



**Office of the Auditor General  
Prince Edward Island**

**Surgical Wait Times -  
Cataract, Knee Replacement  
and Hip Replacement**

December 2023



Prince Edward Island

Office of the  
Auditor General

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Honourable Speaker and  
Members of the Legislative Assembly  
Province of Prince Edward Island

I have the honour of presenting this Report - Surgical Wait Times - Cataract, Knee Replacement and Hip Replacement from the Office of the Auditor General of Prince Edward Island to the Legislative Assembly.

Respectfully submitted,

Darren Noonan, CPA, CA  
Auditor General

Charlottetown, Prince Edward Island  
December 12, 2023



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# Surgical Wait Times - Cataract, Knee Replacement and Hip Replacement - Highlights

## Why we did this Audit

- It is important for Health PEI to manage all surgical resources to improve outcomes for patients.
- We wanted to perform an examination on the management of surgical wait times. We selected three surgeries based on the availability of established wait time benchmarks and historical wait time data: cataract, knee and hip replacement.
- For the period of April 1, 2022 - September 30, 2022, many Islanders who required cataract, knee replacement and hip replacement surgeries did not receive the surgery within the national benchmark timeframes.
- The 50<sup>th</sup> percentile wait times for cataract, knee replacement and hip replacement surgeries in PEI increased approximately 35 percent between 2013-2022.
- Patients waiting for these surgeries can experience a decreased quality of life.

## Objective

- To assess whether Health PEI has systems and processes for tracking, managing, and reporting on patients waiting for the following surgeries:
  - cataract;
  - knee replacement; and
  - hip replacement.

## Conclusions

- Health PEI had systems and processes for tracking, managing and reporting on patients waiting for cataract, knee replacement and hip replacement surgeries, however the information was not being used to take corrective action where required.
- We identified a lack of documented policies and procedures, deviations from best practice for surgical wait times calculations and reporting, and issues with wait time data not being provided to all stakeholders.

**Audit Scope Period: April 1, 2021 to June 30, 2022**

## What we Found

- |                        |   |
|------------------------|---|
| Wait Time Calculations | <ul style="list-style-type: none"><li>○ Health PEI did not have documented policies and procedures on the calculation of surgical wait times.</li><li>○ Although Health PEI calculated surgical wait times, the calculation was not in accordance with national standards.</li><li>○ Some surgeries were included in the surgical wait time calculations which should not have been, based on national standards.</li></ul> |
|------------------------|---|

### RECOMMENDATIONS (paragraphs 37, 41, and 46)

- |                                |  |
|--------------------------------|--|
| Monitoring Surgical Wait Times | <ul style="list-style-type: none"><li>○ Health PEI established surgical wait time targets based on national standards.</li><li>○ Surgical wait times provided to the Executive Leadership Team were calculated differently than surgical wait times based on national standards.</li><li>○ Health PEI's Executive Leadership Team does not have documentation to support they have a process for identifying factors causing surgical wait times to be higher than target, and for proposing solutions to these factors.</li></ul> |
|--------------------------------|--|

### RECOMMENDATIONS (paragraphs 60 and 63)

- |                           |   |
|---------------------------|---|
| Reporting to Stakeholders | <ul style="list-style-type: none"><li>○ We noted significant issues regarding the communication of wait time information. Health PEI did not:<ul style="list-style-type: none"><li>- provide a correct description on the Province's website of how surgical wait times are measured;</li><li>- report some key surgical wait time data to the public;</li><li>- report current surgical wait times to the general public or referring physicians;</li><li>- track or report on consult wait times;</li><li>- report surgical wait time per surgeon; or</li><li>- report surgical wait times to the Health PEI Board of Directors from October 2021 to the date of this audit report.</li></ul></li></ul> |
|---------------------------|---|

### RECOMMENDATIONS (paragraphs 75, 78, 83, 87, 90, 94 and 99)

The observations and recommendations noted throughout this report should be considered for all surgeries.

# Surgical Wait Times - Cataract, Knee Replacement and Hip Replacement

## Why it's important

It is important that Health PEI have processes in place that will balance all surgical services with the needs of the population. The provincial healthcare system is under tremendous pressure due to a number of reasons, resulting in surgery backlogs. Surgical wait times for cataract, knee replacement and hip replacement surgeries have been increasing in Prince Edward Island which is consistent across Canada.

According to Statistics Canada, Prince Edward Island had a population of approximately 176,000 people at April 1, 2023. The baby boomer generation<sup>1</sup> makes up approximately 25 percent<sup>2</sup> of the Province's population. With this generation aging, there is an expectation that the demand for cataract and joint surgeries will increase even more in the future.

## What we found

We found that Health PEI had systems and processes for tracking, managing and reporting on patients waiting for cataract, knee replacement and hip replacement surgeries; however, the following weaknesses were identified:

- Health PEI did not have documented policies or procedures for how surgical wait times are to be calculated.
- Health PEI's surgical wait time calculations were not consistent with national standards.
- Some surgeries included in Health PEI's surgical wait time calculations should be excluded in accordance with national standards.

- Health PEI's Executive Leadership Team received the average surgical wait times rather than the surgical wait times using the 50<sup>th</sup> and 90<sup>th</sup> percentile, which are the national standard.
- Health PEI's Executive Leadership Team did not have a process to identify factors causing surgical wait times to be higher than targets, or to propose solutions to these factors.
- Health PEI's description on the provincial website on how surgical wait times are calculated was incorrect.
- Health PEI does not publicly report on the 50<sup>th</sup> percentile wait time, which is inconsistent with national standards.
- Health PEI did not track or report on consult wait times for surgeons.
- Health PEI did not report current surgical wait times to the public or referring physicians.
- Health PEI did not report surgical wait times per surgeon.
- Health PEI did not report surgical wait times to the Health PEI Board of Directors from October 2021 to the date of this audit report.

We have made twelve recommendations to Health PEI. These recommendations are included in **Appendix A**.

<sup>1</sup> The baby boomer generation refers to those born between 1946 and 1964.

<sup>2</sup> Based on the 2021 Canadian census

## BACKGROUND

1. Surgeries are classified as either emergency or elective. Emergency surgeries are performed due to an urgent medical condition, which may be life threatening.
2. Elective surgeries are surgeries that can be scheduled in advance. These surgeries are still important and are not always optional.
3. We focused on specific surgeries during the audit to identify weaknesses in processes within Health PEI. These surgeries were selected partly due to the availability of established wait time benchmarks, and historical wait time data.
4. We selected the following three elective surgeries for this audit:
  - cataract;
  - knee replacement; and
  - hip replacement<sup>3</sup>.

The surgeries selected are performed solely at the Queen Elizabeth Hospital. For the remainder of this report when we refer to surgeries, we are referring to these three surgeries.

5. A cataract is a clouding of the lens of the eye. It is estimated that 2.5 million Canadians are living with cataracts.
6. Knee and hip replacements are the most common joint replacement surgeries. Knee replacement surgery is a procedure to replace the weight-bearing surfaces of the

knee joint. Hip replacement surgery is a surgical procedure where the hip joint is replaced by a prosthetic implant.

7. Patients waiting for these surgeries may experience vision impairment, pain, disability, and stiffness. This negatively impacts the patient's quality of life as they can be unable to conduct their normal day to day activities.
8. According to the *Health Services Act*, Health PEI is responsible for providing publicly funded healthcare services in Prince Edward Island. The Province's surgical wait times for cataract, knee replacement and hip replacement surgeries are the responsibility of Health PEI. **Appendix D** shows the most recent organization chart for Health PEI's leadership group.
9. In 2004, after recognizing the need to make timely access to quality health care a reality for all Canadians, the First Ministers of Canada entered into the *2004 Health Accord*. This agreement included a *10-year Plan to Strengthen Health Care* which was based on the recognition that timely health care across Canada was the country's biggest concern, and a national priority.
10. An action plan developed by the First Ministers focused on ensuring that all Canadians have access to the health care services they need when they need them. Wait times for five priority areas were identified. These were:
  - cancer treatment;
  - cardiac care;

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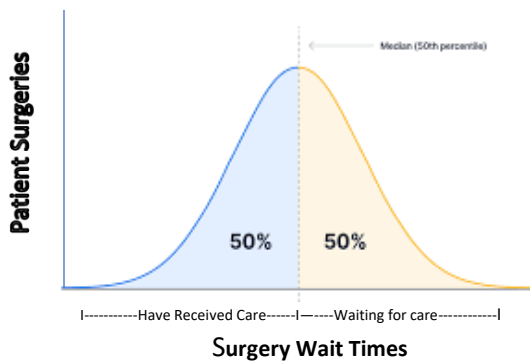
<sup>3</sup> Total hip replacements were looked at during the audit. Partial hip replacements were not included.

- diagnostic imaging;
  - joint replacement; and
  - sight restoration.
11. Prince Edward Island, along with other Canadian provinces, began working with the Canadian Institute of Health Information (CIHI) to improve public reporting as it related to wait times for these priority areas, including surgical wait times for cataract, knee replacement and hip replacement surgeries. All provinces began to report this information annually to CIHI.
  12. CIHI was founded in 1994 and is an independent, not-for-profit organization, which provides essential information on Canada’s health systems and the health of Canadians. CIHI’s goal is to help provincial, federal, territorial, and Indigenous partners find solutions to their most important health data needs. CIHI helps these stakeholders assess the performance of health care systems by:
    - producing benchmark indicators related to improving performance;
    - supporting the understanding and use of the benchmark indicators; and
    - gathering and reporting data on Canadian and provincial healthcare system statistics.
  13. CIHI provides wait time benchmarks, or the maximum amount of time considered appropriate to wait for surgery. During our audit scope period, the wait time benchmarks established by CIHI for the surgeries we examined were:
    - cataract – 112 days;
    - knee replacement – 182 days; and
    - hip replacement – 182 days.
  14. Annually, CIHI publishes a report called the *Wait Times for Priority Procedures in Canada*. This report includes the following statistics related to surgical wait times:
    - the 50<sup>th</sup> and 90<sup>th</sup> percentile wait time for each surgery;
    - number of surgeries; and
    - percentage of surgeries performed within benchmark timeframes.
  15. The information published in CIHI’s report has become the standard within the country and, as a result, this data allows Canadian provinces to measure success, or identify areas for improvement related to surgical wait times. Provinces can also compare how they are doing related to other jurisdictions.

**Wait times using percentiles**

16. Wait time information is often presented using percentiles. Percentiles show rankings compared to others and are considered more accurate than averages, as they reduce the influence of extreme values on the results (ie. long or short surgical wait times). The 50<sup>th</sup> and 90<sup>th</sup> percentiles are the most used for comparing wait times.
17. The 50th percentile, also known as the median, is the number of days in which half of the patients have received surgery, and half are still waiting. It is considered a stable measurement and is useful for identifying long-term trends. (See **Exhibit 1**).

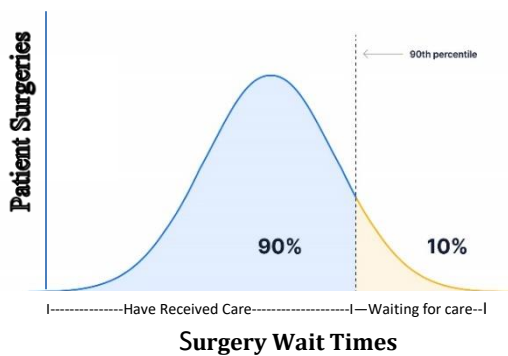
**EXHIBIT 1  
50TH PERCENTILE SURGICAL WAIT TIME**



Source: Derived from CIHI definitions

18. The 90th percentile is the number of days within which nine out of 10 patients received surgery, and one out of 10 patients waited this many days or more before receiving surgery. This percentile is commonly used because it is not affected by the ten percent of patients which waited the longest amount of time for surgery. This is shown in **Exhibit 2**.

**EXHIBIT 2  
90TH PERCENTILE SURGICAL WAIT TIME**



Source: Derived from CIHI definitions

19. According to the Province’s website on September 23, 2023, patients in the 90<sup>th</sup>

percentile received surgeries within the following timeframe:

- 568 days for cataract surgery<sup>4</sup>;
- 605 days for knee replacement<sup>4</sup>; and
- 601 days for hip replacement<sup>5</sup>.

**PEI vs other Canadian provinces**

20. In the following two exhibits, we have presented wait times for patients in the 50<sup>th</sup> percentile. Although the goal is to have all surgeries completed within the benchmark timeframes, these exhibits show how long it took half of patients to receive surgery. Therefore, the other half of patients waited longer. The wait time for patients in the 90<sup>th</sup> percentile for the same surgeries, and timeframes, are shown in **Appendix E**.

21. **Exhibit 3** shows that between April 1, 2022 to September 30, 2022, half of cataract patients on PEI received surgery within 127 days. The national benchmark was 112 days, and PEI’s wait time for cataract surgery was higher than all jurisdictions, except for Newfoundland.

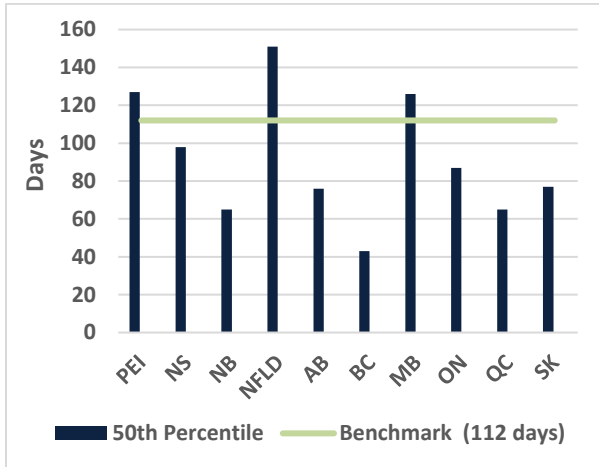
<sup>4</sup> For surgeries completed between October 1, 2022-March 31, 2023.

<sup>5</sup> For surgeries completed between April 1, 2022-September 30, 2022



**EXHIBIT 3  
CANADIAN PROVINCES  
50th PERCENTILE WAIT TIMES  
CATARACT SURGERY**

**APRIL 1, 2022 - SEPTEMBER 30, 2022**

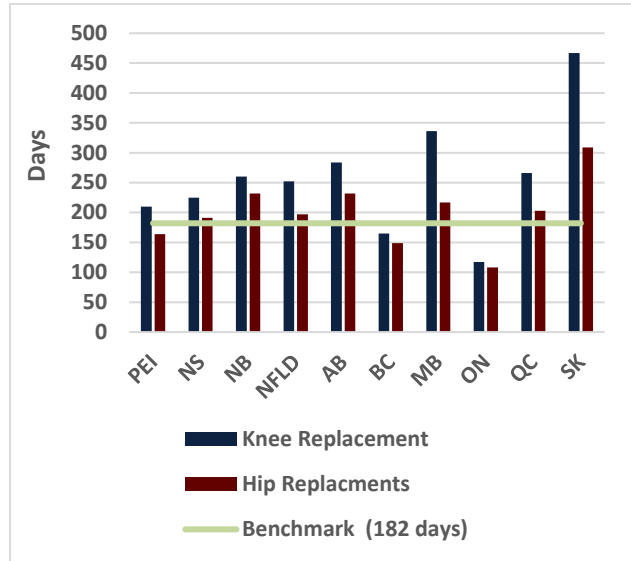


Source: 2022 Canadian Institute for Health Information Wait Times for Priority Procedures in Canada Report.

22. **Exhibit 4** provides a comparison of wait times for knee and hip replacement surgeries in the 50<sup>th</sup> percentile, compared to the benchmark of 182 days for all provinces between April 1, 2022 and September 30, 2022. During this period, half of patients needing knee replacement surgery in PEI received it within 210 days, and half of patients needing hip replacement surgery received it within 164 days.

**EXHIBIT 4  
CANADIAN PROVINCES  
50<sup>TH</sup> PERCENTILE WAIT TIMES  
KNEE AND HIP REPLACEMENT SURGERIES**

**APRIL 1, 2022 - SEPTEMBER 30, 2022**



Source: 2022 Canadian Institute for Health Information Wait Times for Priority Procedures in Canada Report.

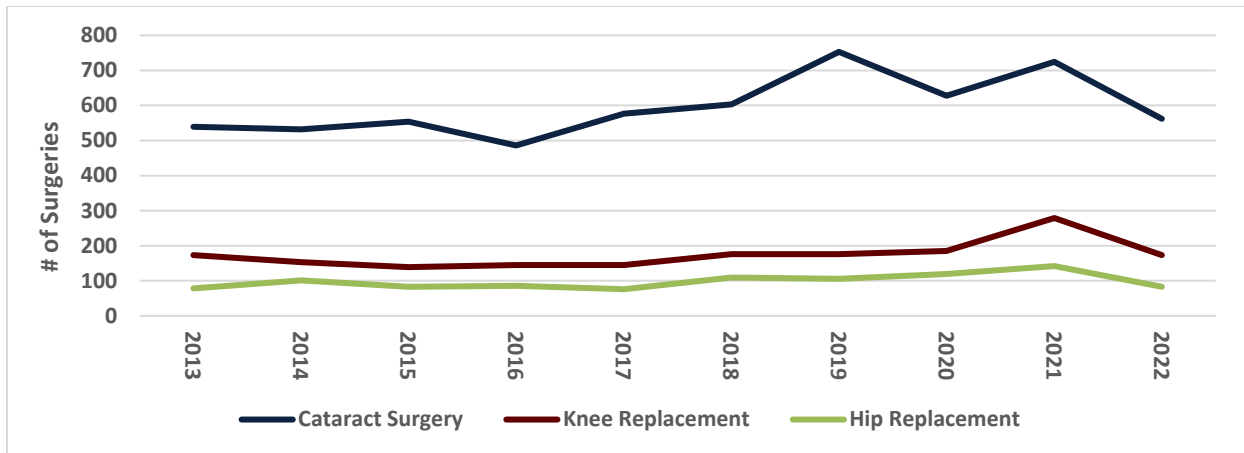
**Number of surgeries**

23. Provinces report to CIHI annually for the six-month period April 1 to September 30. Health PEI performed the following number of surgeries from April 1 to September 30, 2022:

- 562 cataract surgeries;
- 173 knee replacement surgeries; and
- 83 hip replacement surgeries.

24. The number of surgeries performed by Health PEI, as reported to CIHI, did not significantly change from 2013 to 2022, as shown in **Exhibit 5**.

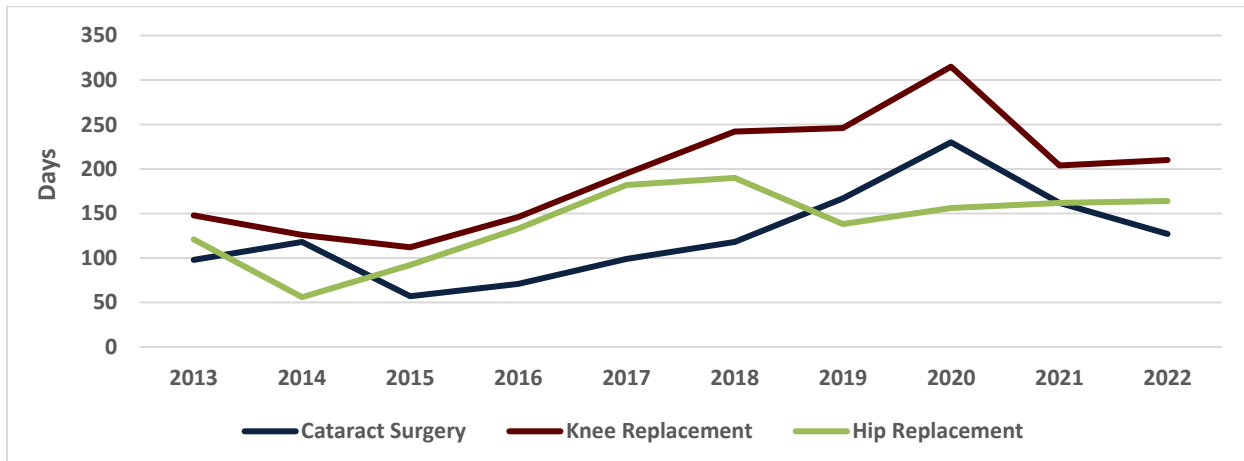
**EXHIBIT 5**  
**NUMBER OF SURGERIES**  
**PRINCE EDWARD ISLAND**  
**APRIL 1 TO SEPTEMBER 30**  
**2013-2022**



Source: 2022 Canadian Institute for Health Information Wait Times for Priority Procedures in Canada Report.

25. PEI’s wait times, using the 50<sup>th</sup> percentile wait times, have increased from 2013 to 2022, as shown in **Exhibit 6**.

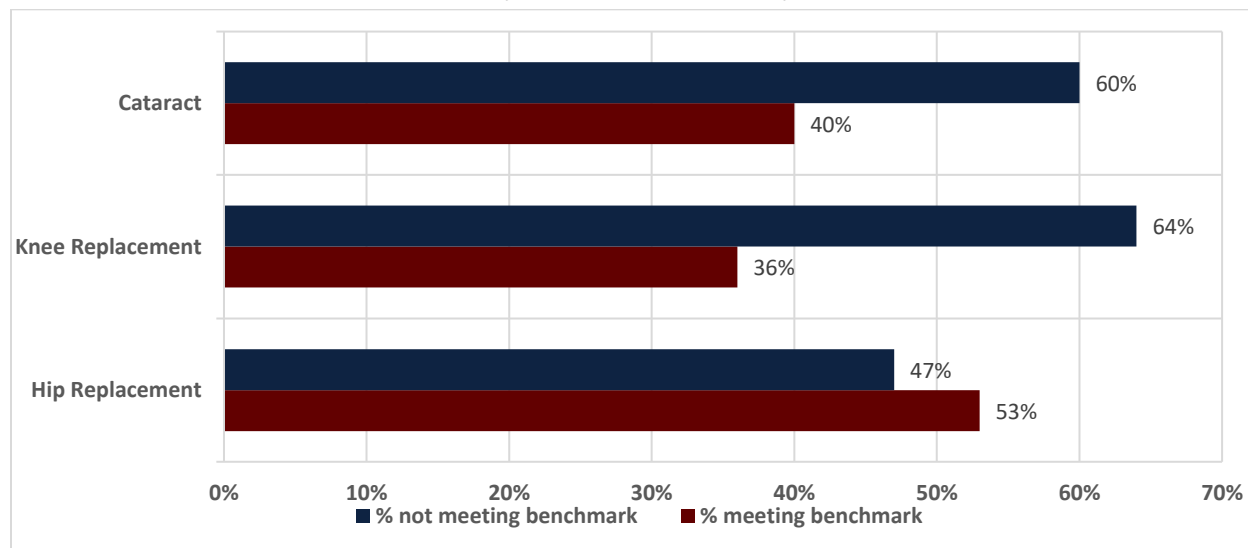
**EXHIBIT 6**  
**50<sup>th</sup> PERCENTILE WAIT TIMES**  
**PRINCE EDWARD ISLAND**  
**APRIL 1 TO SEPTEMBER 30**  
**2013-2022**



Source: 2022 Canadian Institute for Health Information Wait Times for Priority Procedures in Canada Report.

26. **Exhibit 7** shows the percentage of surgeries performed in Prince Edward Island within the national benchmark timeframes, between April 1, 2022 and September 30, 2022. As shown, 60 percent of cataract surgeries, 64 percent of knee replacement surgeries, and 47 percent of hip replacement surgeries were not performed within the benchmark timeframes.

**EXHIBIT 7**  
**PEI SURGERIES OCCURRING WITHIN NATIONAL BENCHMARK TIMEFRAMES**  
**PERCENTAGE**  
**APRIL 1, 2022 - SEPTEMBER 30, 2022**



Source: Derived from the 2022 Canadian Institute for Health Information Wait Times for Priority Procedures in Canada Report

27. Based on the data in **Exhibit 7**, the number of patients who received surgery between April 1, 2022 and September 30, 2022, and waited longer than the benchmark timeframe was as follows:

- 337 cataract surgery patients;
- 111 knee replacement surgery patients;
- and
- 39 hip replacement surgery patients.

#### AUDIT OBJECTIVE AND SCOPE

28. The objective of this audit was to assess whether Health PEI has systems and processes for tracking, managing, and reporting on patients waiting for the following surgeries:

- cataract;
- knee replacement; and
- hip replacement.

29. This report summarizes the results of our audit work on surgical wait times for the period April 1, 2021 – June 30, 2022.

30. This report includes twelve recommendations which are listed in **Appendix A**. Details on the audit standards, objective and scope are included in **Appendix B**, and the audit criteria are included in **Appendix C**. The following sections of our report provide information on the observations, related recommendations and conclusions from our audit.

## OBSERVATIONS AND RECOMMENDATIONS

### SURGICAL WAIT TIME CALCULATIONS

31. Health PEI did not have documented policies and procedures for the calculation of surgical wait times.
32. Health PEI's surgical wait time calculations were not consistent with national standards. Health PEI used a start date, and included surgeries in the wait time calculations, which were not in accordance with national standards.

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#### Surgical wait time information

33. Surgical wait time data provides important information to patients, health care providers, and health authorities. This information gives patients, and their health care providers, an estimate of when a surgery could be booked, which can help them decide on a course of treatment. Health authorities can use this information to analyze trends and compare to other jurisdictions to determine if operational changes are needed.

34. We looked to see if Health PEI calculated surgical wait times appropriately and consistently.

35. To help define reporting requirements and an accountability framework, we expected there to be documented policies and procedures regarding the calculations of surgical wait times. Specifically, we expected policies and procedures to outline how the calculation is to be completed, and include such things as the start and end date for the calculation, and what surgeries to exclude from the calculations.

#### **Health PEI did not have documented policies or procedures for calculating surgical wait times**

36. We found that Health PEI did not have documented policies and procedures for calculating surgical wait times. We noted various issues with the calculation of surgical wait times, which are discussed in the following sections of this report. Having well-defined, documented policies and procedures would help to address many of these issues.

#### **Recommendation**

**37. Health PEI should have documented policies and procedures for calculating surgical wait times.**

## Surgical wait times

### Start date for Health PEI's surgical wait time calculations differed from national standards

38. In the absence of policies and procedures, we looked to national standards to determine how surgical wait times should be calculated. We compared this information to how Health PEI calculated its wait times during our scope period. CIHI's definition of surgical wait times states the start date of the calculation is the date the surgeon and the patient decide surgery is the best course of action. However, Health PEI used the date the hospital received the surgical booking form<sup>6</sup> as the starting point for their calculations.
39. We tested a sample of 29 surgeries in the six-month period of April 1, 2021 to September 30, 2021<sup>7</sup>. Of these 29, we found that on average, surgical booking forms were received by the hospital seven calendar days after it was decided that surgery was necessary.
40. By using the date the surgical booking form was received by the hospital, rather than the date it was decided that surgery was the best course of action, Health PEI did not take into consideration any delay in the hospital receiving the surgical booking form from the surgeons. This practice makes comparisons to established benchmarks less useful.

<sup>6</sup> Surgical booking form is completed by the surgeon, and the surgeon provides this form to the hospital to book a surgery date.

### Recommendation

**41. Health PEI should calculate its surgical wait times using the start dates based on national standards.**

### Exclusions from wait time calculation

42. When calculating surgical wait times, national standards require all surgeries performed during the period be included except for emergency cases, surgeries where the patient declined the first available surgery date, partial hip replacements, and the patient's second eye cataract surgery.

### Health PEI did not follow national standards regarding exclusions from wait time calculations.

43. We reviewed the surgical wait time calculations for the period between April 1, 2021 and September 30, 2021, to determine if the surgeries included in Health PEI's calculations were in accordance with national standards. We identified issues with wait time calculations for two of the exclusions discussed above:
- where the patient declined the first available surgery date; and
  - where the patient required a second eye cataract surgery.
44. We noted that Health PEI did not exclude surgeries where the patient declined the first available surgery date. We were advised that patients sometimes do not accept the first available surgery date, sometimes delaying

<sup>7</sup> At the time of our audit testing, surgeries completed during this timeframe were included in the most recent reporting to CIHI.

their surgery by months, resulting in longer wait times. Including these surgeries negatively skews the overall wait times. When patients choose to delay surgeries, it is not a true indication of how the healthcare system is operating.

45. We further noted that Health PEI's cataract surgical wait time calculation for the same period included 26 second eye cataract surgeries. Including these surgeries makes the data less comparable to benchmarks. We were informed that this was due to a programming error and that the issue has since been resolved.

#### **Recommendation**

#### **46. Health PEI should exclude the following surgeries from its surgical wait time calculations:**

- **surgeries where the patient declined the first available surgery date, and**
- **patients second eye cataract surgeries.**

## MONITORING SURGICAL WAIT TIMES

### *Summary of Findings*

47. Health PEI used national standards for surgical wait time performance targets.
48. Health PEI's Executive Leadership Team received the average surgical wait time data, rather than the surgical wait time data using the 50<sup>th</sup> and 90<sup>th</sup> percentile, which are the national standards.

49. There were no documented discussions by the Executive Leadership Team on what corrective actions should be taken to address wait time issues.
- 

50. Regular monitoring of surgical wait times by management is important in order to identify trends and issues that require corrective actions.

51. One mechanism to monitor surgical wait times is the use of performance indicators. Performance indicators allow an organization to evaluate how effectively it is achieving its objectives. For every indicator, a performance target should be established which the organization can work towards. A performance target is a specific goal to achieve within a certain timeframe, with a given level of resources.

52. It is generally accepted practice across Canada to compare wait times to the 50<sup>th</sup> and 90<sup>th</sup> percentiles. For example, when stating how long the wait for surgeries are, many provinces will provide the information like this:

- 50% (or 5 out of 10) of people are served within x days/weeks; and/or
- 90% (or 9 out of 10) of people are served within x days/weeks.

#### **Health PEI uses national standards for surgical wait time targets**

53. Health PEI uses CIHI's benchmarks as its targets for cataract, knee replacement and hip replacement surgeries. These benchmarks are presented in **Exhibit 8**.

**EXHIBIT 8**  
**TARGETS FOR SURGICAL WAIT TIMES**  
**HEALTH PEI**  
**JUNE 30, 2022**

Indicator	Target
Surgical Wait Times	<ul style="list-style-type: none"> <li>• Cataract – 112 Days</li> <li>• Knee Replacement – 182 Days</li> <li>• Hip Replacement – 182 Days</li> </ul>

Source: Health PEI

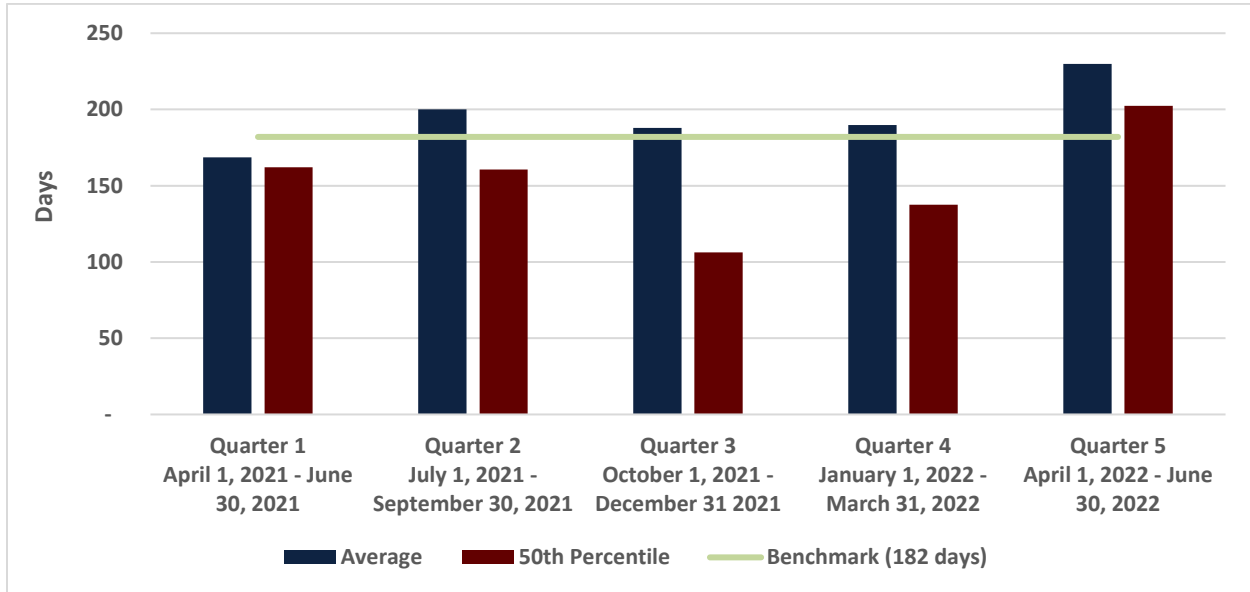
- Chief Medical Officer;
- Chief Operating Officer;
- Chief Administrative Officer; and
- Chief Nursing and Professional Practice Officer.

**Surgical wait times provided to the Executive Leadership Team calculated differently than wait times based on national standards**

54. We expected the Executive Leadership Team at Health PEI to receive wait time data, and compare this data to actual wait times achieved for surgeries to the performance targets using the 50<sup>th</sup> and 90<sup>th</sup> percentile. We expected this to be done on a regular basis, and at least quarterly.
55. Health PEI’s Executive Leadership Team is led by a Chief Executive Officer and includes the following positions:
- Chief Financial Officer;
  - Senior Communications Officer;

56. Health PEI’s Executive Leadership Team received quarterly reports on the average surgical wait times, rather than the surgical wait times using the 50<sup>th</sup> and 90<sup>th</sup> percentiles.
57. **Exhibit 9** compares the quarterly surgical wait times using the average and 50<sup>th</sup> percentile for hip replacement surgeries from April 1, 2021 to June 30, 2022. See **Appendix F** for the same comparison using knee replacement and cataract surgeries.

**EXHIBIT 9**  
**QUARTERLY SURGICAL WAIT TIMES (DAYS)**  
**HIP REPLACEMENT**  
**AVERAGE versus 50<sup>TH</sup> PERCENTILE**  
**APRIL 1, 2021-JUNE 30, 2022**



Source – Derived from quarterly reports received from Health PEI’s Health Information Unit Team.

58. The exhibit shows that there can be significant differences between the 50th percentile and the average surgical wait time. In these instances, the average surgical wait time was always longer than the 50th percentile wait time.

59. It is important that Health PEI’s Executive Leadership Team use appropriate data when comparing wait times to established targets. Assessing wait times using a different set of calculations than those based on the national standards, limits the usefulness of the data being used in decision making.

**Recommendation**

**60. Health PEI’s Executive Leadership Team should review surgical wait times using the 50<sup>th</sup> and 90<sup>th</sup> percentile calculations, on a quarterly basis.**

**No documentation to support the Executive Leadership Team has a process to identify and address factors causing wait times to be higher than targets**

61. We expected Health PEI would identify and address factors causing surgical wait times to be higher than targets. This process should involve documented discussions on actual surgical wait times achieved compared to targets, and proposing solutions to improve wait times, if necessary. We expected this process to closely involve the Executive



Leadership Team, or another group that was assigned responsibility for monitoring surgical wait times.

62. We reviewed the Executive Leadership Team meeting minutes from April 1, 2021 to June 30, 2022. There were no documented discussions on surgical wait times compared to targets, factors causing wait times to be higher than the targets, or proposing solutions to address wait time issues. We also found that no other group was assigned this responsibility during our audit scope period.

#### Recommendation

**63. Health PEI's Executive Leadership Team should monitor surgical wait times, identify the factors causing wait times to be higher than targets, and take corrective actions to address the issues identified. This process should be documented.**

## REPORTING TO STAKEHOLDERS

### *Summary of Findings*

64. Health PEI's description on the provincial website on how surgical wait times are measured was incorrect.
65. Although the 50<sup>th</sup> percentile wait time is calculated by a team within Health PEI, it is not publicly reported.
66. Health PEI did not report current surgical wait times to the public or referring physicians.

67. Health PEI did not track or report consult wait times for surgeons.

68. Health PEI did not report surgical wait times per surgeon.

69. Health PEI did not report surgical wait times to the Health PEI Board of Directors since October 2021.

- 
70. Timely public reporting of results helps to hold organizations accountable for its actions and informs the public on specific issues. We expected Health PEI to report surgical wait time data to:

- the general public;
- referring physicians; and
- Health PEI's Board of Directors.

71. We expected this information to be provided in a timely manner and to include:

- how the surgical wait times are calculated;
- 50<sup>th</sup> & 90<sup>th</sup> percentile surgical wait times; and
- surgical wait times per surgeon.

72. **Exhibit 10** provides a screenshot of the provincial website at September 25, 2023. The screenshot shows the 90<sup>th</sup> percentile cataract and knee replacement surgery wait times for the period October 1, 2022 – March 31, 2023, and the 90<sup>th</sup> percentile hip replacement surgery wait times for the period April 1, 2022-September 30, 2022.

**EXHIBIT 10  
PROVINCE OF PEI  
SURGERY WAIT TIMES  
PER PROVINCE'S WEBSITE  
AS AT SEPTEMBER 25, 2023**

## Surgery Wait Times

Wait times for surgery can vary. Some surgeons can have longer wait times than others. Your choice of surgeon is made by you and your family doctor while considering their current wait times and your particular needs.

Surgery wait times are available for the following procedures:

### Hip Replacement

This surgery replaces the hip joint with an artificial joint.

90% of patients are treated within  
**601 Days**

*Timeframe: April 1, 2022 to September 30, 2022*

[Historical Results \(CIHI\)](#) 

### Knee Replacement

This surgery replaces the knee joint with an artificial joint.

90% of patients are treated within  
**605 Days**

*Timeframe: October 1, 2022 to March 31, 2023*

[Historical Results \(CIHI\)](#) 

### Cataract Surgery

This surgery includes the removal of a clouded lens (or cataract) from the eye to improve vision.

90% of patients are treated within  
**568 Days**

*Timeframe: October 1, 2022 to March 31, 2023*

Source: Province of PEI's website - <https://www.princeedwardisland.ca/en/information/health-pei/surgery-wait-times>

**Public information on how surgical wait times are calculated was incorrect**

73. The Province’s website states: “The wait times measured for hip and knee replacement and cataract surgery is from your **appointment/ booking date** (when you and your surgeon decided that you needed surgery) to the **date of your surgery**. This does *not* include the wait time from your visit with your family doctor and the referral received for an appointment to see a surgeon.”

74. The description available on the Province’s website is not a correct description of how the Province’s wait times are actually measured. As noted previously, Health PEI calculates wait times from the date the hospital receives the surgical booking form, to the date the surgery is performed.

**Recommendation**

**75. Health PEI should provide accurate information to the public on how surgical wait times are calculated.**

**Health PEI does not publicly report on the 50<sup>th</sup> percentile wait times**

76. As shown in **Exhibit 10**, Health PEI reports the 90<sup>th</sup> percentile wait time for cataract, knee and hip replacement surgeries. Although the 50<sup>th</sup> percentile wait time is calculated by a team within Health PEI, and is available, it is not publicly reported.

77. Reporting the 50<sup>th</sup> percentile wait time, along with the 90<sup>th</sup> percentile wait time, is considered best practice across the country,

and provides important information to patients and health care providers. Health PEI management could not provide any reasoning for why the 50th percentile surgical wait times are not reported publicly.

**Recommendation**

**78. Health PEI should publicly report both the 50<sup>th</sup> and 90<sup>th</sup> percentile surgical wait times.**

**Current surgical wait times not reported to the public**

79. During our audit scope period, the surgical wait times provided on the Province’s website were not updated on a regular basis. As of April 21, 2023, the surgical wait times noted on the website for cataract, knee replacement and hip replacement surgeries were from the period October 1, 2021 to March 31, 2022. These wait times were over a year old and did not provide relevant and timely information regarding how long patients were currently waiting for these surgeries.

80. Management advised us that the website was not being updated regularly because the Website Coordinator position was vacant. We did confirm that the position was vacant from April 1, 2022 to September 26, 2022; however, that does not remove the responsibility to ensure current and accurate information is being reported to the public.

81. On September 25, 2023, the surgical wait time information reported on the website was as follows:

- cataract and knee replacement surgery 90th percentile wait times was for the period of October 1, 2022 to March 31, 2023; and
- hip replacement surgery 90<sup>th</sup> percentile wait time was for the time period of April 1, 2022 to September 30, 2022.

82. Although the cataract and knee replacement wait times were more up-to-date, the wait time data for hip replacements was almost a year old.

**Recommendation**

**83. Health PEI should provide current surgical wait time information on the Province’s website.**

84. The time from when a patient’s referral is received by a surgeon, to when the patient meets with a surgeon, is the consult wait time. This can significantly impact the length of time it takes a patient to receive a necessary surgery.

**Consult wait times not tracked or reported by Health PEI**

85. Health PEI did not track consult wait times. The information needed to track consult wait times is held with the surgeon. They are not required to share this information with Health PEI.

86. Without data on consult wait times, Health PEI cannot accurately determine how long Islanders wait to have surgery, given the consult wait time is a core component of total wait time. Consult wait time data would also be helpful for referring physicians, so they can make informed care decisions knowing expected timelines. Health PEI did

not track this information; therefore, it was not reported to referring physicians or to the general public.

**Recommendation**

**87. Health PEI should track and report consult wait times for surgical procedures to the general public and referring physicians.**

**Current wait time data not provided to referring physicians**

88. Referring physicians make critical healthcare decisions for their patients daily. Knowledge of the wait times for surgeries is important when making these healthcare decisions.

89. Health PEI had current surgical wait time data readily available, but this information was not made available to referring physicians during our scope period. Although referring physicians would have access to the wait times on the provincial website, this information is not always up-to-date or reflective of current wait times. Current information on surgical wait times would allow referring physicians to make better informed healthcare decisions for their patients.

**Recommendation**

**90. Health PEI should provide current surgical wait time data to referring physicians.**

**Wait times per surgeon not provided to referring physicians or the public**

- 91. Some surgeons can have significantly longer surgery wait times than others. Wait times per surgeon can vary significantly as it is impacted by various things, including their current wait list, allotted operating room time, and the number of referrals they receive from physicians.
- 92. As shown in **Exhibit 10**, the Province’s website states, “your choice of surgeon is made by you and your family doctor while considering their current wait times”. As a result, we expected each surgeons’ wait time would be available to the public and referring physicians so they could use this information when making care decisions.
- 93. We noted that wait times per surgeon was not available to referring physicians or the public. Health PEI staff confirmed that they have the data needed to calculate the wait time per surgeon; however, they do not produce this report. Without wait times per surgeon, referring physicians and their patients do not have the information to make informed decisions regarding surgeries.

**Recommendation**

**94. Health PEI should make information on current wait times per surgeon readily available to referring physicians and the public.**

**Lack of reporting to Health PEI Board of Directors**

- 95. Health PEI is governed by a Board of Directors. The Board’s mandate is to work on behalf of Islanders, to provide a high level of oversight of Health PEI’s financial management and delivery of safe, quality health care.
- 96. We expected that the Board of Directors would receive surgical wait time information at least on a quarterly basis.
- 97. Our audit found that the Board had been receiving surgical wait time information with a comparison to targets quarterly in the past. However, in December 2021, the information reported to the Board was changed, and this information was no longer provided to the Board after October 2021 to the date of this audit report.
- 98. Surgical wait time information for cataract, knee replacement, and hip replacement surgeries is vital information when assessing the delivery of timely health care. To have proper oversight of the Healthcare system, the Board of Directors should be receiving and reviewing surgical wait time information on at least a quarterly basis.

**Recommendation**

**99. Health PEI should provide the Board of Directors with surgical wait time data on a quarterly basis.**

100. In summary, the reporting of surgical wait time information is inconsistent among stakeholders, and some stakeholders are not receiving any information. See **Exhibit 11** for a summary of what information is provided to stakeholders.

**EXHIBIT 11**  
**SUMMARY OF WAIT TIME INFORMATION**  
**PROVIDED TO STAKEHOLDERS**  
**AS AT JUNE 30, 2022**

Stakeholder	Surgical Wait Time				
	Average	50 <sup>th</sup> percentile	90 <sup>th</sup> percentile	Wait Times per Surgeon	Consult wait times
Public	X	X	✓	X	X
Referring Physicians	X	X	X <sup>1</sup>	X	X
Health PEI’s Executive Leadership Team	✓	X	X <sup>1</sup>	X	X
Health PEI’s Board of Directors	X	X	X <sup>1</sup>	X	X

Source: Derived from audit work of the Office of the Auditor General.

<sup>1</sup>Although these stakeholders could obtain information from the Province’s website, we expected Health PEI to provide them with wait time information due to the nature of their roles in the health care system.

## CONCLUSION

101. Health PEI had systems and processes for tracking, managing and reporting on patients waiting for cataract, knee replacement and hip replacement surgeries. However, Health PEI did not have documented policies or procedures for calculating surgical wait times which resulted in:

- Health PEI using a start date for its surgical wait time calculations which differed from the national standard; and
- some surgeries being included in the wait time calculations that should not be, based on the national standards.

102. Health PEI adopted surgical wait time targets based on national standards, but reports provided to the Executive Leadership Team were calculated differently, although the information was available. There was also no documentation to support that the Executive Leadership Team monitored surgical wait times to identify factors causing wait times to be higher than targets, and took corrective action to address these factors when necessary.

103. In addition, there were issues noted with external reporting:

- The description on the provincial website on how surgical wait times are measured by Health PEI was incorrect.
- Although the 50<sup>th</sup> percentile wait time is calculated by a team at Health PEI, it is not publicly reported.
- Consult wait times were not tracked or reported.
- Current surgical wait time data was not reported to the public or referring physicians.
- Surgical wait time per surgeon was not reported.
- The Health PEI Board of Directors did not receive information on surgical wait times since October 2021.

104. The observations and recommendations included in this report should be considered and applied to all surgeries performed by Health PEI.

RECOMMENDATIONS*	MANAGEMENT RESPONSE
<p><b>Recommendation 37</b> Health PEI should have documented policies and procedures for calculating surgical wait times.</p>	<p>Health PEI agrees with this recommendation and aims to have policies and procedures created within 12 months.</p>
<p><b>Recommendation 41</b> Health PEI should calculate its surgical wait times using the start dates based on national standards.</p>	<p>Health PEI agrees with this recommendation and in collaboration with surgical service teams aims to introduce corrective actions immediately with the goal of completion within 12 months.</p>
<p><b>Recommendation 46</b> Health PEI should exclude the following surgeries from its surgical wait time calculations:</p> <ul style="list-style-type: none"> <li>• surgeries where the patient declined the first available surgery date; and</li> <li>• patients second eye cataract surgeries.</li> </ul>	<p>Health PEI agrees with this recommendation and will take corrective actions immediately with the goal of completion within 12 months.</p>
<p><b>Recommendation 60</b> Health PEI’s Executive Leadership Team should review surgical wait times using the 50<sup>th</sup> and 90<sup>th</sup> percentile calculations, on a quarterly basis.</p>	<p>Health PEI agrees with this recommendation and will take corrective actions immediately, recognizing the accuracy of this data will be improved once recommendation 41 and 46 are completed.</p>
<p><b>Recommendation 63</b> Health PEI’s Executive Leadership Team should monitor surgical wait times, identify the factors causing wait times to be higher than targets, and take corrective actions to address the issues identified. This process should be documented.</p>	<p>Health PEI agrees with this recommendation and has taken corrective actions to address the issues which includes the creation of a provincial director of surgical services and provincial department heads of surgery and anesthesia. Recruitment is active and ongoing to fill necessary roles.</p> <p>Health PEI would like to note several important factors:</p>



RECOMMENDATIONS*	MANAGEMENT RESPONSE
<p><b>Recommendation 63</b> (continued...)</p>	<ol style="list-style-type: none"> <li>1. During the period of study - April 2021 to June 2022, Health PEI was fully immersed in the COVID-19 response, first as it related to prevention of illness through testing, contact tracing and mass immunization and in November 2022 mounted a total system response to the Omicron wave. While ELT may not have documented discussion about wait times for these three selected elective surgeries, we were hyper-focused on a daily basis on minimizing disruption to all surgical procedures, knowing the devastating impacts for patients. Had Health PEI not paid attention to ensure the continuity of these services, the wait times could have been much longer.</li> <li>2. Health Care in PEI and Canada continues to suffer significant after-shocks due to the global pandemic and PEI’s unprecedented population growth. The Health Human Resources needed to address surgical wait times include anesthetists, surgeons, nurses, respiratory therapists, physiotherapists, pharmacists, diagnostics, booking clerks, to name a few. Health PEI and all partners involved continue to work tirelessly to secure these resources, which is consistent with other provinces. Because of the unprecedented health human resource shortages post pandemic and the fact that any expansion of surgical services will require the building of additional operating rooms, the obvious steps necessary to address wait times are not currently able to be addressed.</li> <li>3. Health PEI is responsible for ensuring continuity of health care services despite health human resource challenges. Health PEI must prioritize the allocation of scarce resources within the broader context of the population health needs. Surgical wait times are only one of the many priorities Health PEI has been directed to address. Within surgical wait times, there are many types of surgery or other treatments that are not measured by national benchmarks but may actually be of greater importance to protecting lives.</li> </ol>

RECOMMENDATIONS*	MANAGEMENT RESPONSE
<p><b>Recommendation 75</b> Health PEI should provide accurate information to the public on how surgical wait times are calculated.</p>	<p>Health PEI agrees with this recommendation and will take corrective actions immediately and aim for completion within 3 months.</p>
<p><b>Recommendation 78</b> Health PEI should publicly report both the 50<sup>th</sup> and 90<sup>th</sup> percentile surgical wait times.</p>	<p>Health PEI agrees with this recommendation and will take corrective actions immediately and aim for completion within 3 months. Health PEI acknowledges the accuracy of this data will be improved once recommendation 41 and 46 are completed.</p>
<p><b>Recommendation 83</b> Health PEI should provide current surgical wait time information on the Province’s website.</p>	<p>Health PEI agrees with this recommendation and will take corrective actions immediately and aim for completion within 3 months.</p>
<p><b>Recommendation 87</b> Health PEI should track and report consult wait times for surgical procedures to the general public and referring physicians.</p>	<p>Health PEI agrees with this recommendation and pending securing the necessary resources and working collaboratively with the surgical services team, will aim to complete this within 18-24 months.</p>
<p><b>Recommendation 90</b> Health PEI should provide current surgical wait time data to referring physicians.</p>	<p>Health PEI agrees with this recommendation and pending securing the necessary resources and working collaboratively with the surgical services team, will aim to complete this within 18-24 months.</p>
<p><b>Recommendation 94</b> Health PEI should make information on current wait times per surgeon readily available to referring physicians and the public.</p>	<p>Health PEI agrees with the recommendation that referring physicians and the public should know the wait times for the service. One way to achieve the other recommendations and to ensure equitable and efficient allocation of surgical services is through the introduction of a central intake process. This may lessen the need for wait times by surgeon.</p>
<p><b>Recommendation 99</b> Health PEI should provide the Board of Directors with surgical wait time data on a quarterly basis.</p>	<p>Health PEI agrees with this recommendation and will take corrective actions immediately and aim for completion within 4<sup>th</sup> quarter 2023/2024.</p>

\*Recommendation numbers refer to the paragraph numbers

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## AUDIT STANDARDS, OBJECTIVE AND SCOPE

### STANDARDS

This independent assurance report was prepared by the Office of the Auditor General of Prince Edward Island. Our responsibility was to provide objective information and independently conclude on whether Health PEI complies in all significant respects with the applicable criteria.

Work conducted for this audit was performed to a reasonable level of assurance in accordance with the Canadian Standards on Assurance Engagements (CSAE) 3001 - Direct Engagements set out by the Chartered Professional Accountants of Canada (CPA Canada) in the CPA Canada Handbook - Assurance.

The Office of the Auditor General of Prince Edward Island applies the Canadian Standard on Quality Management which requires our office to design, implement and operate a system of quality management, including documented policies and procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements.

In conducting the audit work, we have complied with independence and other ethical requirements of the Rules of Professional Conduct of the Chartered Professional Accountants of Prince Edward Island and the Code of Conduct of the Office of the Auditor General of Prince Edward Island. Both the Rules of Professional Conduct and our Office's Code of Conduct are founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality, and professional behavior.

### OBJECTIVE

The objective of the audit was to assess whether Health PEI has systems and processes for tracking, managing, and reporting on patients waiting for the following surgeries:

- cataract;
- knee replacement; and
- hip replacement.

We developed criteria, primarily from best practice, to assess whether Health PEI had met the objective. These criteria are listed in **Appendix C**.

In accordance with our regular audit process, we obtained the following from management:

- confirmations of management’s responsibility for the subject;
- acknowledgment of the suitability of the criteria used in the audit;
- confirmation that all known information that has been requested, or that could affect the findings or audit conclusion, has been provided; and
- confirmation that the audit report is factually accurate.

#### SCOPE AND APPROACH

The scope of our audit included analysis and testing of records for the period April 1, 2021 to June 30, 2022. We examined documentation outside of that period as necessary.

Our approach included:

- interviews and correspondence with Health PEI management, staff, and Board of Directors;
- review and analysis of surgical wait times reports and supporting documentation;
- selected a sample of 29 surgeries, out of a total of 1142, completed between April 1, 2021 to September 30, 2021;
- analysis and detailed testing of surgical wait times to patient files;
- review of the Board of Directors and Executive Leadership team meeting minutes; and
- review of annual reports, strategic plans, management plans and supporting documentation.

We did not assess wait times for partial hip replacements.

#### DATE OF REPORT

It is important to note that our observations and conclusions relate only to the management practices of Health PEI and consequently, our comments and conclusions do not pertain to the practices or performance of any third parties.

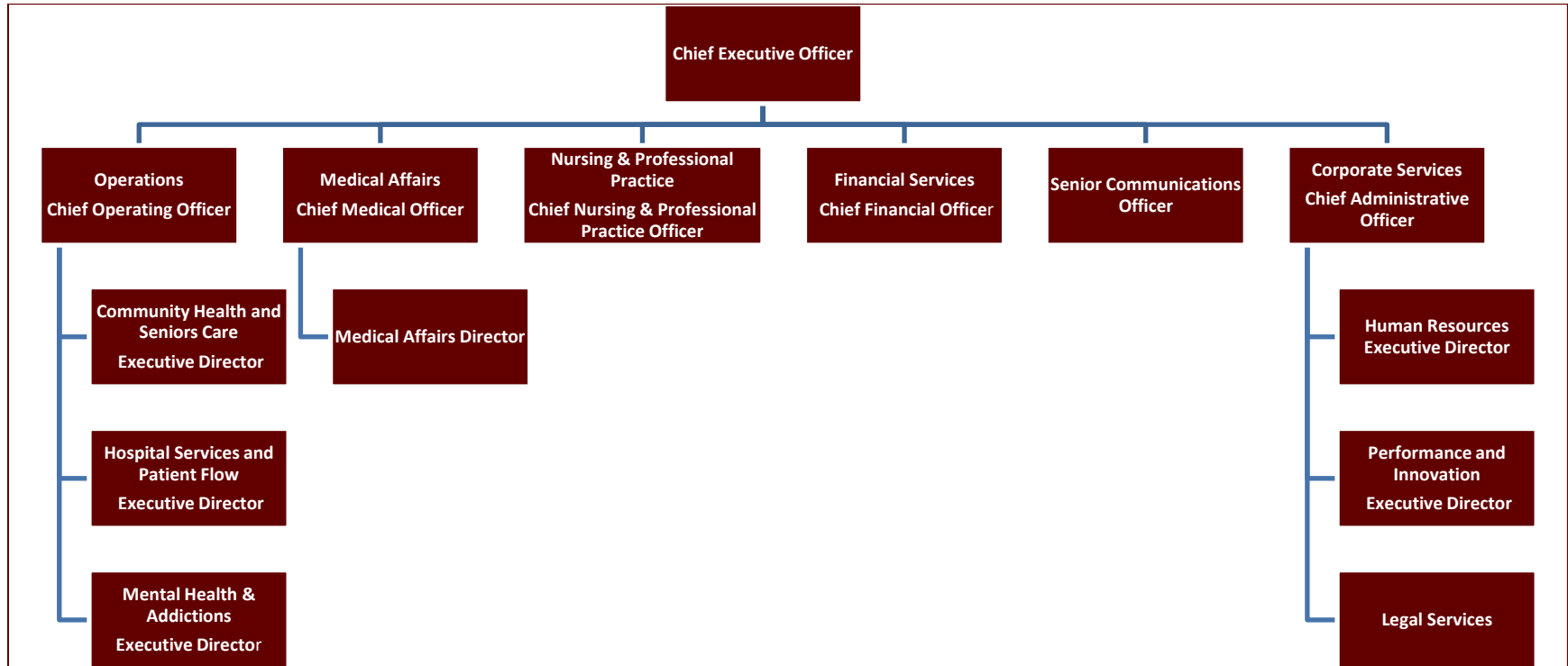
We obtained sufficient and appropriate audit evidence on which to base our conclusions on December 5, 2023, in Charlottetown Prince Edward Island.

#### AUDIT TEAM

Auditor General:	Darren Noonan
Assistant Auditors General:	Jennifer Bowness Sheri Griffin
Director:	Sarah Taylor
Manager:	Jenna Dominey

AUDIT CRITERIA
Health PEI's surgery wait times data is calculated appropriately and consistently.
Health PEI monitors surgical wait times and has processes to implement improvements as required.
Health PEI reports key wait time information to stakeholders.

HEALTH PEI  
LEADERSHIP STRUCTURE  
ORGANIZATION CHART  
APRIL 2023

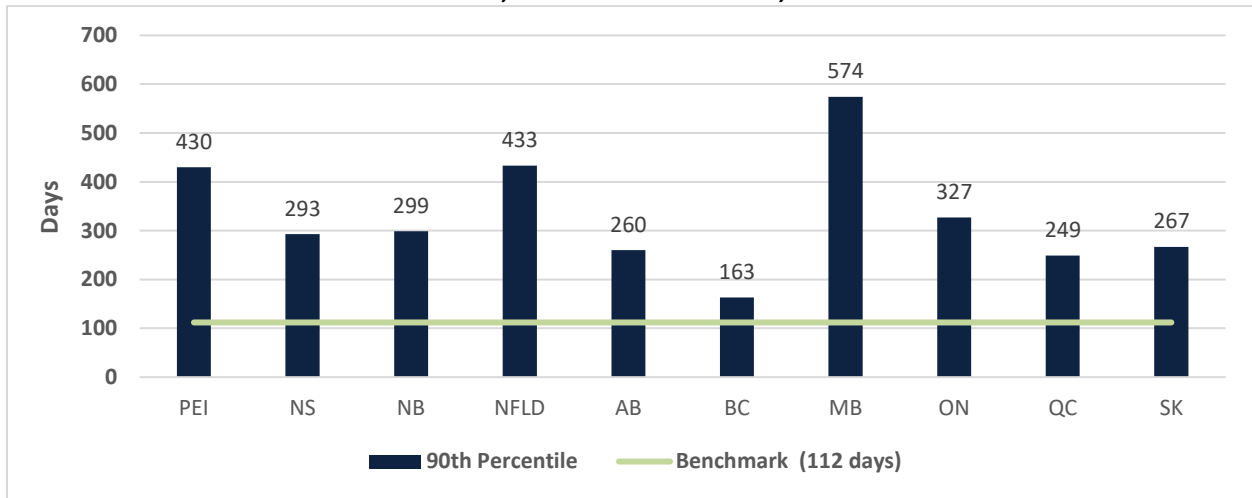


Source: Adapted from Health PEI Leadership Structure Organization Chart

SURGICAL WAIT TIMES USING 90<sup>TH</sup> PERCENTILE FOR CATARACT, KNEE AND HIP REPLACEMENT SURGERIES

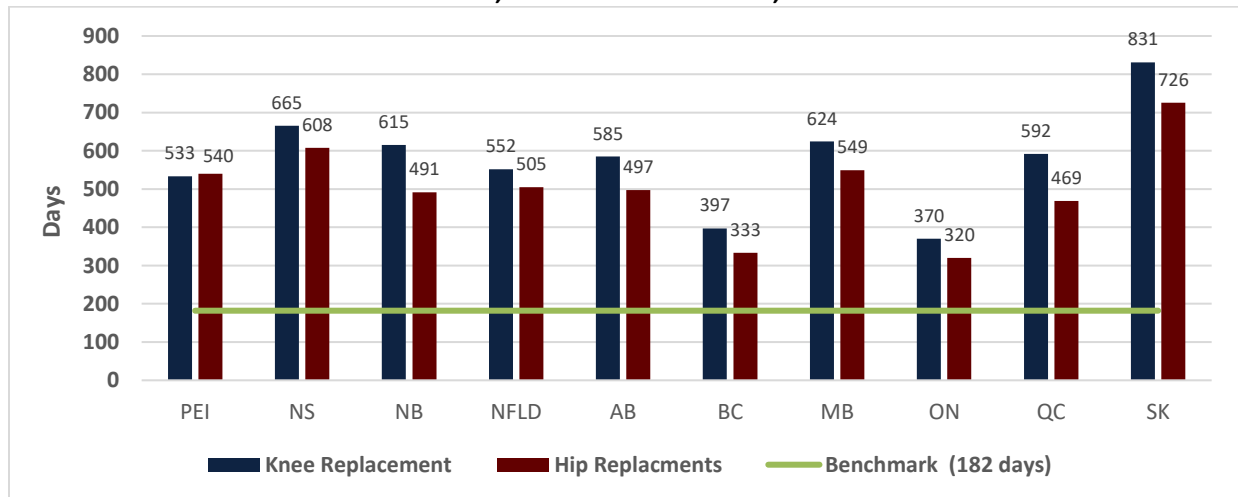
The following charts are similar to **Exhibit 3** and **Exhibit 4** in the body of the report, except these charts are using the 90<sup>th</sup> percentile, rather than the 50<sup>th</sup> percentile.

**CHART 1**  
**CANADIAN PROVINCES**  
**90<sup>TH</sup> PERCENTILE SURGICAL WAIT TIME**  
**CATARACT SURGERY**  
**APRIL 1, 2022 - SEPTEMBER 30, 2022**



Source: 2022 Canadian Institute for Health Information Wait Times for Priority Procedures in Canada Report.

**CHART 2**  
**CANADIAN PROVINCES**  
**90<sup>TH</sup> PERCENTILE SURGICAL WAIT TIME**  
**KNEE AND HIP REPLACEMENT SURGERY**  
**APRIL 1, 2022 - SEPTEMBER 30, 2022**

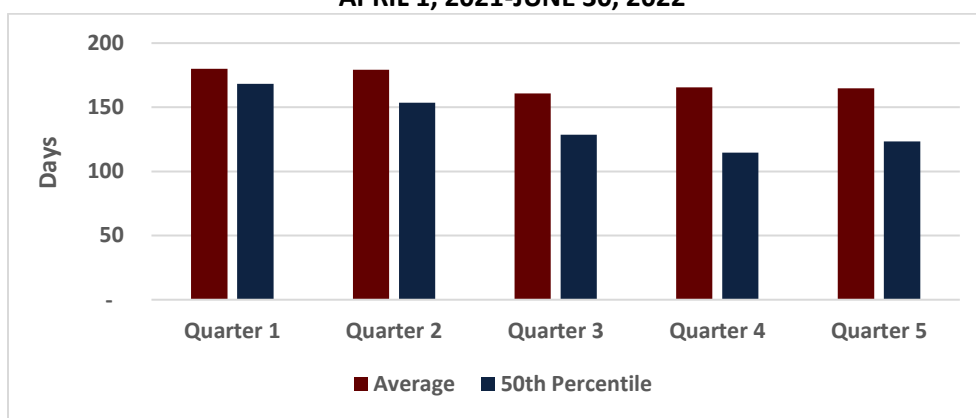


Source: 2022 Canadian Institute for Health Information Wait Times for Priority Procedures in Canada Report.

CATARACT AND KNEE REPLACEMENT SURGERIES - AVERAGE VERSUS 50<sup>TH</sup> PERCENTILE

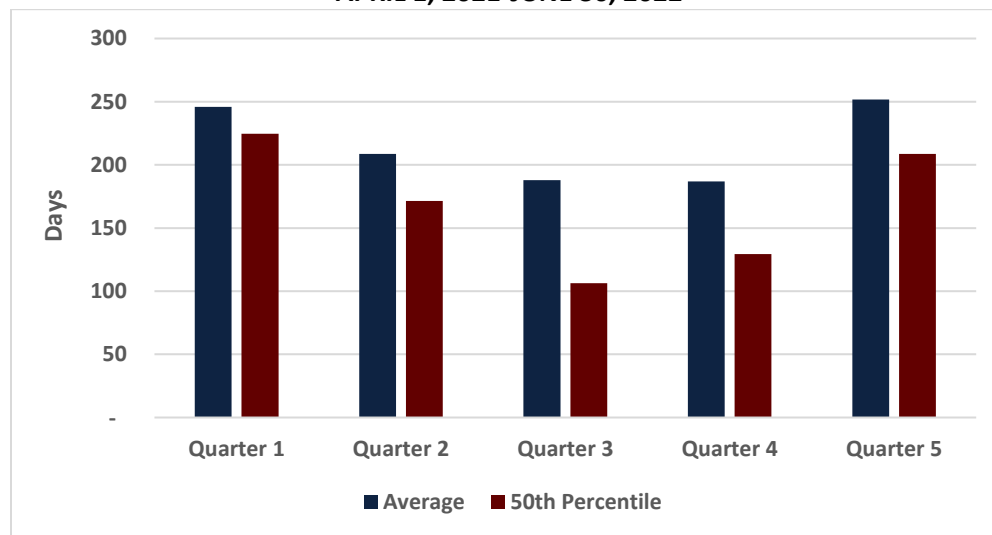
As shown in the following charts the average wait time was higher than the 50<sup>th</sup> percentile calculation for cataract and knee replacements during April 1, 2021 - June 30, 2022. Also, the chart shows that there can be significant differences between the 50<sup>th</sup> percentile and the average surgical wait time.

**CHART 3**  
**QUARTERLY SURGICAL WAIT TIMES**  
**CATARACT**  
**AVERAGE versus 50<sup>TH</sup> PERCENTILE**  
**APRIL 1, 2021-JUNE 30, 2022**



Source – Derived from quarterly reports received from Health PEI’s Health Information Unit Team.

**CHART 4**  
**QUARTERLY SURGICAL WAIT TIMES**  
**KNEE REPLACEMENT**  
**AVERAGE versus 50<sup>TH</sup> PERCENTILE**  
**APRIL 1, 2021-JUNE 30, 2022**



Source – Derived from quarterly reports received from Health PEI’s Health Information Unit Team.



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