

Health practices of Canadian physicians

Erica Frank MD MPH Carolina Segura MD

ABSTRACT

OBJECTIVE To study the health and health practices of Canadian physicians, which can often influence patient health.

DESIGN Mailed survey.

SETTING Canada.

PARTICIPANTS A random sample of 8100 Canadian physicians; 7934 were found to be eligible and 3213 responded (40.5% response rate).

MAIN OUTCOME MEASURES Factors that influence health, such as consumption of fruits and vegetables, amount of exercise and alcohol consumption, smoking status, body mass index, and participation in preventive health screening measures, as well as work-life balance and emotional stability.

RESULTS Canadian physicians are healthy. More than 90% reported being in good to excellent health, and only 5% reported that poor physical or mental health made it difficult to handle their workload more than half the time in the previous month (although a quarter had reduced work activity because of long-term health conditions). Eight percent were obese, 3% currently smoked cigarettes, and 1% typically consumed 5 drinks or more on days when they drank alcohol. Physicians averaged 4.7 hours of exercise per week and ate fruits and vegetables 4.8 times a day. Their personal screening practices were largely compliant with Canadian Task Force on Preventive Health Care recommendations. They averaged 38 hours per week on patient care and 11 hours on other professional activities. Fifty-seven percent agreed that they had a good work-life balance, and 11% disagreed with the statement "If I can, I work when I am ill."

CONCLUSION Compared with self-reports from the general Canadian population, Canadian physicians, like American physicians, seem to be healthy and to have generally healthy behaviour. There is, however, room for improvement in physicians' personal and professional well-being, and improving their personal health practices could be an efficient and beneficent way to improve the health of all Canadians.

EDITOR'S KEY POINTS

- There has never been a comprehensive study of Canadian physicians' mental and physical health, and few large national studies have been conducted anywhere in the world.
- Canadian physicians are healthy compared with the general population—more than 90% of physicians reported being in good to excellent health. However, 30% felt that their work environment presented a barrier to maintaining good health.
- Canadian physicians typically believed they were perceived as more professional if they led balanced, healthy lifestyles, yet only half agreed they had actually achieved that balance.
- Further studies should examine whether Canadian physicians' health practices affect the way they counsel patients on corresponding issues (as has been shown in the United States)—it would be efficient and beneficial to improve the health of the whole population by improving the health habits of a few.

*Full text is available in English at www.cfp.ca.

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Habitudes de santé des médecins canadiens

Erica Frank MD MPH Carolina Segura MD

RÉSUMÉ

OBJECTIF Étudier la santé et les saines habitudes des médecins qui, peuvent influencer la santé des patients.

TYPE D'ÉTUDE Enquête postale.

CONTEXTE Canada.

PARTICIPANTS Un échantillon aléatoire de 8100 médecins canadiens; parmi les 7934 jugés éligibles, 3213 ont répondu (taux de réponse de 40%).

PRINCIPAUX PARAMÈTRES À L'ÉTUDE Facteurs qui influencent la santé, tels que: la consommation de fruits et de légumes, l'exercice physique et l'alcool consommé, le tabagisme, l'indice de masse corporelle, la participation à des dépistage préventifs, l'équilibre entre vie privée et travail, et la stabilité émotionnelle.

RÉSULTATS Les médecins canadiens sont en santé. Plus de 90% disaient être en bonne ou excellente santé, et seulement 5% rapportaient avoir éprouvé de la difficulté à accomplir leur travail plus de la moitié du temps au cours du dernier mois en raison d'une mauvaise condition physique ou mentale (bien que le quart des sujets avaient réduit leurs activités professionnelles en raison d'affections chroniques). Huit pour cent étaient obèses, 3% fumaient la cigarette et 1% prenaient typiquement 5 consommations ou plus les jours où ils consommaient de l'alcool. Les médecins faisaient en moyenne 4,7 heures d'exercice par semaine et mangeaient des fruits et légumes 4,8 fois par jour. Leurs habitudes personnelles de dépistage étaient généralement conformes aux recommandations du Groupe d'étude canadien sur les soins de santé préventifs. Ils consacraient en moyenne 38 heures par semaine aux soins des patients et 11 heures à d'autres activités professionnelles. Cinquante-sept pour cent estimaient respecter un bon équilibre travail-vie privée, et 11% n'étaient pas d'accord pour dire: « Si je peux, je travaille quand je suis malade ».

CONCLUSION En comparaison des déclarations venant de la population générale canadienne, les médecins canadiens, à l'instar des médecins américains, semblent être en bonne santé et avoir, en général, de saines habitudes de vie. Il y a toutefois place à l'amélioration sur le plan du bien-être personnel et professionnel des médecins, et une amélioration apportée à leurs habitudes de vie en matière de santé pourrait s'avérer un moyen efficace et bénéfique d'améliorer la santé de tous les Canadiens.

POINTS DE REPÈRE DU RÉDACTEUR

- Il n'y a jamais eu d'étude approfondie sur la santé physique et mentale des médecins canadiens, et peu d'études nationales d'envergure ont traité de ce sujet dans le monde.
- Les médecins canadiens sont en bonne santé par rapport à la population générale, plus de 90% disant être en bonne ou en excellente santé. Toutefois, 30% estimaient que leur milieu de travail représentait un obstacle au maintien d'une bonne santé.
- En général, les médecins canadiens croyaient donner l'impression d'être de meilleurs professionnels s'ils avaient un mode de vie équilibré et sain, et pourtant, seulement la moitié d'entre eux disaient avoir atteint cet équilibre.
- Des études complémentaires devraient examiner si les saines habitudes des médecins canadiens influencent la façon dont ils conseillent leurs patients à ce sujet (comme on l'a démontré aux États-Unis)—mais aussi l'influence des médecins sur le comportement des patients - il serait efficace et bénéfique d'améliorer la santé de toute la population en améliorant les habitudes en matière de santé de quelques-uns.

*Le texte intégral est accessible en anglais à www.cfp.ca.

Cet article a fait l'objet d'une révision par des pairs.

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In this paper, we describe some of the personal health practices and health-related behaviour of Canadian physicians; these data matter because they likely affect the health of all Canadians through physician role modeling and “preaching what we practise.”¹ Although there have been some smaller studies of specific behaviour and characteristics of Canadian physicians,²⁻⁴ there has never been a comprehensive study of their mental and physical health, and few large national studies of physician health have been conducted elsewhere in the world. The Canadian studies that have been conducted suggest that several health variables (especially mental health variables) warrant improvement; the data from this article will form a baseline for creating interventions for physician health promotion, assessing their effects on physicians’ (and subsequently patients’) health outcomes.

METHODS

A survey was developed in collaboration with the Canadian Medical Association (CMA), with input from the Association of Faculties of Medicine of Canada, the BC Physician Health Program, the Canadian Association of Interns and Residents, the Canadian Physician Health Network, the College of Family Physicians of Canada, and the Royal College of Physicians and Surgeons of Canada. Many of the questions were taken verbatim from the Canadian Community Health Survey, the National Survey of the Work and Health of Nurses, and the Behavioral Risk Factor Surveillance System to allow various comparisons to be made.⁵⁻⁷ (A copy of the survey is available from the authors.)

Before distribution, the survey was promoted in several CMA-related venues, and the protocol was piloted and approved by the University of British Columbia Institutional Review Board. We sent the questionnaires and cover letters to 8100 physicians randomly selected from the CMA membership database, excluding residents and retired physicians.

All materials were available in English and French. The initial survey mailing (late November 2007) and first follow-up mailing (mid-December 2007) were sent to the entire sample of physicians. A reminder e-mail was sent (to those whose e-mail addresses were available) in January 2008, followed by a third survey mailing to all nonrespondents; a fourth follow-up letter was sent to BC physicians in March 2008. Survey responses were accepted until May 2008. To ensure anonymity, an external third party created a blinded system. As an incentive, all sampled physicians could participate in a draw for 2 \$1000 prizes. From the original mailing list, 166 physicians had no known mailing address or were retired, residents, or working abroad; eliminating these cases reduced the original study population to 7934 possible participants.

RESULTS

We received 3213 completed surveys, for a response rate of 40.5%. We ran data tables in SPSS (statistical analysis software) and applied χ^2 and ANOVA (analysis of variance) testing. We weighted data for nonresponse using the raking ratio method to match physicians’ demographic characteristics known to the CMA: province by type of physician (generalist vs other specialist) and sex by age group (20-39, 40-49, 50-59, 60-69, and ≥ 70 years).

As shown in **Table 1**, one-third of respondents were women and one-third were born outside of Canada. Respondents were most likely to be middle-aged; in private, group-based, or urban or suburban practices; and paid fee-for-service. Almost half were family physicians and more than half of respondents came from Ontario or Quebec (36% and 24%, respectively; data not shown). Physicians spent a median of 40 hours per week on patient care (mean 37.5) and a median of 6 hours per week on other professional activities, such as administration, management or committee work, teaching, research, or continuing medical education (mean 10.5). Those physicians who accepted on-call hours were on call for a median of 60 hours per month, and spent a median of 10 of those hours in direct patient care.

More than 90% of physicians reported being in good to excellent health, while 5% reported that poor physical or mental health had made it difficult for them to handle their workloads at least half of the time in the previous 4 weeks (**Table 2**). Twenty-three percent of women and 20% of men reported a history of anhedonia for 2 or more weeks in the past 12 months, and 29% of women and 20% of men reported a history of sadness or depression for 2 or more weeks in the past 12 months. A quarter of respondents had long-term physical or mental conditions, or other health problems, that had reduced the amount or changed the nature of their activity at work, and 13% had somehow modified their work environments because of disability. Nearly all (86%) had disability insurance and 86% also recognized its importance; most (75%) were satisfied with their disability insurance, but 9% had been denied such coverage.

Regarding physical health characteristics (**Tables 3-5**), most of the female but less than half of the male physicians were at a healthy weight, which was (like most of our sex-related comparisons) a highly statistically significant difference ($P < .001$) between the sexes; 8% of physicians were obese. Only 25% of Canadian physicians had smoked more than 100 cigarettes in their lifetimes. Among Canadian physicians who had ever smoked, 8% currently smoked daily, 6% smoked occasionally, and 87% did not currently smoke, making a total of 3.3% of physician respondents current smokers. In the past month, 5% of male and 1% of female

Table 1. Demographic characteristics of physician respondents: *N* = 3213.

CHARACTERISTIC	%
Sex	
• Female	34
• Male	66
Birthplace	
• Canada	68
• Elsewhere	32
Age, y	
• <45	34
• 45-64	55
• ≥65	12
Location of medical school	
• Canada	79
• United States	1
• Other country	20
Specialty*	
• Anesthesiology	6
• Community medicine	2
• Family medicine	45
• Internal medicine	8
• Obstetrics and gynecology	4
• Pathology or laboratory medicine	2
• Pediatrics	5
• Psychiatry	8
• Radiology	3
• Surgical specialties	10
• Other	22
Main practice setting	
• Inner city	20
• Urban or suburban	59
• Rural, small town, or remote	21
Work setting*	
• Private office or clinic (excluding free-standing walk-in clinics)	55
• Community clinic or community health centre	11
• Free-standing walk-in clinic	7
• Academic health sciences centre	29
• Community hospital	37
• Emergency department (community hospital or academic centre)	16
• Nursing home, home for the aged	11
• Administrative office	6
• Research unit	3
• Free-standing laboratory or diagnostic clinic	2
• Other	7
Primary professional income source [†]	
• Fee-for-service (insured or uninsured)	71
• Salary	13
• Capitation	3
• Sessional, per diem, or hourly	6
• Service contracts	5
• Other	3

*Percentages total more than 100% owing to more than 1 answer per respondent.

[†]Percentages total more than 100% owing to rounding.

Table 2. Basic health and disability status of physician respondents: *N* = 3213.

DESCRIPTION	%*
General health status	
• Excellent	24
• Very good	42
• Good	26
• Fair	8
• Poor	1
Physical health made it difficult to work in past mo	
• None of the time	76
• Some of the time	19
• Half of the time	2
• Most of the time	1
• All of the time	1
Mental health made it difficult to work in past mo	
• None of the time	74
• Some of the time	22
• Half of the time	2
• Most of the time	2
• All of the time	1
Mental health status	
• ≥2 wk of anhedonia in the past y	21
• Depressed for ≥2 wk in the past y	23
• Thought about death a lot during those ≥2 wk	37 [†]
Long-term health condition reduces work activity	
• Never	76
• Sometimes	20
• Often	4
Modified work environment because of a disability	
• No	88
• Yes (practising with minor disability-related work modifications)	7
• Yes (practising with major disability-related work modifications)	6
Disability insurance is important for me	
• Strongly agree	48
• Agree	38
• Neither agree nor disagree	9
• Disagree	4
• Strongly disagree	2
Have disability insurance	
• Yes	86
Satisfied with disability insurance	
• Strongly agree	25
• Agree	50
• Neither agree nor disagree	14
• Disagree	9
• Strongly disagree	2
Ever denied disability insurance	
• Yes	9

*Percentages might not add to 100% owing to rounding.

[†]Proportion calculated based on the number of respondents who experienced anhedonia or depression for ≥2 wk.

Table 3. Body mass index (BMI) of family physician respondents by sex: N=3213; P <.001.

BMI	% TOTAL	% FEMALE	% MALE
< 18.5 kg/m ²	1	3	1
18.5 ≤ 25 kg/m ²	54	72	44
25 ≤ 30 kg/m ²	37	18	46
> 30 kg/m ²	8	7	9

physicians had smoked cigars, and less than 1% of physicians of either sex had smoked a pipe. Most physicians of both sexes reported drinking alcohol in the past year. During the past month, those who drank had typically consumed 1 to 2 drinks per session. One-fifth of female and one-third of male physicians had consumed 5 drinks or more at least once in the past year, and 4% of women and 12% of men had done so at least monthly. In the

past year, on days when they drank, 0.8% of female and 1.3% of male physicians typically drank 5 drinks or more. One-third consumed daily multivitamins and minerals. Physician respondents exercised an average of 4.7 hours per week, including mild exercise. Women ate fruits and vegetables 5.3 times daily and men 4.5 times daily, on average; Canadian physicians drank caffeinated beverages 1 to 2 times a day.

More than half of male and three-quarters of female physicians had received physical checkups in the past 2 years, and more than 80% had had their blood pressure checked in the past 2 years. Although three-quarters of both sexes had received influenza vaccinations in the previous year and three-quarters of female physicians had received clinical breast examinations in the past 2 years, only one-third of men had received testicular examinations from clinicians in the past 2 years. All but 15% of men and 22% of women had had their

Table 4. Tobacco use and alcohol consumption of physician respondents by sex: N = 3213.

SURVEY QUESTION	% TOTAL	% FEMALE	% MALE	PVALUE
How often do you now smoke cigarettes?				<.001
• Daily	8	8	8	
• Occasionally	6	4	6	
• Not at all	87	88	86	
When did you stop smoking cigarettes? (ex-smokers only)				.0009
• < 1 y ago	3	2	3	
• 1-2 y ago	3	2	3	
• 3-5 y ago	4	4	4	
• > 5 y ago	90	92	90	
In the past month have you done the following?				
• Smoked cigars	4	1	5	<.001
• Used chewing tobacco or snuff	0.4	0.3	0.4	<.0358
• Smoked a pipe	0.4	1	1	<.001
• Smoked part or all of a cigarette	4	3	5	<.001
How often do you now drink alcohol?				.001
• Less than once a mo	20	25	17	
• Once a mo	5	7	5	
• 2-3 times a mo	12	14	10	
• Once a wk	15	14	16	
• 2-3 times a wk	23	23	23	
• 4-6 times a wk	19	14	21	
• Every day	7	3	9	
How many drinks do you average when you drink?				<.001
• 1 drink	48	58	43	
• 2 drinks	38	34	40	
• 3 drinks	10	5	13	
• 4 drinks	3	1	3	
• 5 drinks	0.3	1	1	
• ≥ 6 drinks	1	1	1	
How often in the past 12 mo have you had ≥ 5 drinks on 1 occasion?				<.001
• Never	70	81	64	
• Less than once a mo	21	15	24	
• Once a mo	5	2	6	
• 2-3 times a mo	3	1	3	
• Once a wk	1	0.4	2	
• More than once a wk	1	1	1	

cholesterol measured in the past 5 years and all but 14% of female physicians had had Papanicolaou tests in the past 3 years. Among women physicians younger than 45 years of age, 79% had never received mammograms compared with 15% of those 45 to 64 years of age and 6% of those 65 years of age and older. Fourteen percent of those younger than 45 years, 68% of those between the ages of 45 and 64 years, and 66% of those 65 years of age and older had received mammograms within the past 2 years (data not shown). **Table 6** further outlines the clinical preventive measures undertaken by physician respondents.

Table 7 addresses Canadian physicians' personal and professional attitudes. Female and male physicians both typically believed that they were considered more professional if they lived balanced lives, but only about half agreed that they had good work-life balance. About 30% disagreed that they worked in environments that encouraged them to be healthy. Only 11% disagreed with working when they were ill if they could work, and all but a quarter of physicians did self-care if they could. However, almost all respondents said they were aware of resources that they would be comfortable using if they needed help for a physical health problem; 15% were not aware of resources that they would be comfortable using if they needed help for a mental health or substance abuse problem.

Table 5. Nutrition and exercise habits of physician respondents by sex: N = 3213; P < .001.

BEHAVIOUR	TOTAL	FEMALE	MALE
Proportion consuming multivitamin or mineral			
• Daily	31	35	30
• Weekly	41	45	39
Proportion consuming calcium			
• Daily	18	28	13
• Weekly	25	38	18
Proportion consuming other vitamin or mineral supplements			
• Daily	25	26	24
• Weekly	30	32	29
Median (mean) min/wk of exercise			
• Total	225 (281)	210 (255)	240 (295)
• Mild	90 (124)	90 (112)	90 (130)
• Moderate	60 (80)	45 (74)	60 (82)
• Vigorous	40 (82)	30 (71)	45 (86)
Mean times/day eating fruits and vegetables	4.8	5.3	4.5
Median (mean) servings/day of caffeine	2 (1.8)	1 (1.6)	2 (1.9)

Table 6. Clinical preventive health measures undertaken by physician respondents by sex, from time of survey: N = 3213; P < .001.

PREVENTIVE MEASURE	% TOTAL	% FEMALE	% MALE
Physical checkup			
• < 1 y	39	48	35
• 1 < 2 y	22	25	20
• 2 < 3 y	9	10	9
• 3 < 4 y	4	3	4
• 4 < 5 y	3	2	4
• ≥ 5 y	16	8	19
• Never	7	3	8
Blood pressure check			
• < 1 y	67	70	66
• 1 < 2 y	17	19	17
• 2 < 3 y	6	6	6
• 3 < 4 y	3	2	3
• 4 < 5 y	2	1	2
• ≥ 5 y	5	2	6
• Never	1	1	1
Breast or testicular examination (by clinician)			
• < 1 y	30	49	20
• 1 < 2 y	18	25	14
• 2 < 3 y	7	9	7
• 3 < 4 y	4	4	4
• 4 < 5 y	3	2	3
• ≥ 5 y	14	6	18
• Never	25	5	35
Influenza vaccine			
• < 1 y	75	76	75
• 1 < 2 y	10	11	10
• 2 < 3 y	3	3	3
• 3 < 4 y	1	1	1
• 4 < 5 y	1	0.2	1
• ≥ 5 y	2	2	2
• Never	8	7	9
Cholesterol measurement			
• < 1 y	44	34	49
• 1 < 2 y	21	23	20
• 2 < 3 y	11	12	10
• 3 < 4 y	5	6	4
• 4 < 5 y	3	2	3
• ≥ 5 y	7	7	7
• Never	10	15	8
Mammography			
• < 1 y		26	N/A
• 1 < 2 y		16	
• 2 < 3 y		5	
• 3 < 4 y		2	
• 4 < 5 y		2	
• ≥ 5 y		4	
• Never		45	
Papanicolaou smear			
• < 1 y		47	N/A
• 1 < 2 y		29	
• 2 < 3 y		11	
• 3 < 4 y		4	
• 4 < 5 y		2	
• ≥ 5 y		6	
• Never		2	

DISCUSSION

Compared with the rest of Canadians,^{8,9} Canadian physicians were less likely to be women (34% vs 50%), less likely to be Canadian-born (68% vs 82%), and similarly likely to be from Ontario or Quebec (34% and 24% of doctors vs 39% and 23% of all Canadians).⁹ They aver-

aged 38 hours per week on patient care and an extra 11 hours on other professional activities, considerably more than the average employed Canadian's 36.5 working hours per week.¹⁰

Like US physicians,^{1,11} Canadian physicians are healthy compared with the general population, reporting a health status like that of much younger Canadians. Nearly all (92%) of the (primarily middle-aged) physicians in our study reported being in at least good health, and 66% reported being in very good or excellent health, which is similar to the 70% of 20- to 34-year-old Canadians who reported being in very good or excellent health.¹² For one-quarter of Canadian physicians, poor physical or mental health had made it difficult to handle their work at least some time in the previous month; for another quarter, long-term physical, mental, or other health conditions reduced their work activity. This frequency of limitations is on par with the 24% of 35- to 44-year-old Canadians reporting limitations in home, school, work, and other activities because of chronic physical or mental conditions and considerably less than the 35% of Canadians 45- to 64-years-old and 53% of Canadians 65 years of age and older reporting such limits.¹³

Regarding important physical health characteristics and practices, Canadian physicians (like physicians in the United States¹) did well compared with their patients. Only 25% of women physicians versus 53% of other Canadian women and 55% of men physicians versus 65% of other Canadian men were overweight. These results are similar to numbers reported in the United States, where only 10% of female and 36% of male medical students were overweight—very positive results when compared with their same-age peers, of which 52% of women and 58% of men were overweight. More than half of female and nearly half of male physicians typically ate 5 servings of fruits and vegetables a day; this also compares favourably with the approximately 48% of other Canadian women and 34% of men who did so.¹⁴ Our method of screening levels of fruit and vegetable consumption was validated with 5 in-person 24-hour recalls conducted with 88 medical students.

As in the United States (where about 4% of physicians smoke cigarettes),^{15,16} 3.3% of Canadian physicians smoke (versus 18% and 15% of other Canadian women and men, respectively). Most consume alcohol at least monthly (75% of women and 83% of men physicians), almost identical to the 77% of other Canadian women and 82% of other Canadian men who reported drinking alcohol in the past year.¹⁷ But (as reported among US female physicians),¹⁵ Canadian physicians were substantially less likely to report typically drinking 5 drinks or more on 1 occasion compared with the general population: 0.8% of female physicians versus 9% of other Canadian women and 1.3% of male physicians versus 23% of other Canadian men.¹⁷ Physicians averaged 20 to

Table 7. Personal and professional attitudes of physician respondents toward physician health practices by sex: N = 3213; P < .001.

DESCRIPTION	% TOTAL	% FEMALE	% MALE
I feel I am perceived as being more professional if I live a more balanced life			
• Strongly agree	23	23	23
• Agree	51	50	52
• Neither agree nor disagree	18	19	18
• Disagree	7	8	6
• Strongly disagree	1	1	1
I feel that I have a good balance between work and other activities in my life			
• Strongly agree	14	14	14
• Agree	43	42	44
• Neither agree nor disagree	18	18	19
• Disagree	21	22	20
• Strongly disagree	4	4	3
My work environment generally encourages me to be healthy			
• Strongly agree	6	6	6
• Agree	28	26	29
• Neither agree nor disagree	36	36	36
• Disagree	24	26	23
• Strongly disagree	6	6	5
If I can, I work when I am ill			
• Strongly agree	19	19	19
• Agree	61	62	61
• Neither agree nor disagree	9	8	9
• Disagree	10	10	10
• Strongly disagree	1	1	1
If I can, I take care of my own medical needs			
• Strongly agree	9	9	8
• Agree	49	52	48
• Neither agree nor disagree	17	14	19
• Disagree	22	22	22
• Strongly disagree	3	3	3
I know of resources that I would feel comfortable using if I needed help for a physical health problem			
• Strongly agree	20	21	19
• Agree	65	65	65
• Neither agree nor disagree	10	8	10
• Disagree	5	5	5
• Strongly disagree	1	1	1
I know of resources that I would feel comfortable using if I needed help for a mental health/substance use problem			
• Strongly agree	14	15	13
• Agree	55	54	56
• Neither agree nor disagree	16	14	17
• Disagree	13	14	12
• Strongly disagree	2	3	2

25 minutes of moderate or vigorous exercise daily, compared with the American College of Sports Medicine and American Heart Association's recommended guideline of 30 minutes or more.¹⁸

Complying with the Canadian Task Force on Preventive Health Care's (CTFPHC's) recommendations, 75% of Canadian physicians had received influenza vaccines in the past year, while only 34% of other Canadians did so. Per CTFPHC recommendations, 86% of women physicians had had Papanicolaou smears in the past 3 years or less (vs 75% of other Canadian women). Two-thirds of those younger than age 45 years had received mammograms, suggesting room for improved compliance with CTFPHC mammography guidelines (every 1 to 2 years for women 40 to 49 years of age and yearly for women 50 years or older). All but 15% of men and 22% of women physicians had had their cholesterol levels checked in the past 5 years, again showing good compliance with CTFPHC recommendations to establish a cholesterol baseline. Both Canadian physicians and non-physicians¹⁹ were very likely to have had their blood pressure checked in the past 2 years (approximately 85%).

Canadian physicians typically believed they were perceived as being more professional if they lived balanced lives. However, there were obviously barriers to achieving this, as only half agreed that they had actually reached good work-life balance. Most agreed that they worked in environments that supported healthy behaviour, an encouraging finding that we intend to build upon in the next phases of this work (health promotion intervention). Nonetheless, Canadian physicians do push themselves: only 11% would not work when they were ill if they could work and the majority performed self-care if they could. However, nearly all said that they knew of resources they would be comfortable using if they needed help for a physical health problem, and most knew of good resources for a mental health or substance use problem.

Limitations and strengths

One study limitation was our reliance on self-reporting; although there are no practical alternatives for collecting data for many of these variables (eg, alcohol, vitamin, or caffeine intake), it does limit the data's reliability. Our response rate was 40.5%; this compares favourably to the response rates of many physician surveys, including other large surveys of Canadian physicians (36% in a 2004 national study²⁰). Our weighted data reflected national physician data for specialty, sex, and age group. An examination by mailing wave (an indicator of non-response bias) of general health status, body mass index, smoking habits, and drinking habits found no consistent or major trends, showing that later respondents (and suggesting that nonrespondents) did not have meaningfully different health behaviour than earlier responders.

Conclusion

Our next steps with these data will be to determine if Canadian physicians are like US and Colombian medical students and physicians^{1,21,22}: do we practise what we preach? We will then identify and pursue variables that would best complement such findings. For example, in this paper, we showed that Canadian physicians' fruit and vegetable intake is higher than that of the general Canadian population, but still only about half of Canadian physicians eat the recommended 5 servings per person per day. If it turns out (as it did in the United States^{1,21} and Colombia²³) that physicians' personal dietary habits are highly correlated with how they counsel patients about nutrition, it would be sensible to promote fruit and vegetable consumption among physicians to make them more avid nutrition counselors in turn. It would be efficient and beneficial to improve the health of the whole population by improving the health habits of a few.

Dr Frank is a Professor and Canada Research Chair and **Dr Segura** is a postdoctoral scholar in the School of Population and Public Health and the Department of Family Practice at the University of British Columbia in Vancouver.

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Contributors

Drs Frank and Segura contributed to concept and design of the study; data gathering, analysis, and interpretation; and preparing the manuscript for submission.

Competing interests

None declared

Correspondence

Dr Erica Frank, Professor and Canada Research Chair, School of Population and Public Health and Department of Family Practice, University of British Columbia, 5804 Fairview Ave, Vancouver, BC V6T 1Z3; telephone 604 822 4925; e-mail efrank@emory.edu

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