

## **Executive Summary: Alberta's Waiting Times for Specialty Care**

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## Abstract

For the healthcare stakeholders in Alberta, would using the mobile application increase accessibility and transparency to the waiting time in specialty care? To address the question, we propose a theoretical model of mobile application usage to foresee the waiting times of specialty care in Alberta. Special attention is paid to the Canadians who are waiting to see their healthcare providers, but do not have access to see the transparent data of the waiting list. We aim to secure transparency of the waiting list and enable stakeholders to access their waiting times per mobile application usage. Central to the research question, our research assesses the timeline of the stakeholders from getting a referral to a specialist to receive their intervention. In this context, we aim to leverage the existing data on waiting time toward the mobile application. The “Alberta Waiting Times Reporting” [AWTR] website will be used as a supplemental database and the “My Health Records” [MHR] application operated by EPIC, which is the electrical health record system, will be used as an integration technology in our healthcare digital solution. In the application, the users will be able to visibly foresee the specialist’s information based on the location, specialty, waiting time, and personalized referral by tapping on the waiting time function.

## Background

In Canada, there has been a continuous increase in the waiting times for care across all medical-related services (Moir & Barua, 2022). During research, we found that waiting times in specialty care, specifically in Alberta, are on an upward trend and negatively affect the stakeholder's health outcome. Hence, we deemed waiting times a suitable healthcare concern to address by ensuring transparency to its stakeholders and reducing the health disparities incurred. Although the AWTR website has waiting times for specialty services, it is not often accurate as it is reliant on information provided by facilities and physicians which is frequently delayed (Government of Alberta, n.d.). Hence, to improve accuracy and up-to-date information an application called EPIC, an electronic health record, with a variety of system integration abilities and has a large data pull to gather information from (Chishtie *et al.* 2023). We summarized that EPIC acting as an integration software can be used to process personalized referrals and envision waiting times in specialty care. Furthermore, collating information about referrals will create a large sample size to analyze wait times for each type of specialty care referral received. Moreover, the AWTR website is not advertised and is strange to the indigenes of Alberta as compared to EPIC platforms such as MHR and My Chart, which are stand-alone as well as integrated applications, which are well-utilized mobile platforms amongst Albertans. Thus, we decided to augment the function of the mobile application, MHR, which is prominent amongst the stakeholders in a bid to increase accessibility to waiting times and referral updates.

## Design Criteria and Strategy Description

In researching the solution to accessibility and transparency in waiting time, there are a few strategies that we want in our mobile application. First, we want to add the tap box called ‘Waiting list’ on my health record application. After users log in to the pre-existing application ‘My Chart’, they will have access to the waiting time for the specialists through their mobile application (Image 1). For example, if the patient wants to see the expected waiting time for their knee arthroscopy, they will log in to the My Chart application, and click the Waiting list tap box. Second, based on the AWTR, we want the users to be able to select required procedures, regions,

and urgency so that they can see the specific waiting times from a certain specialist (Images 2, 3, 4, & 5). Users will see basic information about specialists, such as clinic addresses, and their mean waiting times. So, the patient mentioned above will select the knee, click on the knee arthroscopy, select the health care region, and select the urgency. That will guide the patient to the expected waiting time of a specialist. In this context, the health care administrator will constantly update the expected waiting times of procedures to maintain the transparency of using this mobile application.

Also, the app will state the expected waiting times, for example, ‘Your surgery waiting time will be approximately eleven and half months’ (Image 5). Currently, in the AWTR, some of the waiting times are not clearly stated such as “50% received procedures within 51 weeks” (Government of Alberta, n.d.), so it is hard for the user to expect their waiting time. With a clear statement of expected waiting times, we expect to see healthcare providers and patients build trustworthy relationships by relieving some uncertainty stemming from waiting times. In addition, we want the users to see their referral in the application so that they will be aware of whether they were accepted by the specialist before starting to wait for the procedure (Image 6). The users will select the range of years that they want to see the referral based on the date the referral was sent. The copy of the fax referral will be uploaded to the application by the healthcare administrator, and the patients will see the date when it was received, accepted, and/or denied. In this case, the patient will know how far their referral has been processed on time, thereby increasing their trust in the healthcare system.

### **Project Status Update**

The integration of the extra tab button in the EPIC platform, AHR, is still in the collation of gathering functional and non-functional requirement stage, refer to the requirements in Appendix A. Based on the user story, functional and non-functional requirements were assessed and adjusted. We have modified a few wordings in the application and added a new function of ‘My referral’ to make this application more beneficial than just looking at the AWTR webpage. These requirements will be given to the engineering students to start the coding process to create a prototype of the intended functional update to the application, My Chart.

### **Conclusion**

As part of the health care workers, we have developed our project based on the user point of view where we struggled with accessibility in real life. We acknowledge that the waiting time whether it is in an emergency center or specialty care, plays an important role in healthcare stakeholders' quality of life and interpersonal relationships between stakeholders and their medical home. Therefore, we aim to develop and augment the mobile application for the stakeholders who are waiting for specialty care. It is hoped to be more beneficial than just using the web browser since the application will include more clear statements of waiting time and users will be able to see their referral get processed in real-time display.

## Appendix C

### User Story

As a patient – I want to see the expected waiting times of my specialty care and the information of the surgeon, clinic, and region, hence, reducing the mental and physical stress related to the uncertainty surrounding my care by easily clicking on a tap in the mobile app.

As a healthcare provider- I want to be able to build excellent interpersonal and trustworthy relationships with my patients by providing them with a resource such as a mobile application, where they can see the expected waiting times regardless of their location.

As an Administrator- I want to be able to generate a source that can provide the waiting times of specialty care with increased accessibility and transparency to the healthcare stakeholders so that it reduces operating costs.

What most concerns me about the waiting time is the effect on the mental and physical health of the patient, increasing exacerbation of their medical condition, and health outcome of the patient post-intervention.

But I feel good that the province of Alberta provides approximate waiting times on the website for the healthcare stakeholders within the province. Also, the province of Alberta provides healthcare mobile applications that have been already used for the people who live in the province so that they can access their healthcare information more easily.

### References

- Chishtie, J., Sapiro, N., Wiebe, N., Rabatach, L., Lorenzetti, D., Leung, A. A., Rabi, D., Quan, H., & Eastwood, C. A. (2023). Use of Epic Electronic Health Record System for Health Care Research: Scoping Review. *Journal of medical Internet research*, 25, e51003. <https://doi.org/10.2196/51003>
- Government of Alberta (n.d.). Alberta waiting times reporting. <http://waittimes.alberta.ca/AWTRInfoPage.jsp?pageID=11>
- Milinovich, A., & Kattan, M. W. (2018). Extracting and utilizing electronic health data from Epic for research. *Annals of translational medicine*, 6(3), 42. <https://doi.org/10.21037/atm.2018.01.13>
- Moir, M. & Barua, B., 2022. *Waiting Your Turn: Wait Times for Health Care in Canada, 2022 Report*, Fraser Institute. Canada. Retrieved from <https://canadacommons.ca/artifacts/3336916/waiting-your-turn/4135763/> on 01 Feb 2024. CID: 20.500.12592/xf7xb0.
- Wireframe operated by [miro]
- Lee, N. (n.d.). *Nurs 654*. miro.com. [https://miro.com/app/board/uXjVNtBJCAs=?share\\_link\\_id=145269193096](https://miro.com/app/board/uXjVNtBJCAs=?share_link_id=145269193096)