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SUMMARY

- In 2014, more than 52,000 Canadians received non-emergency medical treatment outside Canada.
- Physicians in British Columbia reported the highest proportion of patients (in a province) receiving treatment abroad (1.6%). The largest number of patients estimated to have left the country for treatment were from Ontario (26,252).
- Across Canada, neurosurgeons reported the highest proportion of patients (in a special-

- ity) travelling abroad for treatment (2.6%). The largest number of patients (in a specialty) travelled abroad for internal medicine procedures (6,559).
- One explanation for patients travelling abroad to receive medical treatment may relate to the long waiting times they are forced endure in Canada's health care system. In 2014, patients could expect to wait 9.8 weeks for medically necessary treatment after seeing a specialist-3 weeks longer than the time physicians consider to be clinically "reasonable" (6.5 weeks).

Introduction

By learning how many Canadians receive health care in another country each year, and the type of care they receive, we can gain some insights about the state of health care in Canada and the state of medical tourism among Canadian residents.

Canadians who choose to seek treatment. abroad do so for several reasons, many of which may relate to their inability to access quality health care in a timely fashion within Canada's borders. Some patients may be sent out of country by the public health care system due to a lack of available resources or because some procedures or equipment are not provided in their home jurisdiction. Others may choose to leave Canada because they are concerned about quality (Walker et al., 2009) and are seeking more advanced health care facilities, state-of-the-art medical technologies, or better outcomes. Others may leave in order to avoid some of the adverse medical consequences of waiting for care, such as worsening of their condition, poorer outcomes following treatment, disability, or death (Esmail, 2009; Barua et al., 2013). Some may leave simply to avoid delay and to make a quicker return to normal life.

While there is no readily available data on the number of Canadians travelling abroad for health care, it is possible to produce an estimate of these numbers from data gathered through the Fraser Institute's Waiting Your Turn survey and from the Canadian Institute

Table 1: Average percentage of patients receiving treatment outside of Canada, 2014

	BC	AB	SK	MB	ON	QC	NB	NS	PE	NL	CAN
Plastic Surgery	0.0%	2.0%	-	-	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%
Gynaecology	4.6%	3.1%	0.5%	0.2%	0.8%	0.5%	0.3%	0.0%	0.0%	1.0%	1.4%
Ophthalmology	0.7%	0.4%	_	_	0.9%	1.2%	0.7%	0.2%	0.0%	0.0%	0.8%
Otolaryngology	0.7%	1.0%	0.0%	3.3%	1.4%	0.2%	0.0%	1.5%	0.0%	-	1.1%
General Surgery	0.4%	1.3%	0.2%	_	0.7%	0.1%	0.0%	0.0%	_	-	0.5%
Neurosurgery	5.4%	0.3%	3.0%	_	3.3%	_	-	0.0%	_	-	2.6%
Orthopaedic	0.5%	2.1%	1.7%	0.0%	1.0%	0.1%	0.8%	1.4%	1.5%	0.5%	0.9%
Surgery											
Cardiovascular Surgery	3.7%	0.3%	-	0.0%	0.8%	1.7%	-	0.0%	-	-	1.3%
Urology	3.7%	0.3%	-	-	1.9%	0.3%	5.0%	3.0%	-	-	1.8%
Internal Medicine	1.2%	0.8%	0.0%	0.5%	3.3%	0.4%	0.3%	0.0%	-	0.0%	1.8%
Radiation Oncology	1.6%	1.8%	5.0%	-	0.5%	1.2%	-	0.0%	-	-	1.2%
Medical Oncology	2.4%	0.5%	-	5.0%	0.5%	0.3%	0.0%	0.0%	0.0%	0.0%	0.9%
All Specialties	1.6%	1.5%	0.9%	1.0%	1.3%	0.5%	0.8%	0.6%	0.4%	0.5%	1.1%

Note: Averages for provinces and specialties with missing data should be interpreted with caution.

Source: Barua and Fathers (2014), table 11.

Table 2: Estimated number of patients receiving treatment outside of Canada, 2014

	BC	AB	SK	MB	ON	QC	NB	NS	PE	NL	CAN
Plastic Surgery	0	137	_	_	35	1	0	0	0	0	173
Gynaecology	951	664	34	12	489	193	15	0	0	50	2,409
Ophthalmology	481	204	-	-	1,483	2,435	54	30	0	0	4,688
Otolaryngology	97	131	0	153	768	70	0	63	0	-	1,283
General Surgery	358	724	59	-	2,031	98	0	0	_	-	3,270
Neurosurgery	406	13	58	-	660	-	-	0	_	-	1,137
Orthopaedic Surgery	214	676	194	0	1,131	84	62	122	21	17	2,520
Cardiovascular Surgery	359	14	-	0	203	357	-	0	_	-	933
Urology	1,802	81	-	_	3,490	197	315	327	_	-	6,212
Internal Medicine	757	301	0	95	5,011	385	9	0	_	0	6,559
Radiation Oncology	13	15	11	_	26	35	-	0	_	-	100
Medical Oncology	62	14	-	37	83	30	0	0	0	0	225
Residual *	4,299	3,013	695	750	10,843	2,398	287	433	27	259	23,006
Total	9,799	5,988	1,050	1,048	26,252	6,284	742	975	48	327	52,513

^{*}The residual count was produced using the average provincial percent of patients receiving treatment outside of Canada and the residual count of procedures produced in Waiting your turn, 2014 report. Source: Barua and Fathers (2014); calculations by authors.

for Health Information (CIHI), which tallies the numbers of procedures performed in Canada.

Estimating the number of patients leaving Canada for health care

Each year, the Fraser Institute conducts a survey of physicians across Canada in 12 major medical specialties: plastic surgery, gynaecology, ophthalmology, general surgery, neurosurgery, orthopaedic surgery, cardiovascular surgery, urology, internal medicine, radiation oncology, and medical oncology.1

Included in the survey is the question: "Approximately what percentage of your patients

received non-emergency medical treatment in the past 12 months outside Canada?" The answers are averaged for each of the specialties studied in Waiting Your Turn for each province, producing a table that reports the average percentage of patients receiving treatment outside Canada (Barua and Fathers, 2014: table 11). These percentages are shown in table 1.

In 2014, 1.1% of patients in Canada were estimated to have received non-emergency medical treatment outside Canada, compared to 0.9% in 2013 (Barua and Esmail, 2013: table 11). Physicians in British Columbia reported the highest proportion of patients (in a province) that received treatment abroad (1.6%), while at the other end of the scale physicians in Prince Edward Island reported that only 0.4% of their

¹ See Barua and Fathers (2014) for information regarding procedures constituting each specialty.

patients travelled abroad for treatment in 2014. Across Canada, neurosurgeons reported the highest proportion of patients (in a speciality) travelling abroad for treatment (2.6%), while the lowest proportion of patients (in a specialty) travelled abroad for plastic surgery (0.3%) (see table 1).

Combining these percentages² (table 1) with the number of procedures³ performed in each province and in each medical specialty gives an estimate of the number of Canadians who actually received treatment outside the country.

Results

Table 2 indicates that a significant number of Canadians—an estimated 52,513 people received treatment outside of the country in 2014. This is a considerable increase from the estimated 41,838 who travelled abroad in 2013 (Esmail and Barua, 2013).

Increases between 2013 and 2014 in the estimated number of patients going outside Canada for treatment were seen in eight provinces: Ontario (from 19,118 to 26,252), British Columbia (8,146 to 9,799), Quebec (4,904 to 6,284), Alberta (5,527 to 5,988), New Brunswick (372 to 742), Saskatchewan (714 to 1,050), Nova Scotia (927 to 975) and Prince Edward Island (8 to 48). Conversely, in that period there was a decrease in the estimated number of patients who received treatment outside Canada in Newfoundland &

Table 2 also shows the estimated number of patients receiving treatment outside of Canada by specialty. For example, we estimate that approximately 6,559 Canadians travelled abroad in 2014 to receive internal medicine treatments. On the other hand, we estimate that only about 100 Canadians went abroad to receive radiation oncology treatment in 2014.

Limitations

Two data-related issues must be noted. First, data for the number of procedures performed in Quebec in 2012/13 was not available to Barua and Fathers (2014). As a result, they made a prorated estimate of surgeries in Quebec using the number of acute surgeries performed in the province in 2011/12.4

Second, there is a temporal mismatch between the timing of the Fraser Institute's Waiting Your Turn survey and the CIHI's annual data release. Specifically, procedure counts data used for Waiting Your Turn are typically one year behind (e.g., the 2012 edition of Waiting Your Turn used procedure counts from 2010/2011). While the calculations above use the temporally mismatched procedure counts to provide up-todate information, previous calculations adjusting for the temporal mismatch show that it does not appear to materially affect the trend witnessed in the overall count of Canadians. However, it does, as expected, affect the actual counts of Canadians (Esmail, 2007).5

Labrador (from 486 to 327) and Manitoba (1,636 to 1,048).

Readers should note that this calculation uses the exact values, not the rounded values that appear in table 11 in Barua and Fathers (2014).

³ Data is for 2012/13 from the Discharge Abstract Database (CIHI, 2013a) and the National Ambulatory Care Reporting System (CIHI, 2013b). For further details see Barua and Fathers (2014).

⁴ This may limit comparisons with estimates from previous years for Quebec, and for Canada as a whole.

⁵ Specifically, the Canadian counts with the temporal mismatch for 2004, 2005, and 2006 were 49,392,

The number of patients receiving treatment outside Canada each year produced by this methodology is likely to be an underestimate. This is the result of a few factors. Most importantly, these numbers are based on specialist responses, which means that patients who leave Canada without consulting a specialist⁶ are not likely to be included in the count shown in table 2. The counts are also based on the number of procedures estimated to have been performed in Canada, which is less than the total number of patients consulted and less than the total number of Canadians who would have required treatment, including those who left Canada to seek it.

Discussion

These numbers are not insubstantial. They point to a sizeable number of Canadians whose needs and health care demands could not be satisfied within Canada's borders.

There are a number of possible reasons why this may have been the case. Some patients may have been sent out of country by the public health care system due to a lack of available resources or the fact that some procedures or equipment are not provided in their home jurisdiction. Others may have chosen to leave Canada in response to concerns about quality (Walker et al., 2009), seeking more advanced health care facilities, more state-of-the-art medical technologies, or better outcomes.

Another explanation may relate to the long waiting times that patients are forced endure in Canada's health care system. For example, in 2014, patients could expect to wait 9.8 weeks for medically necessary treatment after seeing a specialist.⁷ This wait time (which does not include the 8.5 week wait to see a specialist) is more than 3 weeks longer than what physicians consider to be clinically "reasonable" (6.5 weeks).

Thus, it is possible that some patients may have left the country to avoid some of the adverse medical consequences of waiting for care, such as worsening of their condition, poorer outcomes following treatment, disability, or death (Esmail, 2009; Barua et al., 2013). At the same time, others may have left simply to avoid delay and to make a quicker return to normal life.

Conclusion

In 2014, an estimated 52,513 Canadians received non-emergency medical treatment outside Canada. In some cases, these patients needed to leave Canada due to a lack of available resources or a lack of appropriate procedures or technologies. In others, their departure will have been driven by a desire to return more quickly to their lives, to seek out superior quality care, or perhaps to save their own lives or avoid the risk of disability.

Clearly, the number of Canadians who ultimately receive their medical care in other countries is not insignificant. That a considerable number of Canadians travelled abroad and paid to escape the well-known failings of the

^{44,022,} and 39,282, respectively. Accounting for the mismatch, the counts for 2004 and 2005 were 7,011 and 45,776, respectively (see Esmail, 2007).

⁶ In 2014, the national median wait time between referral by a general practitioner and consultation with a specialist was 8.5 weeks (see Barua and Fathers, 2014).

⁷ The Fraser Institute's Waiting Your Turn survey measures wait times for elective treatment in most specialties. For more information see Barua and Fathers, 2014.

Canadian health care system speaks volumes about how well the system is working for them.

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