

Editor's key points

► The authors conducted chart audits at primary care clinics across 7 provinces and 1 territory to assess wait times between patients' referral to specialists and their appointments (wait time 1). This is the first Canada-wide study describing wait times using primary care-derived data.

► The national median wait time for all referrals (including urgent) was 78 days (11 weeks), with 1 in 4 patients having to wait 175 days (25 weeks) or longer for their specialist appointments.

► Previous Ontario- and Alberta-based studies conducted between 2005 and 2011 reported median wait time 1s ranging from 5 to 11 weeks. A more recent Ontario-based study reported a mean wait time for a specialist appointment of 8.6 weeks, with some specialties having waits of 15 to 24 weeks.

► The authors recommend setting a maximum 6-month wait time benchmark for nonurgent referrals in Canada, a suggestion aligned with the Canadian Medical Protective Association's recommendation. However, they note that a 6-month wait time exceeds the 3-month period considered acceptable by patients.

How long are Canadians waiting to access specialty care?

Retrospective study from a primary care perspective

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Abstract

Objective To calculate patient wait times for specialist care using data from primary care clinics across Canada.

Design Retrospective chart audit.

Setting Primary care clinics.

Participants A total of 22 primary care clinics across 7 provinces and 1 territory.

Main outcome measures Wait time 1, defined as the period between a patient's referral by a family physician to a specialist and the visit with said specialist.

Results Overall, 2060 referrals initiated between January 2014 and December 2016 were included in the analysis. The median national wait time 1 was 78 days (interquartile range [IQR] of 34 to 175 days). The shortest waits were observed in Saskatchewan (51 days; IQR=23 to 101 days) and British Columbia (59 days; IQR=29 to 131 days), whereas the longest were in New Brunswick (105 days; IQR=43 to 242 days) and Quebec (104 days; IQR=36 to 239 days). Median wait time 1 varied substantially among different specialty groups, with the longest wait time for plastic surgery (159 days; IQR=59 to 365 days) and the shortest for infectious diseases (14 days; IQR=6 to 271 days).

Conclusion This is the first national examination of wait time 1 from the primary care perspective. It provides a picture of patient access to specialists across provinces and specialty groups. This research provides decision makers with important context for developing programs and policies aimed at addressing the largely ignored stage of the wait time continuum from the time of referral to eventual appointment time with the specialist.

Combien de temps les Canadiens attendent-ils pour des soins spécialisés?

Étude rétrospective selon la perspective des soins primaires

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Résumé

Objectif Calculer les temps d'attente des patients pour des soins spécialisés à l'aide des données de cliniques de soins primaires au Canada.

Type d'étude Vérification rétrospective des dossiers.

Contexte Cliniques de soins primaires.

Participants Un total de 22 cliniques de soins primaires dans 7 provinces et 1 territoire.

Principaux paramètres à l'étude Temps d'attente 1, désignant la période entre la demande de consultation spécialisée par un médecin de famille et le rendez-vous du patient avec ledit spécialiste.

Résultats Dans l'ensemble, 2060 demandes de consultation faites entre janvier 2014 et décembre 2016 ont été incluses dans l'analyse. Le temps d'attente national médian était de 78 jours (écart interquartile [IQR] de 34 à 175 jours). Les attentes les plus courtes ont été observées en Saskatchewan (51 jours; IQR=23 à 101 jours) et en Colombie-Britannique (59 jours; IQR=29 à 131 jours), tandis que les plus longues se trouvaient au Nouveau-Brunswick (105 jours; IQR=43 à 242 jours) et au Québec (104 jours; IQR=36 à 239 jours). Le temps d'attente 1 médian variait considérablement selon les groupes de spécialistes, et cette attente était la plus longue en chirurgie plastique (159 jours; IQR=59 à 365 jours) et la plus courte en maladies infectieuses (14 jours; IQR=6 à 271 jours).

Conclusion Il s'agit du premier examen national du temps d'attente 1 selon la perspective des soins primaires. L'étude dresse un portrait de l'accès à des spécialistes par les patients selon la province et les groupes de spécialistes. Cette recherche procure aux décideurs une importante contextualisation pour élaborer des programmes et des politiques visant à régler cette étape largement ignorée du continuum des temps d'attente du moment de la demande de consultation jusqu'à l'éventuel rendez-vous avec un spécialiste.

Points de repère du rédacteur

► Les auteurs ont effectué une vérification des dossiers de cliniques de soins primaires dans 7 provinces et 1 territoire pour évaluer les temps d'attente entre la demande de consultation avec des spécialistes et le rendez-vous des patients (temps d'attente 1). Il s'agit de la première étude à l'échelle du Canada qui décrit les temps d'attente au moyen de données dérivées des soins primaires.

► Le temps d'attente national médian pour toutes les consultations (y compris les urgentes) était de 78 jours (11 semaines), et 1 patient sur 4 avait dû attendre 175 jours (25 semaines) ou plus avant d'avoir son rendez-vous chez le spécialiste.

► Des études antérieures réalisées en Ontario et en Alberta entre 2005 et 2011 faisaient valoir un temps d'attente 1 médian pour avoir un rendez-vous avec un spécialiste variant entre 5 à 11 semaines. Une étude plus récente en Ontario signalait un temps d'attente moyen de 8,6 semaines avant d'avoir un rendez-vous avec un spécialiste, et dans certaines spécialités, il fallait attendre de 15 à 24 semaines.

► Les auteurs ont recommandé de fixer, comme mesure étalon, un temps d'attente maximal de 6 mois pour les demandes de consultation non urgentes, une suggestion qui concorde avec la recommandation de l'Association canadienne de protection médicale. Par ailleurs, ils ont remarqué qu'une attente de 6 mois excède la période de 3 mois jugée acceptable par les patients.

Long wait times have become a defining characteristic of the Canadian health care system. In 2016, the Commonwealth Fund ranked Canada last among 11 countries surveyed on wait times for specialist care.¹ Roughly one-fifth of Canadians report being negatively affected by wait times, citing experiences of stress, anxiety, pain, lost income, delays in diagnosis and treatment, duplications of tests, and deterioration in their conditions.²⁻⁴ In general, patients consider 3 months to be the maximum acceptable wait time for a specialist appointment.⁵⁻⁸

Although Canada has made considerable investments in its effort to address excessive wait times,^{9,10} it has been argued that long wait times are the necessary price for its universal, publicly funded health care system.¹¹ Yet, Canada has been shown to spend more on health care than most high-income Organisation for Economic Co-operation and Development countries with universal health care systems,¹² and the Commonwealth Fund's survey results show that other universal health care systems (eg, the Netherlands, Switzerland, Germany, Australia, and France) have much shorter wait times than Canada does.¹ What these countries do differently than Canada is they allow the private sector to provide core health care insurance and services, require patients to share in the cost of treatment, and fund hospitals based on activity (rather than the global budgets that are the norm in Canada).¹³ In England and Scotland, a maximum wait of 18 weeks from referral by a general practitioner to start of specialty treatment for nonurgent conditions (including specialist consultations and diagnostic testing) is guaranteed in the English National Health Service Constitution.¹⁴ The guarantee is monitored by the Department of Health and Social Care, and any breach of these targets results in reduction of up to 5% of revenue for the relevant specialty in the month in which the breach occurs. Other countries with publicly funded health care systems have initiated benchmarking as a policy tool. For example, Sweden suggests 60 days and New Zealand 6 months as the maximum acceptable length of time between referral and first specialist assessment.¹⁵ In Canada, recommendations include a maximum 6-month wait time benchmark from a family doctor's referral to the provision of any medically required service.¹⁶ Nonetheless, conflicting measurement methodologies leave the process open to criticism.¹⁷ The Canadian Medical Protective Association notes a lack of clarity as to "who is responsible for what," resulting in a lack of comprehensive action to address the problem.¹⁷

Several factors have been identified as contributing to the excessive wait times for access to specialists in Canada, including limited specialty care resources, inconsistency in family physicians' abilities to order advanced diagnostic tests, and higher demands on the health care system at large.¹⁸ Improved communication between providers and streamlining patient flow from primary to specialty care have been identified as critical requirements

for improved access to specialty care in the Canadian Medical Association policy statement, which highlighted a few promising innovations as ones that "should be adopted throughout the country."¹⁹ These include the RACE (Rapid Access to Consultative Expertise) service, which allows primary care providers (PCPs) to reach specialists by telephone for urgent issues, and the Champlain BASE (Building Access to Specialists through eConsultation) eConsult Service, a secure online application connecting PCPs and specialists for nonurgent issues. Results from analyses of these services report prompt response time,²⁰ cost effectiveness,²¹ and high levels of patient and provider satisfaction.²² Building on this success, the RACE and BASE services have joined forces with the Canadian Foundation for Healthcare Improvement, the College of Family Physicians of Canada, Canada Health Infoway, and the Royal College of Physicians and Surgeons of Canada in the Access and Connected Medicine collaboratives, which culminated in a 15-month initiative supporting the launch of one or both services in 8 provinces and territories across Canada.^{23,24} Part of this initiative included conducting a series of chart abstractions in clinics from participating regions to determine the wait time for medical specialist consultations.

To date, efforts to reduce wait times in Canada have focused solely on the period between when a patient first sees a specialist and when they receive treatment. However, in some cases the wait to first see a specialist can be much longer. Here, we report on the findings of our chart audits in order to examine wait times for specialist visits across Canada. To our knowledge, ours is the first clinic-based, national, in-depth study of wait times from a primary care perspective.

— Methods —

Study design

We conducted a retrospective chart audit of primary care practices across Canada.

Setting and population

Primary care practices that participated in the Access or Connected Medicine collaboratives^{23,24} were invited to participate.

Sources of data

Our study drew data from 2 sources: clinic surveys and chart reviews of referral data in patient health records.

Wait time 1

Our measurement of wait times focused on *wait time 1*, the period between when a PCP initiates a referral to a specialist and when the patient sees that specialist.^{25,26} For the purposes of our study, the maximum duration of the follow-up period after the PCP-initiated referral was chosen to be 1 year.

Clinic survey

In each participating practice, clinic leads completed a survey before data collection, which posed questions about the clinic itself (eg, clinic type, number of PCPs), how the clinic is organized, and how it handles the referral process (survey available from the corresponding author on request).

Chart review

Data were collected from electronic medical records (EMRs) or from referral letters in cases where clinics did not use EMRs. Clinics chose whether a research assistant from our team or an administrative staff member (eg, a nurse or referral clerk) would serve as chart abstractor. Chart abstractors were trained through a webinar tutorial and given a chart abstraction manual prepared specifically for this project. Our research team monitored all data collection. The data collected included the date the referral was created, the characteristics of the referral, the date of the specialist appointment, whether there was communication between the specialist and the PCP, patient demographic data, and health care use during the waiting period. Data were collected in the clinic and uploaded to a secure server online.

Sampling

The target sample for the study was 100 cases from each clinic selected over a 1-month period. Participating clinics extracted all referrals, as required. The sampling for each clinic started by randomly selecting the first referral from the list, and then every κ th referral in the frame, where κ was the sampling interval calculated as follows: $\kappa = N/100$, where N was the total number of referrals per study frame for each clinic. In clinics where fewer than 100 referrals were made in any given month, the abstraction interval was extended until the 100-referral quota was met. Owing to a high degree of variation in the ease of retrieving referral data among clinics, the final sample of referrals generated by all clinics spanned an interval from January 2014 to December 2016.

Chart abstractors reviewed charts from the date of the referral request to the date of the specialist appointment, up to a 1-year period. All referrals to medical specialties other than emergency department physicians were included. Diagnostic tests (which require no consultation to occur) and referrals for allied health professionals were excluded. Referrals not managed by the PCP were also excluded. Finally, referrals for which the patient declined the specialist appointment, was a no-show, or changed primary care clinics were also excluded. Referrals were deemed urgent based on the presence of specific key words denoting urgency (eg, *as soon as possible*, *priority*, *urgent*). The chart abstraction form is available from the corresponding author on request.

Analysis

We calculated the median and interquartile range (IQR) of wait time 1, defined as the difference in days between when the PCP requested the referral and when the patient had a face-to-face specialist visit. When there was no mention of the patient having been seen by the specialist within the 1-year review period, a wait time of 365 days was recorded, even in cases where the clinic data allowed estimation of the wait time that extended beyond 1 year. Wait times were described for each province, and counts and proportions were tabulated as appropriate to describe referral and patient characteristics.

Ethics approval

The Ottawa Health Science Network Research Ethics Board provided ethics approval for this study.

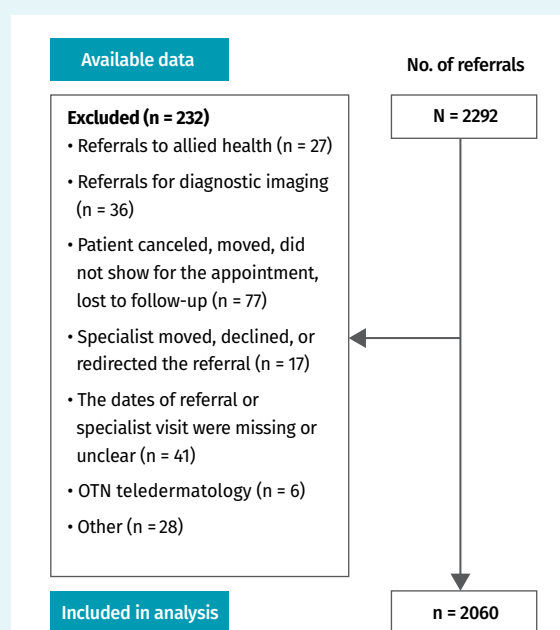
— Results —

A total of 2292 referral charts were abstracted and 2060 were included in the analysis of wait time 1 (Figure 1). The records came from 22 clinics representing 7 provinces and 1 territory (Figure 2). Nineteen clinics completed the clinic information survey.

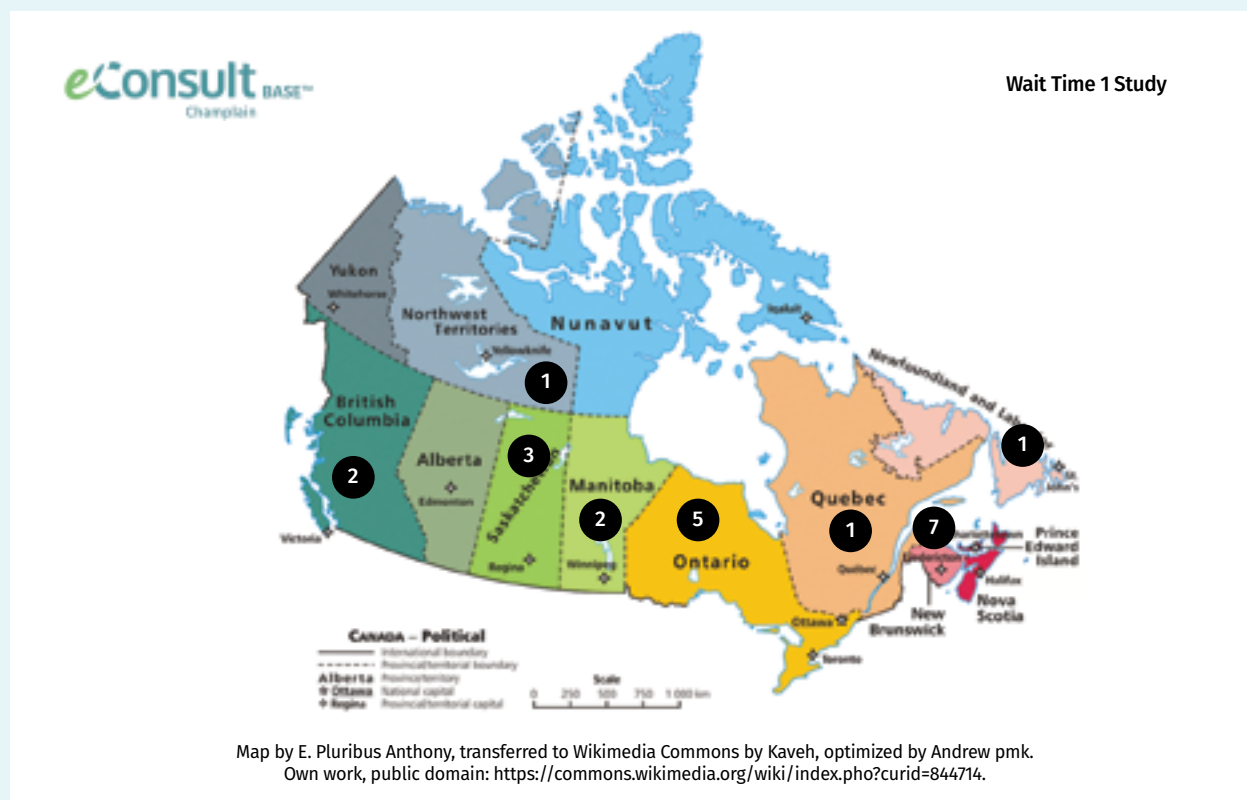
Respondent characteristics

Almost all clinics were in operation for more than 10 years (95%). More than one-third (37%) were solely fee-for-service. Nearly half (47%) reported having on-site specialist services.

Figure 1. Flow of referral data



OTN—Ontario Telemedicine Network.

Figure 2. Distribution of the 22 clinics participating in the national wait time 1 study

Slightly more than one-third (35%) had experience using telemedicine. More than half of respondents (58%) indicated their clinic had a designated referral clerk. Four clinics (21%) reported using electronic means for making referrals, 8 (42%) reported using paper-based methods (eg, fax, mail), and 7 (37%) reported using both. Most clinics could identify specialty type (94%) and reason for referral (90%), and three-quarters (77%) could identify which patients had been referred to a specialist (**Table 1**).

Referral characteristics

Most referrals (59%) were completed on behalf of female patients, 66% were for adult patients, and 20% were for a procedure. The proportion of referrals for procedures varied across jurisdictions, from 4% in British Columbia to 34% in Manitoba. Similarly, referral urgency varied, with Newfoundland and Labrador reporting the highest (14%) and Manitoba the lowest (5%) proportion of urgent referrals (**Table 2**).

Specialty distribution

The most common specialty groups were general surgery (10%), dermatology (9%), gastroenterology (8%), gynecology (8%), otolaryngology (8%), and orthopedics (7%). Cumulatively, these specialties accounted for half of all referrals (**Table 3**).

Wait time 1

In 11% of referrals (217 of 2060), there was no indication the patient had seen the specialist within 1 year of the referral request. In an additional 2% of referrals (34 of 2060), a documented wait time for the specialist appointment was greater than 1 year. In both instances, we assumed a wait time of 365 days in the analyses.

Figure 3 shows median wait time 1s across participating provinces and territories. The median national wait time for all referrals was 78 days (IQR=34 to 175). The shortest wait times were observed in Saskatchewan and British Columbia, where the medians were 51 days (IQR=23 to 101) and 59 days (IQR=29 to 131) respectively, whereas the longest median wait times were in New Brunswick and Quebec, at 105 days (IQR=43 to 242) and 104 days (IQR=36 to 239), respectively. Urgent referrals had a median wait time of 24 days (IQR=7 to 71), while cases where urgency was unclear had a median wait time of 70 days (IQR=28 to 140).

In general, median wait time 1s varied substantially among specialty groups. **Figure 4** shows that plastic surgery had the longest median wait time across specialties at 159 days (IQR=59 to 365), followed by “other” specialties (a group of specialties with fewer than 10 referrals, listed in **Table 3**) at 139 days (IQR=42 to 356), and rheumatology at 115 days (IQR=55 to 176).

Table 1. Characteristics of responding clinics: Out of 22 clinics, 19 completed the clinic information survey, for a response rate of 86%. Not all of the questions were answered by the clinics that completed the surveys.

CHARACTERISTIC	N (%)
Province or territory (N = 19)	
• BC	2 (10.5)
• NT	1 (5.3)
• MB	2 (10.5)
• ON	3 (15.8)
• SK	3 (15.8)
• QC	1 (5.3)
• NL	1 (5.3)
• NB	6 (31.6)
Rurality* (N = 19)	
• Yes	5 (26.3)
• No	14 (73.7)
Designated referral clerk (N = 19)	
• Yes	11 (57.9)
• No	8 (42.1)
Referral method (N = 19)	
• Electronic	4 (21.1)
• Paper (fax, mail, etc)	8 (42.1)
• Both	7 (36.8)
• Other	0 (0.0)
Able to identify specialty type on referral (N = 18)	
• Yes	17 (94.4)
• No	1 (5.6)
Able to identify referral reason on referral (N = 19)	
• Yes	17 (89.5)
• No	2 (10.5)
Able to identify which patients have been referred to a specialist (N = 17)	
• Yes	13 (76.5)
• No	4 (23.5)
Years in operation (N = 19)	
• Less than 1 y	0 (0.0)
• 1 to 4 y	0 (0.0)
• 5 to 9 y	1 (5.3)
• More than 10 y	18 (94.7)
Clinic payment model clinic (N = 19)	
• Fee for service	7 (36.8)
• Other	12 (63.2)

Table 1 continued

CHARACTERISTIC	N (%)
On-site specialist services (N = 19)	
• Yes	9 (47.4)
• No	10 (52.6)
Experience with shared care model of patient care with specialists (N = 18)	
• Yes	8 (44.4)
• No	10 (55.6)
Experience using telemedicine (N = 17)	
• Yes	6 (35.3)
• No	11 (61.1)
Telemedicine unit on site (N = 4)	
• Yes	3 (75.0)
• No	1 (25.0)

*Clinics were considered rural if they were located in areas with a population density of less than 400 persons per km².

Infectious diseases had the shortest wait time at 14 days (IQR=6 to 271), followed by neurosurgery at 23 days (IQR= 12 to 77) and oncology at 38 days (IQR= 11 to 49).

Figure 5 shows the proportion of procedural referrals for selected specialties. The highest proportions were made to gastroenterology (57%) and general surgery (54%), followed by plastic surgery (36%), physical medicine and rehabilitation (33%), and immunology and allergy (26%). Colonoscopy made up 48% of all gastroenterology referrals and 36% of general surgery referrals.

Specialist-PCP communication

Communication between PCPs and specialists was examined at 2 time points: immediately after a referral was made and after the referral visit took place (**Table 4**). Specialist offices corresponded with PCP clinics after referral in 27% of referrals (553 of 2060) and after the patient's visit in 83% of cases (1710 of 2060), often via a consult letter. British Columbia and Newfoundland and Labrador had the highest proportion of communication with PCPs regarding patients' appointments (66% and 62%, respectively), whereas New Brunswick and Quebec had the lowest (11% and 14%, respectively). Manitoba had the highest proportion of follow-up correspondence after the patient's visit with the specialist (96%), whereas Quebec had the lowest (68%).

— Discussion —

This is the first Canada-wide study describing wait times using primary care-derived data. The results indicate that, despite national and provincial investment in strategies to reduce wait times, patients across Canada continue to face substantial delays when accessing specialist care. The national median wait time for all referrals

Table 2. Characteristics of referrals

CHARACTERISTIC	PROVINCE OR TERRITORY, N (%)								
	BC (N = 194)	NT (N = 101)	SK (N = 296)	MB (N = 175)	ON (N = 426)	QC (N = 99)	NB (N = 674)	NL (N = 95)	CANADA (N = 2060)
Urgent referral									
• No	174 (89.7)	92 (91.1)	240 (81.1)	159 (90.9)	344 (80.8)	80 (80.8)	500 (74.2)	82 (86.3)	1671 (81.1)
• Unsure	7 (3.6)	1 (1.0)	24 (8.1)	7 (4.0)	47 (11.0)	9 (9.1)	124 (18.4)	0 (0.0)	219 (10.6)
• Yes	13 (6.7)	8 (7.9)	32 (10.8)	9 (5.1)	35 (8.2)	10 (10.1)	50 (7.4)	13 (13.7)	170 (8.3)
Patient sex									
• Female	136 (70.1)	64 (63.4)	189 (63.9)	81 (46.3)	238 (55.9)	60 (60.6)	381 (56.5)	66 (69.5)	1215 (59.0)
• Male	58 (29.9)	37 (36.6)	107 (36.2)	94 (53.7)	188 (44.1)	39 (39.4)	293 (43.5)	29 (30.5)	845 (41.0)
Patient age									
• Child (0-18 y)	25 (12.9)	9 (8.9)	27 (9.1)	6 (3.4)	24 (5.6)	16 (16.2)	49 (7.3)	7 (7.4)	163 (7.9)
• Adult (19-64 y)	133 (68.6)	84 (83.1)	205 (69.3)	128 (73.1)	247 (58.0)	64 (64.6)	423 (62.8)	67 (70.5)	1351 (65.6)
• Senior (≥65 y)	36 (18.6)	8 (7.9)	64 (21.6)	41 (23.4)	155 (36.4)	19 (19.2)	202 (29.9)	21 (22.1)	546 (26.5)
Procedure									
• No	172 (88.7)	78 (77.2)	228 (77.0)	116 (66.3)	260 (61.0)	72 (72.7)	416 (61.7)	70 (73.7)	1412 (68.5)
• Unsure	14 (7.2)	9 (8.9)	28 (9.5)	0 (0.0)	44 (10.3)	17 (17.2)	125 (18.5)	0 (0.0)	237 (11.5)
• Yes	8 (4.1)	14 (13.9)	40 (13.5)	59 (33.7)	122 (28.6)	10 (10.1)	133 (19.7)	25 (26.3)	411 (20.0)

(including urgent) was 78 days, or 11 weeks, with 1 in 4 patients having to wait 175 days (25 weeks) or longer for their specialist appointment. One in 10 referred patients had no record of seeing the specialist within 1 year.

Our findings suggest that wait times for specialist care in Canada have become worse in recent years. Previous Ontario- and Alberta-based studies conducted between 2005 and 2011 reported median wait time 1s ranging from 5 to 11 weeks.^{25,27,28} A more recent Ontario-based study reported a mean wait time for a specialist appointment of 8.6 weeks, with some specialties having waits of 15.1 to 24 weeks.²⁹ Likewise, a recent national survey of physicians in 12 medical specialties revealed that even though the median wait time has decreased from 10.2 weeks in 2017 to 8.7 weeks in 2018, it is still 136% longer than in 1993, when it was observed to be 3.7 weeks.³⁰

This brings up the importance of benchmark setting for referrals from primary to specialty care. We recommend setting a maximum 6-month wait time benchmark for nonurgent referrals in Canada,^{16,31} a suggestion aligned with the Canadian Medical Protective Association's recommendation.¹⁷ However, we note that a 6-month wait time exceeds the 3-month period considered acceptable by patients.⁵⁻⁸ Our results also show that, even if the observed median wait time is well below the 6-month benchmark in certain specialty areas, the 75th percentile often extends beyond this duration, meaning that 25% of Canadian patients still wait too long for care from plastic surgery, nephrology, ophthalmology, psychiatry, endocrinology, and infectious disease specialists.

It is important to reiterate that the uncertainty patients face while waiting leads to adverse emotional effects, including anguish, particularly in those patients who are concerned that disease might be progressing and intervention opportunities might be lost.⁴

In addition, our findings likely underestimate the actual wait times that patients experience for specialist care, as 11% of referrals offered no evidence that the patient had seen the specialist within 1 year. This uncertainty reflects the numerous challenges associated with accurately measuring wait time 1, including differences in work flow and documentation practices and variability introduced by patient triage.³² Previous Canadian studies of wait time 1 have faced low participation rates, a narrow focus on a limited number of specialty groups, and a reliance on monetary incentives.³²⁻³⁴ Furthermore, several of these studies relied on physician or patient surveys conducted after appointments were complete, making them vulnerable to recall bias.^{30,32,34} Those using health administrative data face considerable limitations, as the initial referral date cannot be easily traced back solely from billing information.²⁵ Chart audits, while more labour intensive than surveys, can address many of these issues by drawing data directly from patient charts.^{35,36}

Our findings also suggest that most PCPs received feedback from the specialist after the patient's visit, but slightly more than a quarter received an acknowledgment after initially sending the referral. Although it is important to acknowledge that these estimates were based on correspondence explicitly recorded in the EMR,

Table 3. Distribution of referrals by specialty group

SPECIALTY GROUP	OVERALL PROPORTION (N)
General surgery	10.0 (207)
Dermatology	9.3 (192)
Gastroenterology	8.4 (173)
Gynecology	8.1 (167)
Otolaryngology	7.9 (163)
Orthopedics	7.2 (149)
Urology	5.6 (116)
Cardiology	4.7 (96)
Ophthalmology	4.3 (89)
Internal medicine	4.1 (84)
Neurology	3.8 (79)
Plastic surgery	3.4 (70)
Psychiatry	3.2 (66)
Pediatrics	3.2 (65)
Immunology and allergy	2.4 (50)
Rheumatology	2.4 (50)
Obstetrics	1.8 (38)
Respirology	1.2 (25)
Endocrinology	1.1 (23)
Sports medicine	1.0 (20)
Nephrology	0.8 (17)
Physical medicine and rehabilitation	0.7 (15)
Oncology	0.7 (14)
Hematology	0.5 (11)
Infectious diseases	0.5 (11)
Neurosurgery	0.5 (11)
Vascular surgery	0.5 (11)
Other*	2.3 (48)

*Includes all specialties that received fewer than 10 cases. In descending order: hepatology, geriatrics, sleep medicine, anesthesiology, thoracic surgery, pain medicine, thrombosis clinic, spinal assessment clinic, genetics, sexual medicine, pulmonary hypertension clinic, oral surgery, methadone clinic, locomotor clinic, fertility (male), bariatric surgery.

and thus do not rule out the possibility of unrecorded exchanges, it shows substantial room to improve communication between specialists and PCPs immediately after referrals are made. As pointed out by the Canadian Medical Association, when referrals are initiated, these requests and communication around them can benefit from standardization of communication methods and information requirements.¹⁹ The implications of poor communication regarding referrals was shown by O'Malley and Reschovsky.³⁷ In their study, 80.6% of specialists said they “always” or “most of the time” send

consultation results to the referring PCP, but only 62.2% of PCPs said they received such information. This finding speaks to the importance of timely communication regarding referrals and how a lack of such communication was perceived as “threatening” to the providers’ ability to provide high-quality care.

Limitations

Our study has several limitations. Although we achieved representation from 7 provinces and 1 territory, the data came from a small number of clinics in most regions, except for New Brunswick (which accounted for 32% of participating clinics), which limits the study’s generalizability. The clinics in this study self-selected to participate and thus might not be representative. In addition, many clinics were part of the Access or Connected Medicine collaboratives focused on improving access to specialty care, which introduced selection bias into the study. Our calculation of wait time 1 varied based on data availability and was subject to the limitations of chart audit methodology, which relies solely on recorded information. In instances where the patient had no recorded visit with a specialist, we assumed a wait time of 1 year, with a realization that this could have been an underestimate or overestimate. Furthermore, referral urgency was determined based on the presence of various key words denoting urgency, which might not have been used consistently. We were unable to account for patient- or provider-level factors that might have contributed and affected the observed wait times. We have not controlled for the availability of different specialties in the different regions. The proportion of referrals for procedures varied between clinics and was as low as 4% in one case (British Columbia), which could suggest under-reporting. Last, anecdotal evidence suggests that for certain specialties with lengthy wait times, where it is practically impossible for a patient to get in via referral, family doctors stop referring.

Despite the growing interest in improving access to specialists, important gaps remain where wait times are concerned. There are still no established mechanisms in place to measure and report on wait times from primary to specialty care across the country.^{29,32,38} This could explain why the literature on factors affecting the duration of this wait time is very limited. For example, the latest national-level study exploring patient- and provider-related factors associated with wait times for an initial specialist consultation comes from the 2007 Canadian Community Health Survey and shows statistically significant differences in wait times by sex (shorter for males), source of referral (shorter for referrals made by specialist or nonphysician health care providers), and for male patients by household income and immigration status.³⁹ A more recent study from Ontario found that patient and physician factors were not consistently associated with wait times for specialist visits, except for

Figure 3. Median wait time 1 by province or territory

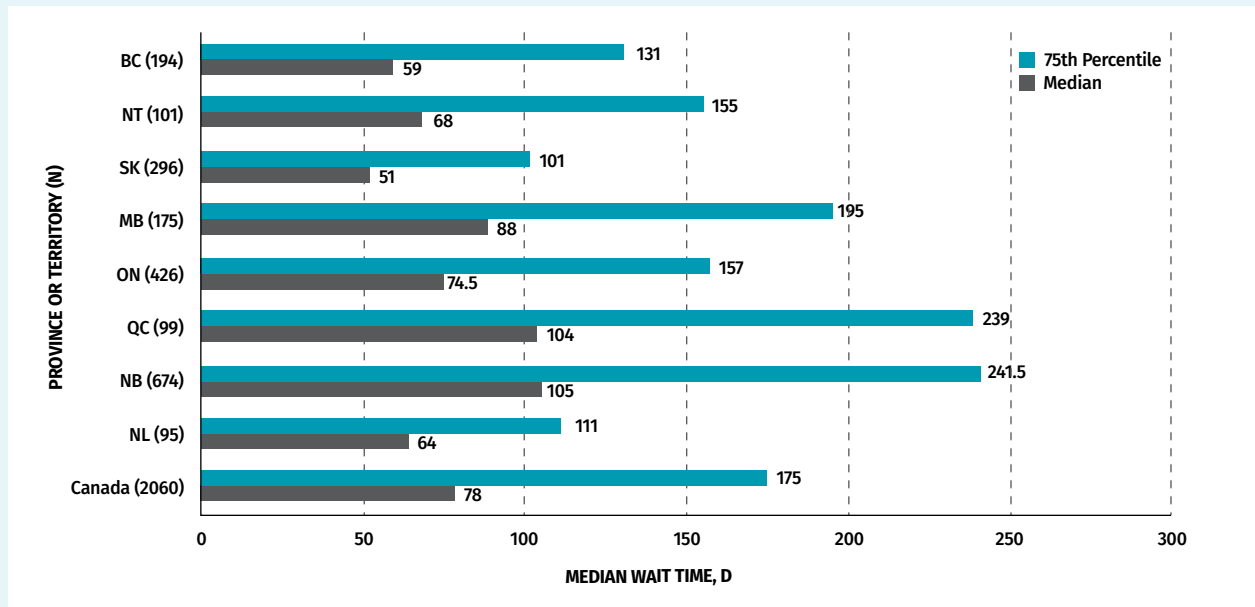


Figure 4. Median wait time 1 by specialty

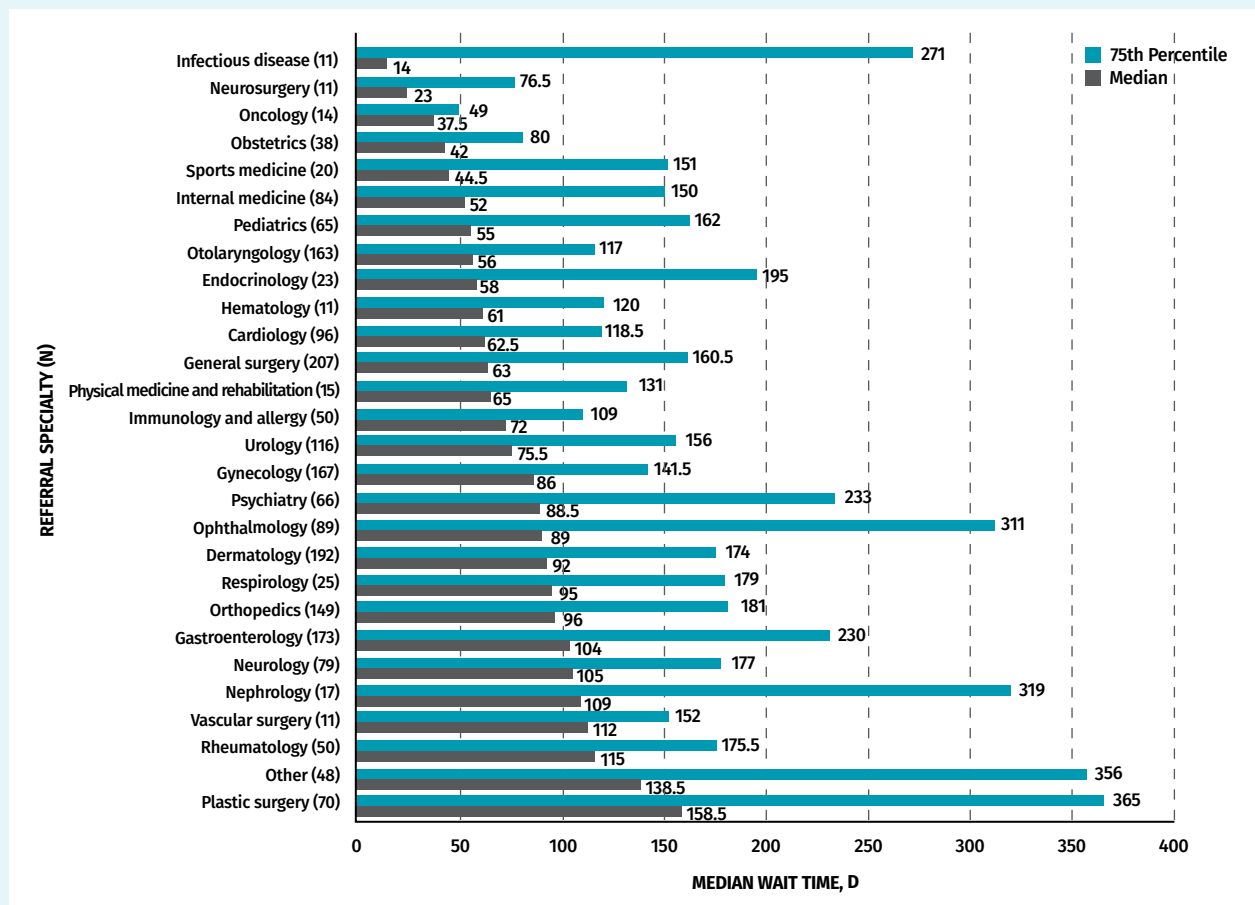


Figure 5. Proportion of procedural referrals by specialty

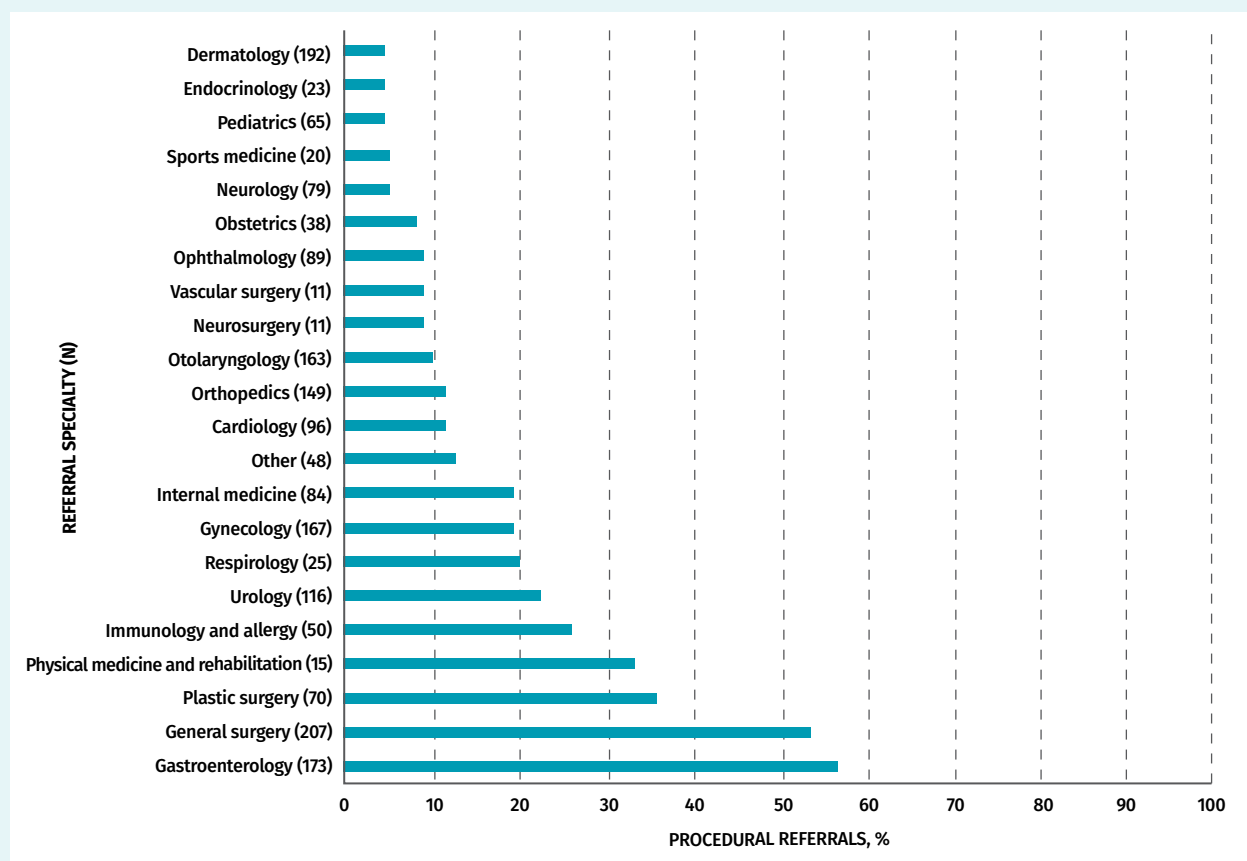


Table 4. Specialist-PCP communication

COMMUNICATION	PROVINCE OR TERRITORY, N (%)								CANADA (N = 2060)
	BC (N = 194)	NT (N = 101)	SK (N = 296)	MB (N = 175)	ON (N = 426)	QC (N = 99)	NB (N = 674)	NL (N = 95)	
Notification of PCP regarding patient's date of specialist appointment	127 (65.5)	31 (30.7)	108 (36.5)	43 (24.6)	97 (22.8)	14 (14.1)	74 (11.0)	59 (62.1)	553 (26.8)
Evidence of follow-up after patient's visit with the specialist	148 (76.3)	93 (92.0)	280 (94.6)	168 (96.0)	338 (79.3)	67 (67.7)	538 (79.8)	78 (82.1)	1710 (83.0)

PCP—primary care provider.

practice location and size, with busy practices having higher referral rates and therefore longer wait times.²⁵ There are other studies that attempted to relate patient-, provider-, and clinic-level factors (eg, socioeconomic status, rurality, remuneration models) to use of specialist services (eg, difficulty of accessing health care services by patients and provider referral rates to specialists),^{40,41} but none of them examined how these variables are associated with wait times for specialists consultations. Future research should explore these factors and their effects on wait time 1 across Canada.

Conclusion

Median wait times to see a specialist in Canada are excessive at 11 weeks (75th percentile of 25 weeks). There are considerable variations across provinces and specialties. Further research is needed to understand these differences. Improvement is needed in PCP-specialist communication, particularly with respect to initial acknowledgment of the referral by the specialist's office. This research provides decision makers with important context for developing programs and policies aimed at addressing excessive wait times experienced by Canadians.

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Contributors

Drs Liddy and **Keely** conceived of and designed the study and contributed to the data analysis. **Drs Moroz, Affleck, Cook, Ireland, Jarrett, MacDonald, Russell, Nabelsi, Singer,** and **McLellan, Mr Drimer, Mr MirafTAB, Ms Crowe, Ms Mihan,** and **Ms Boulay** contributed to data collection and analysis. All authors assisted with writing the manuscript and read and approved the final submitted version.

Competing interests

None declared

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