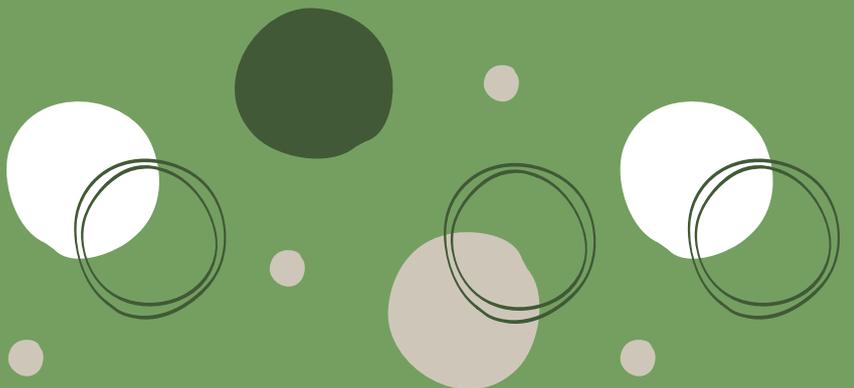


CASE STUDY

eHealth
ONTARIO



OLIS - ONTARIO LABORATORY
INFORMATION SYSTEMS



BACKGROUND

eHealth Ontario, an agency of the Ontario Government, was tasked with creating a digital information system for the recording and sharing of medical laboratory results for the provincial healthcare system.

PROBLEM

The initial interface was created with a focus on data integrity, security and back-end functionality. While these are critical aspects of any application, what resulted was a system that was difficult to navigate, non-intuitive and carried a heavy cognitive load.

END USERS

Approximately 2 million clinicians across Ontario would be using the application on a daily basis, from lab techs, to physicians and nurses at varying stages of their careers and with varying educational backgrounds. Most of these users are working in a fast-paced environment (hospital ERs) with a multitude of distractions and very little time to focus.

They currently utilize various in-house solutions that are not amalgamated throughout LHNs but express concerns about adapting a new solution due to security of medical data and privacy risks associated with online platforms. They are also hesitant to adapt new software due to the costs of training staff.

TASKS

- view patient lab results
- enter patient lab results
- share results with other clinicians



GOALS

- streamline the process of accessing lab results
- observe trends in patient history
- maintain current system - ability to integrate application with current system



BARRIERS

- fast-paced environments, no time to learn new software
- concerned with patient confidentiality/not comfortable with new technology
- training costs



INFLUENCES

- current information systems
- Microsoft Office applications
- Electronic Health Record (EHR) Software
- Medscape



APPLICATION OBJECTIVES

- reduce cognitive load
- create strong signifiers
- maintain spacial and informational consistency
- prioritize and organize menu options (removing proximity of destructive and confirmation actions)
- minimize long-string identifiers

■ SOLUTION

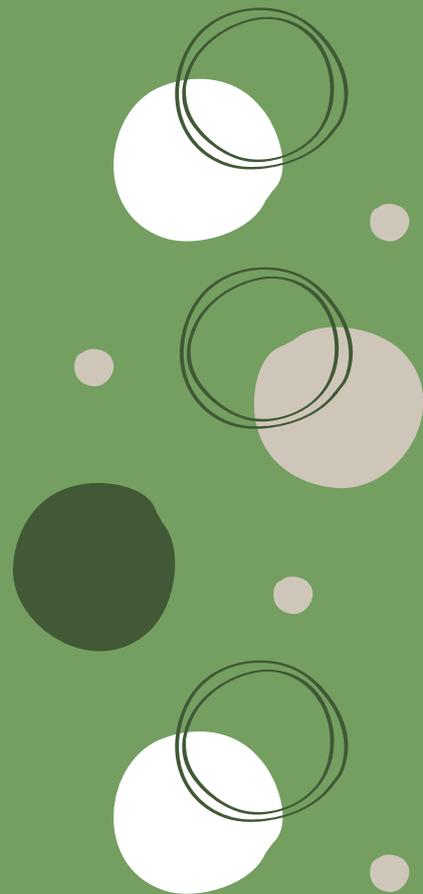
Through the use of beta testing, surveys and face-to-face interviews I was able to gather feedback from a select group of clinicians who served as our focus group.

I provided "clear language" interpretations of the data security measures put in place by our systems engineers, thus alleviating concerns about data breaches and patient confidentiality and managing client expectation.

Using an iterative design process, I created UI elements and workflows based on this feedback and conducted A/B usability testing to determine what elements of the interface were creating bottlenecks and adjust accordingly.

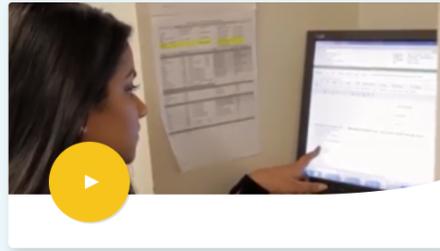
Collecting data on their current application use as well as their use of the portal, allowed me to create mental models and gain insights into their level of technical ability and determine how much instruction would be needed.

Prior to launch I designed computer-based learning modules which minimized the need for onsite training. These learning modules were successfully used to train approximately 2 million clinicians across the province.



Registered nurses using digital health records to enhance patient care

Sabrina Shiwpershad explains how having real-time access to patients' digital health records helps provide better care.



Lab Results

For health care organizations

The Ontario Laboratories Information System (OLIS) gives authorized health care providers access to lab test orders and results from hospitals, community labs and public health labs. As patients move between hospitals, family physicians, home care and long-term care settings, OLIS makes viewing patients' current and past test results easier and enables treatment decisions to be made at the point-of-care.

Features

Capable of storing more than 68,000 unique types of test results across the following categories:



Hematology



Pathology



Chemistry



Microbiology



Blood Bank

