## Chapter 8

# **Emergency Department Use**

(Reported January 2024)

#### **Key Findings:**

- There was a decrease in the number of emergency department visits from March to April 2020, compared to the same period in 2019. The number of emergency department visits returned to close to pre-pandemic numbers by June 2021.
- Among those who accessed emergency department services, the proportion of visits requiring the most urgent level of care increased in 2020, compared to previous years, while the proportion requiring less urgent care decreased.

### **Situation**

Emergency department (ED) visits in BC changed during the early months of the COVID-19 pandemic. Likely reasons for this are as follows:

- Public messaging highlighting the prioritization of hospital resources, as well as changes to ED policies and procedures, to prevent overburdening the health system;<sup>1,2</sup>
- Public reluctance to attend health-care settings due to concerns about contracting SARS-CoV-2 (the virus that causes COVID-19);
- Hospitals changing ED triaging and admitting processes impacting how, when, and who used EDs; and
- Reduced ED capacity after putting new COVID-19 measures in place (e.g., increased distancing in wait rooms, staff reallocation, staff illness and burnout, isolation requirements resulting from contact with confirmed cases).<sup>3,4,5,6</sup>

### Truth and Reconciliation in the Health-care System

Truth and reconciliation in the health-care system includes acknowledging and addressing historical injustices and dismantling systemic barriers to equitable care for Indigenous Peoples (First Nations, Métis, and Inuit). This requires health-care providers in emergency departments to take actions that ensure Indigenous Peoples feel safe and respected when receiving care.

The health system in BC continues to inflict interpersonal and systemic racism on Indigenous Peoples, often making it unsafe for them to seek health services, including emergency health services. For many Indigenous Peoples and communities, the challenges of public health restrictions during the COVID-19 pandemic added to the cumulative barriers and stresses faced every day as a result of colonialism, intergenerational trauma, manufactured poverty, and pervasive racism and discrimination. Further, those with limited access to hospital emergency departments before the pandemic (e.g., people living in rural, remote, and northern communities) may have experienced even less access during the pandemic. Urgent actions to uphold recommendations found in the *In Plain Sight* report are required to eradicate anti-Indigenous racism and discrimination in emergency departments. Continued engagement with Indigenous partner organizations and distinctions-based analyses are required to ensure Indigenous Peoples' inherent right to culturally safe and quality emergency health services is upheld.

## **Background**

The COVID-19 pandemic and measures to reduce SARS-CoV-2 transmission, including changes to processes in EDs, may have impacted access to EDs, as well as individual attitudes towards visiting EDs and behaviour when using them.

Individuals: Reasons for avoiding EDs in the early part of the pandemic included concerns related to SARS-CoV-2 exposure, unknowingly transmitting SARS-CoV-2 to health-care providers or other patients in health-care settings, and overburdening the health system with mild or non-urgent concerns.<sup>7,8,9,10,11</sup> Similar findings of reduced ED use and increased severity of reason for visiting the ED were reported among pediatric populations. 12,13 In some jurisdictions, this resulted in a substantial overall decline in ED use but increased hospital admission rates, suggesting that patients presenting to EDs had more severe symptoms and diagnoses. 10,14 In BC, preliminary research shows that the proportion of those who died at home between February and April 2020 increased from 18% to 26%, which may be associated with delaying or not seeking care. 15 Virtual care visits increased considerably for family physicians during this time. 60,61

Emergency Departments: EDs across BC revised infection prevention and control protocols to reduce the risk of SARS-CoV-2 transmission. These newly adopted protocols changed the way patients experienced EDs (e.g., physical flow, wait times) and may have influenced how and when patients sought care. Some examples include the following:

- Physical spaces: setting up triaging stations outdoors, increasing space between waiting patients, creating COVID-19-specific units;<sup>16,36</sup>
- Personal protective equipment (PPE) use and other infection prevention and control materials: health authorities experiencing issues related to accessing sufficient PPE in the initial months of the pandemic,<sup>17</sup> and—due to varying supplies of masks, hand sanitizer, and other PPE<sup>18</sup>—continually updating protocols around which PPE to use and when;
- COVID-19 assessments before and during hospital triage: implementing virtual triage and assessment processes to manage and reduce

less urgent ED visits and to prevent possible SARS-CoV-2 exposures and transmission;<sup>19</sup> encouraging patients during the initial phases of the pandemic to complete the COVID-19 self-assessment prior to presenting at an ED, followed by additional COVID-19 screening questions (e.g., exposures, travel) at the hospital;<sup>20</sup> and

 Caregiver/visitor regulations: restricting the number of people accompanying a patient (e.g., only one accompanying individual).<sup>21,22</sup>

## **Findings**

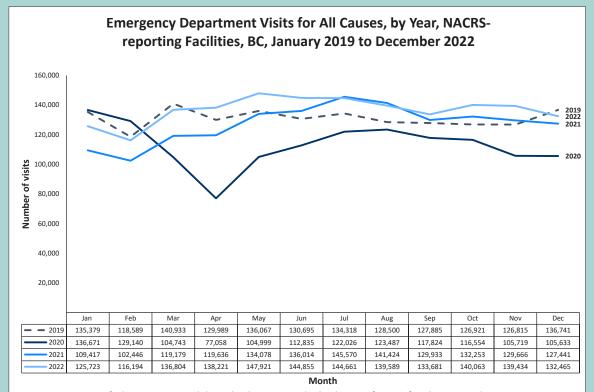
Data from the first round of the BC COVID-19 Survey on Population Experiences, Action, and Knowledge (SPEAK) conducted May 12-31, 2020, show that, among the 33.3% of BC residents who reported avoiding health-care services since the pandemic began, 6.4% reported avoiding emergency or urgent care departments.<sup>7</sup> Regional variation was seen among those who reported avoiding EDs. Among those who said they had avoided health care since the pandemic began, the following percentages avoided emergency or urgent care: 5.1% in Vancouver Coastal Health, 6.1% in Island Health, 6.7% in Fraser Health, 7.2% in Interior Health, and 9.0% in Northern Health. The age groups with the highest proportions reporting avoidance of EDs were 18–29 (8.0%), 30–39 (7.9%), and 40–49 (7.2%).<sup>7</sup>

BC COVID-19 SPEAK data also found that among the 22.6% of BC residents who reported difficulty in accessing health-care services, 4.0% reported having difficulty accessing EDs during the first months of the pandemic, with similar findings across the five health authority regions (ranging from 3.1% in the Vancouver Coastal region to 5.2% in the Northern Health region).<sup>7</sup>

Figures 8.1A–8.1C, 8.2, 8.3, and 8.4A–8.4C in this report are based on data from facilities that report to the National Ambulatory Care Reporting Service (NACRS). NACRS-reporting facilities are based mostly in the Vancouver Coastal and Fraser Health Authorities, reflecting largely urban areas, and are not reflective of the whole of BC. Please refer to Appendix 8-A for a list of NACRS-reporting facilities.

## **Trends in Emergency Department Use in BC**

FIGURE 8.1A



**Notes:** NACRS-reporting facilities in BC are mostly located in the Lower Mainland and account for 75% of total emergency department visits in BC. **Source:** National Ambulatory Care Reporting System (NACRS). Prepared by BC Centre for Disease Control (data and analysis) and Population Health Surveillance and Epidemiology, Office of the Provincial Health Officer, BC Ministry of Health (visualizations), November 2023.

Figure 8.1A shows the number of ED visits for all causes, by month and year, from January 2019 to December 2022. There was a clear decrease in ED visits in March and April 2020 when compared to the previous year. In April 2020, 77,058 ED visits were recorded, compared to 129,989 ED visits in April 2019. This was followed by a sharp increase in May 2020, and a gradual increase followed by a gradual decrease, before a stabilizing of ED visits at the end of the year. The number of ED visits did not return to pre-pandemic levels until June 2021. <sup>63</sup>

It is important to note that ED use may have decreased in part because of the reduced occurrence of medical events requiring emergency services during the COVID-19 pandemic. The literature suggests that:

- The incidence of many respiratory diseases (e.g., influenza) was significantly lower in 2020 compared to previous years;<sup>24,25,26,27</sup> and
- There was either no change in, or decreased incidence of, physical traumas (e.g., sports-related injuries,<sup>28</sup> blunt assault, motor vehicle crashes).<sup>29,63</sup>

The occurrence of some medical events (e.g., myocardial infarction) is likely to have stayed the same despite reduced presentation in EDs.<sup>30</sup> Other conditions, such as toxic drug poisoning/overdose, increased during the COVID-19 pandemic due to the worsening unregulated drug emergency. These findings suggest that the data may reflect a change in the use of EDs rather than a change in the need for visits to EDs overall.<sup>11,30,31,32</sup>

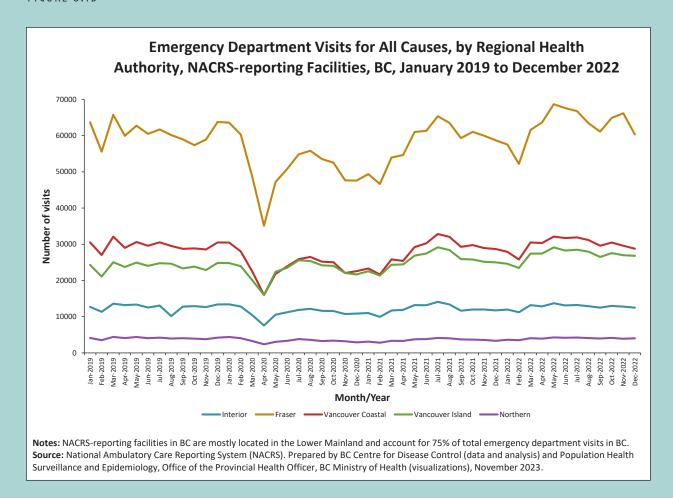


Figure 8.1B shows the number of ED visits for all causes from January 2019 to December 2022, by regional health authority, among facilities that report to NACRS. As noted earlier, the majority of these facilities are based in the Vancouver Coastal and Fraser Health authority regions (see Appendix 8-A). Because of this, and because Fraser Health has a substantially higher population than the other health regions, 62 this health region has higher counts. This chart shows that the substantial decrease in ED visits in 2020 demonstrated in Figure 8.1A was experienced across all health regions.

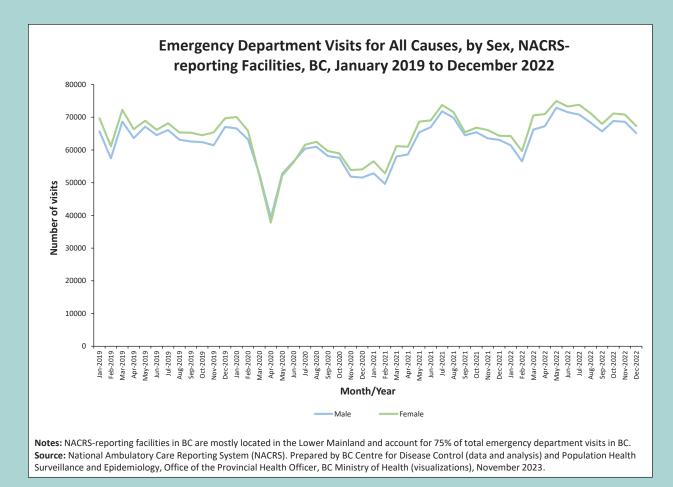


Figure 8.1C shows the number of ED visits for all causes from January 2019 to December 2022, by sex. This chart shows a clear and significant decline in the number of ED visits by both sexes from February to April 2020. There does not appear to be a difference between female and male<sup>a</sup> patients—both show the same decline and rebound in number of ED visits. Please refer to Appendix 8-B for a detailed data table related to this chart.

129

<sup>&</sup>lt;sup>a</sup> In this report, data presented by sex (female/male) may reflect biological sex assigned at birth. Therefore, Two-Spirit, transgender, non-binary, intersex, and gender diverse people may be misidentified in the data.

# Trends in Acuity of Emergency Department Cases Across BC and Canada

The previous section focused on the change in number of ED visits early in the pandemic. Looking at the change in acuity of ED visits provides more nuanced information about how people changed their use of EDs in response to COVID-19 and related measures. Data in this section come from Canadian Triage Acuity Scale (CTAS) scores. <sup>33</sup> The CTAS is used to triage patients presenting at EDs based on urgency. Lower CTAS scores represent more urgent needs.

#### In Canada:

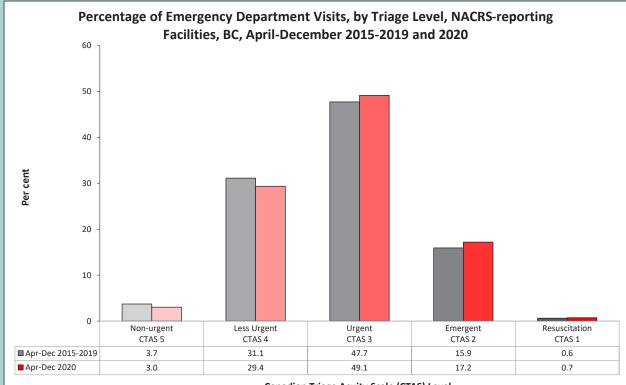
Compared to March 2019, March 2020 saw a 25% drop in the number of ED visits across Canada.<sup>23</sup> This reduction in visits was not distributed evenly across all levels of acuity. Less urgent (CTAS 4) visits decreased the most (by 29%), but there was also a 14% decrease in the most urgent cases (CTAS 1). Additionally, there were sizeable decreases at levels CTAS 2 (emergent—25%), CTAS 3 (urgent—23%), and CTAS 5 (non-urgent—18%).<sup>34</sup>

#### **Canadian Triage Acuity Scale Levels**

- CTAS 1: Resuscitation (conditions that are threats to life or limb).
- CTAS 2: Emergent (conditions that are a potential threat to life, limb, or function).
- CTAS 3: Urgent (serious conditions that require emergency intervention).
- CTAS 4: Less urgent (conditions that relate to patient distress or potential complications that would benefit from intervention).
- CTAS 5: Non-urgent (conditions that are non-urgent or that may be part of a chronic problem).

#### In BC:

#### FIGURE 8.2



Canadian Triage Acuity Scale (CTAS) Level

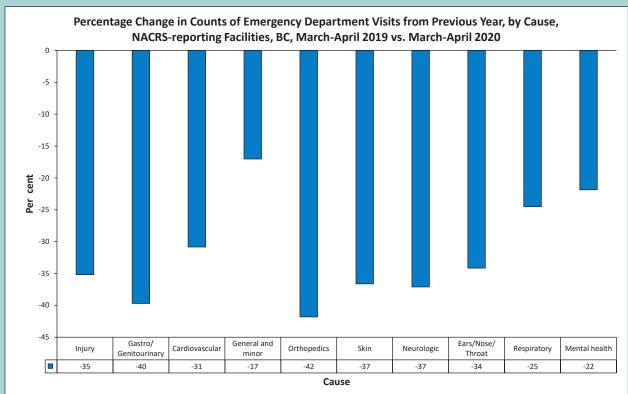
Notes: NACRS-reporting facilities in BC are mostly located in the Lower Mainland and account for 75% of total emergency department visits in BC. Canadian Triage Acuity Scale (CTAS) levels are: 1 (resuscitation), 2 (emergent), 3 (urgent), 4 (less urgent) and 5 (non-urgent). Records with missing or unknown CTAS are not included.

Source: National Ambulatory Care Reporting System (NACRS). Prepared by Population Health Surveillance and Epidemiology, Office of the Provincial Health Officer, BC Ministry of Health, January 2022.

Figure 8.2 shows the percentage of ED visits by CTAS level across BC, comparing CTAS scores during pandemic months of 2020 (i.e., April 1–December 31) with average scores during the same months in pre-pandemic years spanning 2015–2019. The proportion of visits with more urgent CTAS scores was higher in 2020 than in previous years. Additional analyses of these data indicate that these trends are similar by sex and across age groups.<sup>35</sup> All differences reported are statistically significant when comparing 2020 to previous years' averages. These findings are consistent with national reporting, which showed that many people avoided the ED for less severe conditions.<sup>23</sup>

# **Trends in Reasons for Seeking Care in Emergency Departments Across BC**

FIGURE 8.3



**Notes:** NACRS-reporting facilities in BC are mostly located in the Lower Mainland and account for 75% of total emergency department visits in BC. Overall reasons for emergency department visits using the patients' presenting complaints, coded with the Canadian Emergency Department Information System (CEDIS) Presenting Complaint List, version 5.1.

**Source:** National Ambulatory Care Reporting System (NACRS). Prepared by BC Centre for Disease Control (data and analysis) and Population Health Surveillance and Epidemiology, Office of the Provincial Health Officer, BC Ministry of Health (visualizations), November 2023.

Figure 8.3 shows the percentage change in number of ED visits from March–April 2019 to March–April 2020, by cause, in BC. The negative values indicate the percentage decrease from 2019 to 2020. Across BC, the values range from a 17% decrease in the number of ED visits for general and minor conditions to a 42% decrease for orthopedic conditions.

## **Emergency Department Experiences Across BC**

FIGURE 8.4A

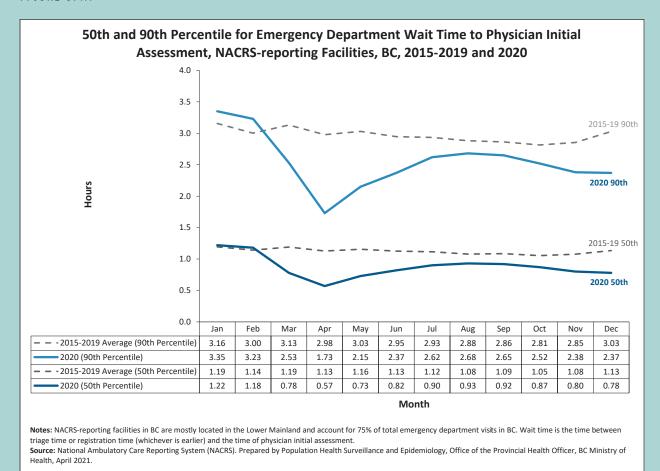


Figure 8.4A shows the 50th percentile (median) and 90th percentile wait times in hours for an initial assessment by an ED physician,<sup>b,37</sup> comparing 2020 to the average for 2015–2019. Wait times from March to June 2020 were lower than in previous years, with the shortest wait times in April. There are no differences when comparing wait times by sex or age. A comparison of wait times by CTAS score had not yet been done at the time this report was written, but it may offer further insights into the impact of the urgency of ED visits on wait times for physician initial assessments.

<sup>&</sup>lt;sup>b</sup> This indicator measures the time between the earlier of either triage date/time or registration date/time, and the date/time of the physician initial assessment in the ED. The 90th percentile of this indicator is interpreted as the longest wait time in hours among 90% of patients waiting for the physician initial assessment in an ED, as only 10% of ED patients waited longer than this benchmark to be seen. Similarly, the 50th percentile represents the longest wait time in hours among half of those waiting for the physician initial assessment in an ED. Smaller numbers represent shorter wait times.

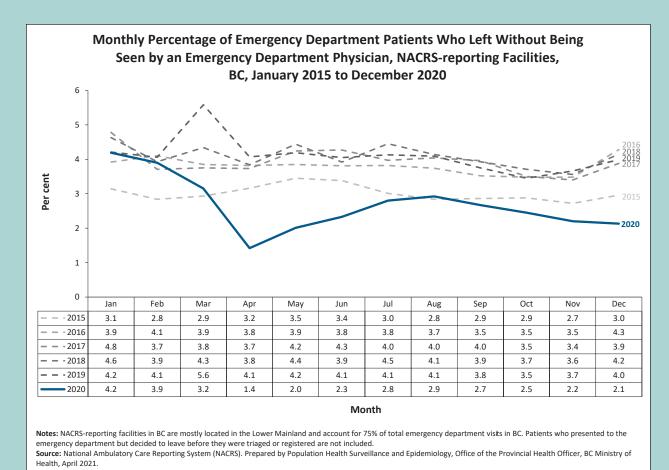


Figure 8.4B shows the monthly percentage of ED patients who left without being seen by a physician. The trend appears correlated with ED wait times, and is consistent with decreased ED use. In addition, the data may reflect a greater proportion of patients with higher-acuity health problems visiting EDs in 2020 compared to previous years. There are no significant trends seen when comparing sexes.

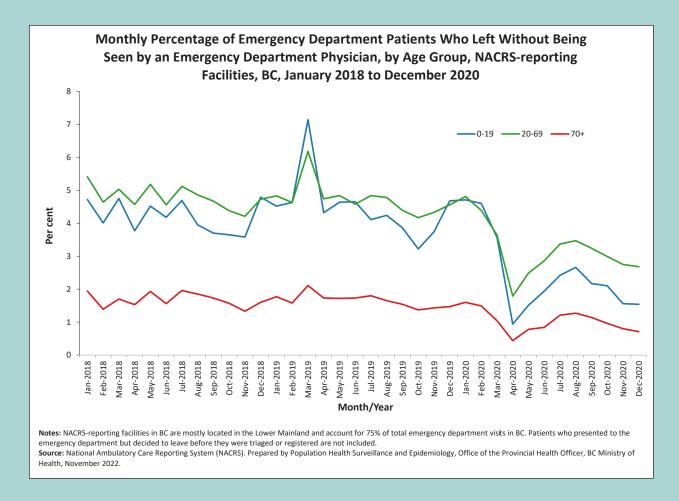


Figure 8.4C shows the monthly percentage of patients who left without being seen by a physician from January 2018 to December 2020, comparing three age groups: 0–19, 20–69, and 70 and older. There was a substantial decline in 2020 for all age groups from January/February to April, with percentages steadily increasing from May to August, followed by another decline from September to December. This decline might suggest that, with fewer people using the ED (see Figures 8.1A–8.1C) and wait times steadily decreasing during the early months of the pandemic, patients below age 70 chose to wait to see a physician, whereas previously they might have chosen to leave without being seen. The decline might also speak to the severity of the issue necessitating an ED visit and the need for urgent care (see Figure 8.2) in which triaging would result in decreased wait times. Figure 8.4C also shows a clear peak in the monthly percentage of patients who left without being seen by a physician in March 2019. The reason for this peak has not been determined and is outside the scope of this report, but similar—though lower in magnitude—peaks were observed in the colder months of preceding years, from 2016 to 2018.° Please refer to Appendix 8-B for a detailed data table related to this chart.

<sup>&</sup>lt;sup>c</sup> These peaks were observed by Population Health Surveillance and Epidemiology, Office of the Provincial Health Officer, in the same data set charted in Fig. 8.4C. As determining the cause of the peaks is outside the scope of the current report, this was not investigated further. The cause of the peaks is not known.

## **Equity Considerations**

Several populations already experienced inequitable access to EDs prior to the pandemic, which may have worsened during the early months of the COVID-19 pandemic.<sup>38</sup> For example:

- Those with limited access to EDs before the pandemic (e.g., people living in rural, remote, and northern communities) may have experienced even less access.
- Populations with lower socioeconomic status were disproportionately affected by the pandemic. These populations were more likely to work in frontline positions, and less likely to have paid sick leave or the time to seek health-care services.<sup>38,39,40,41</sup>
- Women who bore unequal burdens of caregiving responsibilities may have experienced increased barriers to ED access. For example, if they were not permitted or did not wish to bring their children with them when they needed to access the ED, they may have delayed or chosen not to go.<sup>42,43,44</sup>
- Indigenous Peoples (First Nations, Métis, and Inuit) consistently experience interpersonal and systemic racism in the BC health system, which contributes to reluctance to access health services. 45,46,47,48,49
- Those who identify as non-binary already faced distinct challenges in accessing safe care due to discrimination experienced in health-care settings.<sup>50,51</sup>
- Refugee, immigrant, and racialized communities continually faced unique challenges in accessing health services both prior to and during the pandemic.<sup>52,53,54</sup> Examples of these challenges include administrative challenges with enrolling in the Medical Services Plan/ Health Insurance BC,<sup>55</sup> language and cultural barriers,<sup>56</sup> experiences of poverty,<sup>57</sup> lack of access to technology as health services transitioned to virtual care,<sup>58</sup> health systems that are difficult to navigate,<sup>56</sup> and avoidance of the health system due to fears of medical professionals.<sup>56</sup>

### Considerations for Further Action

This section provides considerations for action based on the findings of this report. These are not formal recommendations, but rather ideas to consider when shaping recommendations and actions related to this topic. The scope of this report does not permit a complete cataloguing of all actions currently underway in BC on this report topic. The considerations below may lend support to actions already underway that address the issues identified and provide a starting place for discussion if action has not yet begun.

- Commit to offering culturally safe health care informed by anti-racist policies, including in EDs, and acting on the 24 recommendations outlined in the *In Plain Sight* report, an independent review of Indigenous-specific racism in the BC health-care system. 45,59
- Continue long-term monitoring to evaluate and address the short- and long-term impacts of the pandemic and related response measures on access to primary care, care avoidance, and ways to ensure that emergency services continue to be available during pandemic situations.
- 3. Explore initiatives started during the COVID-19 pandemic (such as virtual triage and assessment processes)<sup>19</sup> and alternative urgent care structures (such as urgent and primary care centres) to determine the impact on demand for ED services, and to understand the regional and rural/urban differences in ED visits and wait times.

## **Appendix 8-A: Data Methodology Notes**

- The BC Observatory for Population and Public Health completed data acquisition, analysis, and interpretation for Figures 8.1A, 8.1B, 8.1C, and 8.3. Analysis and interpretation for Figures 8.2, 8.4A, 8.4B, and 8.4C, as well as chart visualizations for all figures, were completed by Population Health Surveillance and Epidemiology, Office of the Provincial Health Officer, BC Ministry of Health. For questions, contact <u>HLTH.PHSE@gov.bc.ca</u>.
- 2. **BC COVID-19 SPEAK Data:** The BC COVID-19 SPEAK was funded by the BCCDC Foundation for Public Health. The SPEAK data are publicly accessible here: <a href="http://www.bccdc.ca/health-professionals/data-reports/bc-covid-19-speak-dashboard">http://www.bccdc.ca/health-professionals/data-reports/bc-covid-19-speak-dashboard</a>.

CHAPTER 8: EMERGENCY DEPARTMENT USE

137

3. National Ambulatory Care Reporting System (NACRS) Charts: Figures 8.1A–8.1C, 8.2, 8.3, and 8.4A–8.4C report on emergency department visits from NACRS. NACRS provides information on all levels of ambulatory care within Canada. There are 30 sites in BC that report to NACRS as of fiscal year 2020, most of which are in the Lower Mainland. This data limitation results in an underrepresentation of events that take place in the Interior and Northern Health Authorities in NACRS data.

The following table lists the hospitals with emergency departments that reported to NACRS during 2015–2020. There are three facilities that did not report to NACRS for the entire time period, as noted in the table.

#### **NACRS** Reporting Facilities

Health Authority	Hospital Name
Interior	Kelowna General Hospital
Interior	Royal Inland Hospital
Fraser	Royal Columbian Hospital
Fraser	Langley Memorial Hospital
Fraser	Surrey Memorial Hospital
Fraser	Burnaby Hospital
Fraser	Peace Arch District Hospital
Fraser	Delta Hospital
Fraser	Eagle Ridge Hospital and Health Care Centre
Fraser	Chilliwack General Hospital
Fraser	Mission Memorial Hospital
Fraser	Ridge Meadows Hospital and Health Care Centre
Fraser	Fraser Canyon Hospital
Fraser	Abbotsford Regional Hospital and Cancer Centre
Vancouver Coastal	Vancouver General Hospital
Vancouver Coastal	St. Paul's Hospital
Vancouver Coastal	Mount Saint Joseph Hospital
Vancouver Coastal	Lions Gate Hospital
Vancouver Coastal	Richmond Hospital
Vancouver Coastal	UBC Health Sciences Centre
Vancouver Coastal	BC Children's Hospital
Vancouver Island	Royal Jubilee Hospital
Vancouver Island	Victoria General Hospital
Vancouver Island	Cowichan District Hospital
Vancouver Island	Saanich Peninsula Hospital
Vancouver Island	Nanaimo Regional General Hospital
Vancouver Island	St. Joseph's General Hospital (closed in October 2017)
Vancouver Island	North Island Hospital, Comox Valley (opened in October 2017)
Vancouver Island	North Island Hospital, Campbell River and District
Vancouver Island	West Coast General Hospital (started reporting in March 2020)
Northern	The University Hospital of Northern British Columbia

## **Appendix 8-B: Data tables**

**Figure 8.1B-Data**: Emergency Department Visits for All Causes, by Regional Health Authority, BC, January 2019 to December 2022

	Regional Health Authority				
Month/Year	Interior	Fraser	Vancouver Coastal	Vancouver Island	Northern
Jan-2019	12,715	63,698	30,527	24,308	4,131
Feb-2019	11,346	55,583	27,035	21,096	3,529
Mar-2019	13,584	65,776	32,121	25,028	4,424
Apr-2019	13,203	59,936	29,010	23,747	4,093
May-2019	13,350	62,744	30,632	24,940	4,401
Jun-2019	12,530	60,486	29,599	24,030	4,050
Jul-2019	13,082	61,722	30,534	24,758	4,222
Aug-2019	10,154	60,171	29,543	24,658	3,974
Sep-2019	12,789	58,963	28,729	23,347	4,057
Oct-2019	12,927	57,356	28,862	23,826	3,950
Nov-2019	12,656	58,912	28,559	22,885	3,803
Dec-2019	13,398	63,764	30,515	24,849	4,215
Jan-2020	13,418	63,587	30,466	24,787	4,413
Feb-2020	12,821	60,298	28,003	23,955	4,063
Mar-2020	10,394	48,567	22,453	20,060	3,269
Apr-2020	7,572	35,126	15,988	15,995	2,377
May-2020	10,549	47,186	21,808	22,400	3,056
Jun-2020	11,222	50,825	23,927	23,523	3,338
Jul-2020	11,878	54,852	25,886	25,588	3,822
Aug-2020	12,182	55,825	26,489	25,384	3,607
Sep-2020	11,632	53,536	25,192	24,183	3,281
Oct-2020	11,560	52,531	25,031	24,029	3,403
Nov-2020	10,735	47,642	22,074	22,060	3,208
Dec-2020	10,870	47,597	22,591	21,677	2,898
Jan-2021	11,021	49,388	23,321	22,549	3,138
Feb-2021	9,960	46,639	21,658	21,362	2,827
Mar-2021	11,720	53,960	25,819	24,340	3,340
Apr-2021	11,884	54,625	25,391	24,421	3,315

CHAPTER 8: EMERGENCY DEPARTMENT USE

139

**Figure 8.1B-Data**: Emergency Department Visits for All Causes, by Regional Health Authority, BC, January 2019 to December 2022 *continued* 

	Regional Health Authority				
Month/Year	Interior	Fraser	Vancouver Coastal	Vancouver Island	Northern
May-2021	13,204	61,004	29,231	26,863	3,776
Jun-2021	13,167	61,329	30,260	27,429	3,829
Jul-2021	14,094	65,363	32,831	29,170	4,112
Aug-2021	13,398	63,533	32,063	28,405	4,025
Sep-2021	11,639	59,324	29,303	25,923	3,744
Oct-2021	11,975	61,041	29,767	25,787	3,683
Nov-2021	11,995	59,976	28,953	25,148	3,594
Dec-2021	11,740	58,709	28,670	24,999	3,323
Jan-2022	11,973	57,565	27,925	24,614	3,646
Feb-2022	11,229	52,195	25,786	23,470	3,514
Mar-2022	13,193	61,592	30,499	27,452	4,068
Apr-2022	12,850	63,638	30,349	27,445	3,939
May-2022	13,728	68,685	32,103	29,126	4,279
Jun-2022	13,098	67,602	31,706	28,255	4,194
Jul-2022	13,240	66,781	31,908	28,491	4,241
Aug-2022	12,896	63,453	31,174	27,969	4,097
Sep-2022	12,507	61,109	29,596	26,487	3,982
Oct-2022	12,985	64,887	30,474	27,552	4,165
Nov-2022	12,788	66,162	29,595	26,981	3,908
Dec-2022	12,516	60,323	28,766	26,813	4,047

Figure 8.1C-Data: Emergency Department Visits for All Causes, by Sex, BC, January 2019 to December 2022

Month-Year	Male	Female	Month-Year	Male	Female
Jan-2019	65,683	69,675	Jan-2021	52,882	56,525
Feb-2019	57,434	61,139	Feb-2021	49,606	52,826
Mar-2019	68,656	72,258	Mar-2021	57,979	61,188
Apr-2019	63,618	66,347	Apr-2021	58,660	60,961
May-2019	67,124	68,931	May-2021	65,417	68,650
Jun-2019	64,520	66,153	Jun-2021	66,953	69,046
Jul-2019	66,124	68,162	Jul-2021	71,805	73,738
Aug-2019	63,131	65,353	Aug-2021	69,841	71,564
Sep-2019	62,577	65,280	Sep-2021	64,481	65,421
Oct-2019	62,390	64,508	Oct-2021	65,404	66,806
Nov-2019	61,431	65,376	Nov-2021	63,557	66,090
Dec-2019	67,044	69,687	Dec-2021	63,093	64,325
Jan-2020	66,595	70,068	Jan-2022	61,437	64,269
Feb-2020	63,236	65,889	Feb-2022	56,505	59,664
Mar-2020	52,592	52,143	Mar-2022	66,213	70,572
Apr-2020	39,246	37,805	Apr-2022	67,241	70,964
May-2020	52,779	52,215	May-2022	72,912	74,974
Jun-2020	56,553	56,274	Jun-2022	71,556	73,260
Jul-2020	60,414	61,599	Jul-2022	70,821	73,816
Aug-2020	60,982	62,497	Aug-2022	68,360	71,202
Sep-2020	58,142	59,672	Sep-2022	65,683	67,969
Oct-2020	57,601	58,942	Oct-2022	68,862	71,164
Nov-2020	51,827	53,883	Nov-2022	68,600	70,813
Dec-2020	51,577	54,044	Dec-2022	65,123	67,323

**Figure 8.4C-Data**: Monthly Percentage of Emergency Department Patients Who Left Without Being Seen by an Emergency Department Physician, by Age Group, NACRS-reporting Facilities, BC, January 2018 to December 2020

		Age Group	
Month/Year	0–19	20–69	70+
Jan-2018	4.7	5.4	1.9
Feb-2018	4.0	4.6	1.4
Mar-2018	4.8	5.0	1.7
Apr-2018	3.8	4.6	1.5
May-2018	4.5	5.2	1.9
Jun-2018	4.2	4.6	1.6
Jul-2018	4.7	5.1	2.0
Aug-2018	4.0	4.9	1.9
Sep-2018	3.7	4.7	1.7
Oct-2018	3.7	4.4	1.6
Nov-2018	3.6	4.2	1.3
Dec-2018	4.8	4.7	1.6
Jan-2019	4.5	4.8	1.8
Feb-2019	4.6	4.6	1.6
Mar-2019	7.1	6.2	2.1
Apr-2019	4.3	4.7	1.7
May-2019	4.6	4.8	1.7
Jun-2019	4.7	4.6	1.7
Jul-2019	4.1	4.8	1.8
Aug-2019	4.2	4.8	1.7
Sep-2019	3.9	4.4	1.5
Oct-2019	3.2	4.2	1.4
Nov-2019	3.7	4.3	1.4
Dec-2019	4.7	4.6	1.5
Jan-2020	4.7	4.8	1.6
Feb-2020	4.6	4.4	1.5
Mar-2020	3.6	3.6	1.0
Apr-2020	0.9	1.8	0.4
May-2020	1.5	2.5	0.8
Jun-2020	1.9	2.9	0.8
Jul-2020	2.4	3.4	1.2
Aug-2020	2.7	3.5	1.3
Sep-2020	2.2	3.2	1.1
Oct-2020	2.1	3.0	1.0
Nov-2020	1.6	2.8	0.8
Dec-2020	1.5	2.7	0.7

#### References

- 1 Government of British Columbia. COVID-19 BC update, April 15 [video file]. 2020 Apr 15 [cited 2021 Oct 29]. Available from: <a href="https://www.youtube.com/watch?v=5UHmlidODMs">https://www.youtube.com/watch?v=5UHmlidODMs</a>.
- 2 Government of British Columbia. Joint statement on B.C.'s COVID-19 response and latest updates [news release]. Victoria, BC: Government of British Columbia; 2020 Mar 16 [cited 2021 Oct 29]. Available from: <a href="https://news.gov.bc.ca/releases/2020HLTH0086-000499">https://news.gov.bc.ca/releases/2020HLTH0086-000499</a>.
- 3 CBC News. Some communities across B.C. lose health-care services as Omicron cuts into staffing. CBC [Internet]. 2022 Jan 20 [cited 2022 Mar 30]. Available from: <a href="https://www.cbc.ca/news/canada/british-columbia/bc-small-town-health-care-concerns-1.6322480">https://www.cbc.ca/news/canada/british-columbia/bc-small-town-health-care-concerns-1.6322480</a>.
- 4 Coyne T. B.C. health-care workers missed nearly 28,000 shifts last week due to illness. CBC [Internet]. 2022 Jan 12 [cited 2022 Mar 30]. Available from: <a href="https://vancouverisland.ctvnews.ca/b-c-health-care-workers-missed-nearly-28-000-shifts-last-week-due-to-illness-1.5736146">https://vancouverisland.ctvnews.ca/b-c-health-care-workers-missed-nearly-28-000-shifts-last-week-due-to-illness-1.5736146</a>.
- 5 CBC News. COVID-19 patients in B.C.'s north being flown elsewhere for care as local hospitals hit limits. CBC [Internet]. 2021 Sep 21 [cited 2022 Mar 30]. Available from: <a href="https://www.cbc.ca/news/canada/british-columbia/covid-19-update-sept-21-1.6184078">https://www.cbc.ca/news/canada/british-columbia/covid-19-update-sept-21-1.6184078</a>.
- 6 Maunder RG, Heeney ND, Strudwick G, Shin HD, O'Neill B, Young N, et al. Burnout in hospital-based healthcare workers during COVID-19. Science Briefs of the Ontario COVID-19 Science Advisory Table. 2021;2(46). doi: <a href="https://doi.org/10.47326/ocsat.2021.02.46.1.0">https://doi.org/10.47326/ocsat.2021.02.46.1.0</a>.
- 7 BC Centre for Disease Control. BC COVID-19 SPEAK Results [Internet]. Vancouver, BC: BC Centre for Disease Control; 2020 Dec 3 [cited 2021 Aug 4]. Available from: https://public.tableau.com/app/profile/bccdc/viz/BCCOVID-19SPEAKSurvey/BCCOVID-19SPEAKresults.
- 8 Canadian Press. Doctors worry people are dying as they avoid ERs due to coronavirus fears. The Globe and Mail [Internet]. 2020 Apr 18 [cited 2020 Aug 25]. Available from: https://www.theglobeandmail.com/canada/article-doctors-worry-people-are-dying-as-they-avoid-ers-due-to-coronavirus/.
- 9 Wong LE, Hawkins JE, Langness S, Murrell KL, Iris P, Sammann A. Where are all the patients? Addressing Covid-19 fear to encourage sick patients to seek emergency care. NEJM Catalyst Innovations in Care Delivery. Waltham, MA: NEJM Group; 2020 [cited 2021 Aug 4]. Available from: <a href="https://catalyst.nejm.org/doi/pdf/10.1056/CAT.20.0193">https://catalyst.nejm.org/doi/pdf/10.1056/CAT.20.0193</a>.
- 10 Jeffery MM, D'Onofrio G, Paek H, Platts-Mills TF, Soares WE, Hoppe JA, et al. Trends in emergency department visits and hospital admissions in health care systems in 5 states in the first months of the COVID-19 pandemic in the US. JAMA Intern Med. 2020;180(10):1328–33. doi: <a href="https://doi.org/10.1001/jamainternmed.2020.3288">https://doi.org/10.1001/jamainternmed.2020.3288</a>.
- 11 Grunau B, Helmer J, Lee S, Acker J, Deakin J, Armour R, et al. Decrease in emergency medical services utilization during early stages of the COVID-19 pandemic in British Columbia. CJEM. 2021;23(2):237–41. doi: <a href="https://doi.org/10.1007/s43678-020-00062-y">https://doi.org/10.1007/s43678-020-00062-y</a>.

- 12 Finkelstein Y, Maguire B, Zemek R, Osmanlliu E, Kam AJ, Dixon A, et al. Effect of the COVID-19 pandemic on patient volumes, acuity, and outcomes in pediatric emergency departments: a nationwide study. Pediatr Emerg Care. 2021;37(8):427–34. doi: https://doi.org/10.1097%2FPEC.0000000000002484.
- **13** Goldman RD, Grafstein E, Barclay N, Irvine MA, Portales-Casamar E. Paediatric patients seen in 18 emergency departments during the COVID-19 pandemic. Emerg Med J. 2020;37(12):773–7. doi: <a href="https://doi.org/10.1136/emermed-2020-210273">https://doi.org/10.1136/emermed-2020-210273</a>.
- 14 Schlenker A, Tadrous C, Ching G, Iovieno A, Nathoo N, Liu T, et al. Retrospective analysis of ophthalmology referrals during the COVID-19 pandemic compared to prepandemic. Can J Ophthalmol. 2021;56(4):217–22. doi: https://doi.org/10.1016/j.jcjo.2021.02.034.
- **15** Henderson S. Personal communication. BC Centre for Disease Control; 2022 Jun 24.
- 16 Scott S. B.C.'s health-care system is ramping up its COVID-19 response. Here's what's changing. CTV News [Internet]. 2020 Mar 17 [cited 2020 Sep 7]. Available from: https://bc.ctvnews.ca/b-c-s-health-care-system-is-ramping-up-its-covid-19-response-here-s-what-s-changing-1.4856426.
- 17 Provincial COVID-19 Task Force. COVID-19: emergency prioritization in a pandemic personal protective equipment (PPE) allocation framework. Victoria, BC: BC Ministry of Health, BC Centre for Disease Control; 2020 Mar 25 [cited 2021 Sep 29]. Available from: <a href="http://www.bccdc.ca/Health-Professionals-Site/Documents/COVID19">http://www.bccdc.ca/Health-Professionals-Site/Documents/COVID19</a> ppe allocation framework.pdf.
- 18 BC Ministry of Health, BC Centre for Disease Control. COVID-19: personal protective equipment recommendations for endotracheal intubation of suspected or confirmed COVID-19 patients in critical care and emergency departments. Victoria, BC: BC Ministry of Health; 2020 [cited 2021 Sep 3]. Available from: <a href="http://www.bccdc.ca/Health-Professionals-Site/Documents/PPE Recommendations Endotracheal IntubationSuspect Confirmed COVID.pdf">http://www.bccdc.ca/Health-Professionals-Site/Documents/PPE Recommendations Endotracheal IntubationSuspect Confirmed COVID.pdf</a>.
- 19 Government of Canada. COVID-19 pandemic guidance for the health care sector [Internet]. Ottawa, ON: Government of Canada [updated 2020 Apr 22; cited 2020 Sep 6].

  Available from: https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/health-professionals/covid-19-pandemic-guidance-health-care-sector.
- **20** ECHO, ARCHE, TREKK. What to expect at the emergency department (ED) [Internet]. Edmonton, AB: ECHO Research and ARCHE; 2020 [cited 2020 Sep 7]. Available from: <a href="http://echokt.ca/covidemergency/">http://echokt.ca/covidemergency/</a>.
- 21 Vancouver Coastal Health. Visitor restrictions at all VCH sites [Internet]. Vancouver, BC: Vancouver Coastal Health; [cited 2023 Nov 28]. Available from: https://www.vch.ca/en/press-release/visitor-restrictions-all-vch-sites.
- 22 Sinai Health. Emergency department during COVID-19 [Internet]. Toronto, ON: Sinai Health; [cited 2023 Nov 28]. Available from: https://www.sinaihealth.ca/covid19/emergency-department-during-covid-19.

CHAPTER 8: EMERGENCY DEPARTMENT USE 143

- 23 Canadian Institute for Health Information. Canadian emergency department visits drop 25% in early weeks of COVID-19 pandemic [Internet]. Ottawa, ON: Cision; 2020 Aug 24 [cited 2020 Aug 26]. Available from: <a href="https://www.newswire.ca/news-releases/canadian-emergency-department-visits-drop-25-in-early-weeks-of-covid-19-pandemic-859585020">httml</a>.
- 24 Galvin CJ, Li YC, Malwade S, Syed-Abdul S. COVID-19 preventive measures showing an unintended decline in infectious diseases in Taiwan. Int J Infect Dis. 2020;98:18–20. doi: https://doi.org/10.1016/j.ijid.2020.06.062.
- 25 Huh K, Kim YE, Ji W, Kim DW, Lee EJ, Kim JH, et al. Decrease in hospital admissions for respiratory diseases during the COVID-19 pandemic: a nationwide claims study. Thorax. 2021;76(9):939–41. doi: https://doi.org/10.1136/thoraxjnl-2020-216526.
- 26 Isen SJ, Azziz-Baumgartner E, Budd AP, Brammer L, Sullivan S, Pineda RF, et al. Decreased influenza activity during the COVID-19 pandemic United States, Australia, Chile, and South Africa, 2020. MMWR Morb Mortal Wkly Rep. 2020;69:1305–9. doi: https://doi.org/10.15585/mmwr.mm6937a6.
- **27** Jones N. How COVID-19 is changing the cold and flu season. Nature. 2020;588(7838):388–90. doi: <a href="https://doi.org/10.1038/d41586-020-03519-3">https://doi.org/10.1038/d41586-020-03519-3</a>.
- 28 Van Aert GJ, Van der Laan L, Boonman-de Winter LJ, Berende CA, de Groot HG, Van Hensbroek PB, et al. Effect of the COVID-19 pandemic during the first lockdown in the Netherlands on the number of trauma-related admissions, trauma severity and treatment: the results of a retrospective cohort study in a level 2 trauma centre. BMJ Open. 2021;11(2). doi: <a href="https://doi.org/10.1136/bmjopen-2020-045015">https://doi.org/10.1136/bmjopen-2020-045015</a>.
- **29** Giudici R, Lancioni A, Gay H, Bassi G, Chiara O, Mare C, et al. Impact of the COVID-19 outbreak on severe trauma trends and healthcare system reassessment in Lombardia, Italy: an analysis from the regional trauma registry. World J Emerg Surg. 2021;16(1). doi: <a href="https://doi.org/10.1186/s13017-021-00383-y">https://doi.org/10.1186/s13017-021-00383-y</a>.
- 30 Heart and Stroke Foundation. News release: new data confirms significant drop in heart attack patients presenting at hospital [news release]. Ottawa, ON: Heart and Stroke Foundation; 2020 Apr 30 [cited 2021 Jun 3]. Available from: <a href="https://www.heartandstroke.ca/what-we-do/media-centre/news-releases/news-release-new-data-confirms-significant-drop-in-heart-attack-patients-presenting-at-hospital">https://www.heartandstroke.ca/what-we-do/media-centre/news-releases/news-release-new-data-confirms-significant-drop-in-heart-attack-patients-presenting-at-hospital</a>.
- 31 BC Centre for Disease Control. Dual public health emergencies: overdose in BC during COVID-19. Vancouver, BC: BC Centre for Disease Control; 2021 Mar 31 [cited 2022 Mar 4]. Available from: <a href="http://www.bccdc.ca/resource-gallery/Documents/Statistics%20and%20Research/Statistics%20and%20Reports/Overdose/2021.04.16 Infographic OD%20Dashboard.pdf">http://www.bccdc.ca/resource-gallery/Documents/Statistics%20and%20Research/Statistics%20and%20Reports/Overdose/2021.04.16 Infographic OD%20Dashboard.pdf</a>.
- 32 Canadian Press. 'Distressing' drop in people seeking care for heart attacks in Canada, data suggests. CBC [Internet]. 2020 May 1 [cited 2021 Jun 3]. Available from: <a href="https://www.cbc.ca/news/health/heart-attacks-covid-1.5552090">https://www.cbc.ca/news/health/heart-attacks-covid-1.5552090</a>.

- 33 Canadian Association of Emergency Physicians. The Canadian Triage and Acuity Scale combined adult/paediatric educational program participants manual. Version 2.5b. Ottawa, ON: Canadian Association of Emergency Physicians; 2013 [cited 2021 Jan 7]. Available from: <a href="http://ctas-phctas.ca/wp-content/uploads/2018/05/participant\_manual\_v2.5b">http://ctas-phctas.ca/wp-content/uploads/2018/05/participant\_manual\_v2.5b</a> november 2013 0.pdf.
- 34 Canadian Institute for Health Information. NACRS emergency department visits: comparison of January to March 2019 and January to March 2020. Ottawa, ON: Canadian Institute for Health Information; 2020 [cited 2020 Sep 5]. Available from: <a href="https://www.cihi.ca/sites/default/files/document/nacrs-ed-visits-comparison-jan-mar-2019-and-jan-mar-2020-data-tables en.xlsx">https://www.cihi.ca/sites/default/files/document/nacrs-ed-visits-comparison-jan-mar-2019-and-jan-mar-2020-data-tables en.xlsx</a>.
- **35** Population Health Surveillance and Epidemiology. Percentage of emergency department visits, by triage level, NACRS-reporting facilities [dataset]. Victoria, BC: Office of the Provincial Health Officer; 2021 Apr [cited 2021 Aug 4].
- **36** Island Health. Supporting safe health-care at hospitals and clinics during COVID-19 [Internet]. Victoria, BC: Island Health; [cited 2023 Nov 29]. Available from: <a href="https://www.islandhealth.ca/news/news-releases/supporting-safe-health-care-hospitals-and-clinics-during-covid-19">https://www.islandhealth.ca/news/news-releases/supporting-safe-health-care-hospitals-and-clinics-during-covid-19</a>.
- 37 Canadian Institute for Health Information. Emergency department wait time for physician initial assessment (90% spent less, in hours) [Internet]. Ottawa, ON: Canadian Institute for Health Information; 2021 [cited 2021 May 10]. Available from: <a href="https://www.cihi.ca/en/indicators/emergency-department-wait-time-for-physician-initial-assessment-90-spent-less-in-hours">https://www.cihi.ca/en/indicators/emergency-department-wait-time-for-physician-initial-assessment-90-spent-less-in-hours</a>.
- 38 Public Health Agency of Canada. From risk to resilience: an equity approach to COVID-19. The Chief Public Health Officer of Canada's report on the state of public health in Canada 2020. Ottawa, ON: Public Health Agency of Canada; 2020 [cited 2022 Mar 30]. Available from: <a href="https://www.canada.ca/content/dam/phac-aspc/documents/corporate/publications/chief-public-health-officer-reports-state-public-health-canada/from-risk-resilience-equity-approach-covid-19/cpho-covid-report-eng.pdf">https://www.canada.ca/content/dam/phac-aspc/documents/corporate/publications/chief-public-health-officer-reports-state-public-health-canada/from-risk-resilience-equity-approach-covid-19/cpho-covid-report-eng.pdf</a>.
- **39** Persaud N, Woods H, Workentin A, Adekoya I, Dunn JR, Hwang SW, et al. Recommendations for equitable COVID-19 pandemic recovery in Canada. CMAJ. 2021;193(49):E1878–88. doi: <a href="https://doi.org/10.1503/cmaj.210904">https://doi.org/10.1503/cmaj.210904</a>.
- **40** Wolfson JA, Leung CW. An opportunity to emphasize equity, social determinants, and prevention in primary care. Ann Fam Med. 2020;18(4):290–1. doi: <a href="https://doi.org/10.1370/afm.2559">https://doi.org/10.1370/afm.2559</a>.
- 41 Berkowitz SA, Cené CW, Chatterjee A. Covid-19 and health equity—time to think big. New Engl J of Med. 2020;383(12). doi: https://doi.org/10.1056/nejmp2021209.
- **42** BC Women's Health Foundation. Women and COVID-19 [Internet]. Vancouver, BC: BC Women's Health Foundation; 2020 Apr 9 [cited 2020 Aug 26]. Available from: <a href="https://www.bcwomensfoundation.org/women-and-covid-19/">https://www.bcwomensfoundation.org/women-and-covid-19/</a>.
- **43** Reich A. The invisibility of the single parent during COVID-19. Chatelaine [Internet]. 2020 Jul 28 [cited 2021 Oct 29]. Available from: <a href="https://www.chatelaine.com/opinion/single-parent-covid-19/">https://www.chatelaine.com/opinion/single-parent-covid-19/</a>.

- 44 Clopton J. COVID rules sending the sick to hospitals alone. WebMD [Internet]. 2020 Apr 6 [cited 2021 Oct 29]. Available from: https://www.webmd.com/lung/news/20200406/covid-rules-sending-the-sick-to-hospitals-alone.
- **45** Turpel-Lafond ME. In plain sight: addressing Indigenous-specific racism and discrimination in B.C. health care. Victoria, BC: Addressing Racism Review; 2020 [cited 2021 Jan 20]. Available from: <a href="https://engage.gov.bc.ca/app/uploads/sites/613/2020/11/In-Plain-Sight-Summary-Report.pdf">https://engage.gov.bc.ca/app/uploads/sites/613/2020/11/In-Plain-Sight-Summary-Report.pdf</a>.
- 46 Monchalin R, Smylie J, Nowgesic E. "I guess I shouldn't come back here": racism and discrimination as a barrier to accessing health and social services for urban Métis women in Toronto, Canada. J Racial Ethn Health Disparities. 2020;7(2):251–61. doi: <a href="http://dx.doi.org/10.1007/s40615-019-00653-1">http://dx.doi.org/10.1007/s40615-019-00653-1</a>.
- 47 Etowa J, Kohoun B, Etowa EB, Kiros G, Mbagwu I, Muray M, et al. "Leaving no one behind": COVID-19 response in Black Canadian communities. Witness: The Canadian Journal of Critical Nursing Discourse. 2020;2(2):124–30. doi: <a href="https://doi.org/10.25071/2291-5796.84">https://doi.org/10.25071/2291-5796.84</a>.
- **48** Nelson SE, Wilson K. Understanding barriers to health care access through cultural safety and ethical space: Indigenous People's experiences in Prince George, Canada. Soc Sci Med. 2018;218:21–7. doi: <a href="https://doi.org/10.1016/j.socscimed.2018.09.017">https://doi.org/10.1016/j.socscimed.2018.09.017</a>.
- **49** Tang SY, Browne AJ. 'Race' matters: racialization and egalitarian discourses involving Aboriginal people in the Canadian health care context. Ethn Health. 2008;13(2):109–27. doi: https://doi.org/10.1080/13557850701830307.
- 50 Trans PULSE Canada COVID Cohort Working Group. COVID-19 testing and diagnosis among transgender and non-binary people in Canada [Internet]. Ontario: Trans PULSE Canada; 2020 Dec 8 [cited 2021 Aug 5]. Available from: <a href="https://transpulsecanada.ca/results/report-covid-19-testing-and-diagnosis-among-transgender-and-non-binary-people-incanada/">https://transpulsecanada.ca/results/report-covid-19-testing-and-diagnosis-among-transgender-and-non-binary-people-incanada/</a>.
- **51** Morgan R, Baker P, Griffith DM, Klein SL, Logie CH, Mwiine AA, et al. Beyond a zero-sum game: how does the impact of COVID-19 vary by gender? Front. Sociol. 2021;6. doi: https://doi.org/10.3389/fsoc.2021.650729.
- **52** Mawani R, Territory UM. A historical account of the pandemic: health, colonialism and racism in Canada [Internet]. Royal Society of Canada; 2020 Nov 12 [cited 2021 Aug 05]. Available from: https://rsc-src.ca/en/covid-19/impact-covid-19-in-racialized-communities/historical-account-pandemic-health-colonialism.
- 53 Reitmanova S, Gustafson DL, Ahmed R. "Immigrants can be deadly": critical discourse analysis of racialization of immigrant health in the Canadian press and public health policies. Canadian Journal of Communication. 2015:11;40. doi: https://doi.org/10.22230/cjc.2015v40n3a2831.

- 54 Hyman I. Racism as a determinant of immigrant health [Internet]. Ottawa: Strategic Initiatives and Innovations Directorate of the Public Health Agency of Canada; 2009 [cited 2021 Aug 5]. Available from: <a href="https://www.researchgate.net/publication/255654375">https://www.researchgate.net/publication/255654375</a> Racism as a determinant of immigrant health.
- 55 Government of British Columbia. MSP response to COVID-19 [Internet]. Victoria, BC: Government of British Columbia [cited 2021 Aug 5]. Available from: <a href="https://www2.gov.bc.ca/gov/content/health/health-drug-coverage/msp/bc-residents/msp-covid-19-response">https://www2.gov.bc.ca/gov/content/health/health-drug-coverage/msp/bc-residents/msp-covid-19-response</a>.
- **56** Pottie K, Greenaway C, Feightner J, Welch V, Swinkels H, Rashid M, et al. Evidence-based clinical guidelines for immigrants and refugees. CMAJ. 2011;183(12):E824–925. doi: https://doi.org/10.1503/cmaj.090313.
- 57 Social Policy and Projects Research and Data Team. Populations disproportionately impacted by COVID-19: current state assessment. Vancouver, BC: City of Vancouver; 2021 [cited 2021 Jun 3]. Available from: <a href="https://vancouver.ca/files/cov/pdi-covid-current-state-report-january-2021.pdf">https://vancouver.ca/files/cov/pdi-covid-current-state-report-january-2021.pdf</a>.
- 58 MOSAIC. Annual report 2019/2020. Vancouver, BC: MOSAIC; 2020 [cited 2021 Jun 3]. Available from: <a href="https://www.mosaicbc.org/wp-content/uploads/2020/09/MOSAIC-Annual-Report-19-20-Double-sided-FSC-Linked-Copy\_compressed.pdf">https://www.mosaicbc.org/wp-content/uploads/2020/09/MOSAIC-Annual-Report-19-20-Double-sided-FSC-Linked-Copy\_compressed.pdf</a>.
- 59 BC Ministry of Health. Minister's statement on the first anniversary of the report on Indigenous-specific racism in B.C.'s health-care system [news release]. Victoria, BC: BC Ministry of Health; 2021 Nov 30 [cited 2022 Apr 20]. Available from: https://news.gov.bc.ca/releases/2021HLTH0075-002294.
- **60** Canadian Institute for Health Information. COVID-19's impact on physician services [Internet]. Ottawa, ON: Canadian Institute for Health Information; 2021 [cited 2023 Oct 18]. Available from: <a href="https://www.cihi.ca/en/covid-19-resources/impact-of-covid-19-on-canadas-health-care-systems/physician-services">https://www.cihi.ca/en/covid-19-resources/impact-of-covid-19-on-canadas-health-care-systems/physician-services</a>.
- 61 Canadian Institute for Health Information. Virtual care: A major shift for Canadians receiving physician services [Internet]. Ottawa, ON: Canadian Institute for Health Information; 2022 [cited 2023 Oct 18]. Available from: <a href="https://www.cihi.ca/en/virtual-care-a-major-shift-for-canadians-receiving-physician-services">https://www.cihi.ca/en/virtual-care-a-major-shift-for-canadians-receiving-physician-services</a>.
- **62** BC Stats. Population estimates & projections for British Columbia [Internet]. Victoria, BC: BC Stats; [cited 2023 Nov 29]. Available from: <a href="https://bcstats.shinyapps.io/popApp/">https://bcstats.shinyapps.io/popApp/</a>.
- **63** Yao J, Irvine MA, Klaver B, Zandy M, Dheri A, Grafstein E, Smolina K. Changes in emergency department use in British Columbia, Canada, during the first 3 years of the COVID-19 pandemic. CMAJ. 2023;195(34):E1141-1150. doi: https://doi.org/10.1503/cmaj.221516.

CHAPTER 8: EMERGENCY DEPARTMENT USE 145