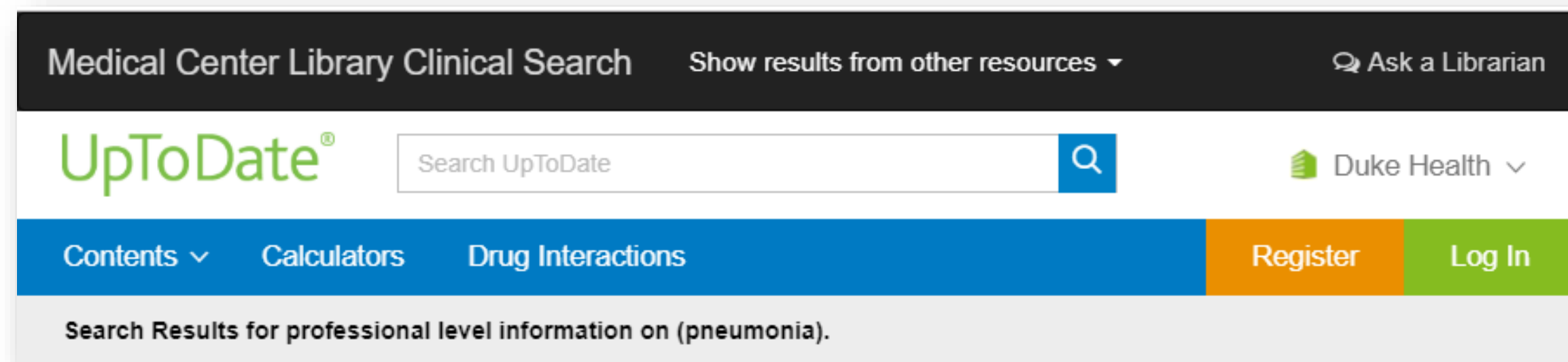


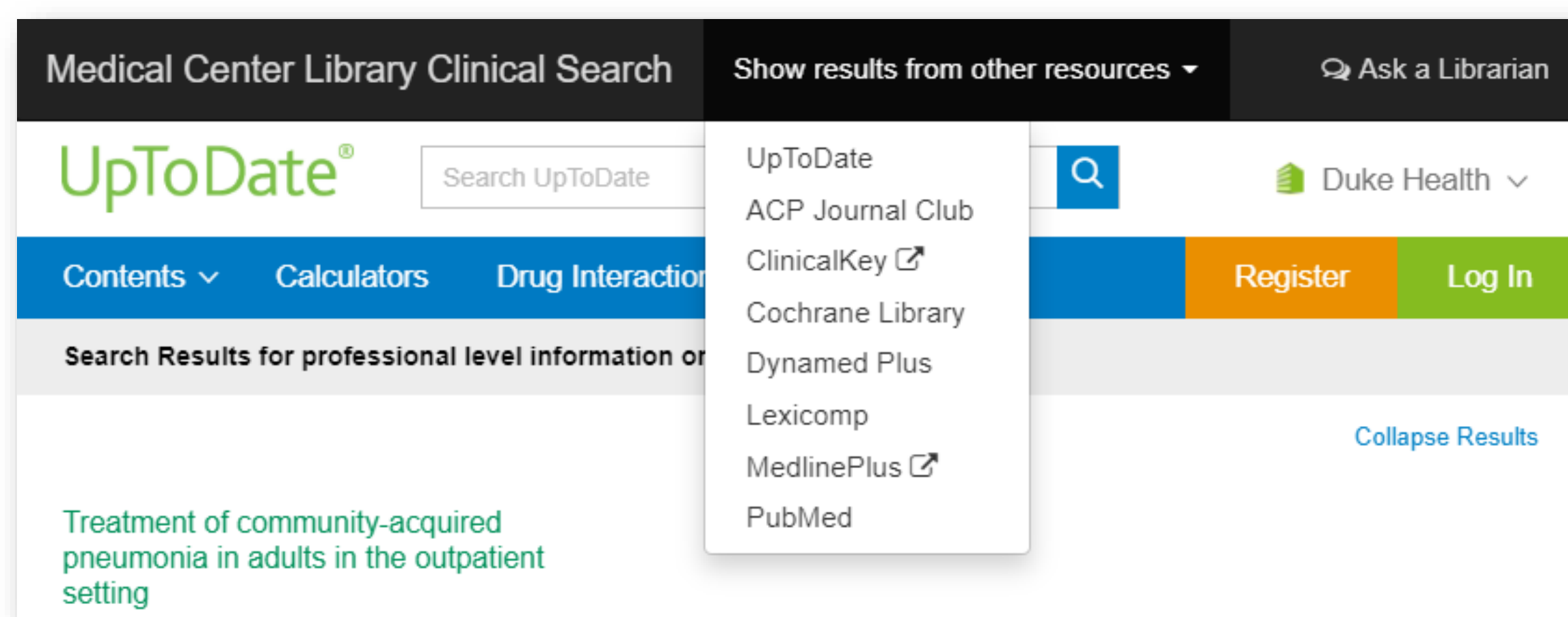
BACKGROUND

Infobuttons are context-specific links from one information system, such as an electronic health record (EHR) to some other resource, such as library resources. Over five years ago, the Library integrated infobuttons into the health system's EHR.

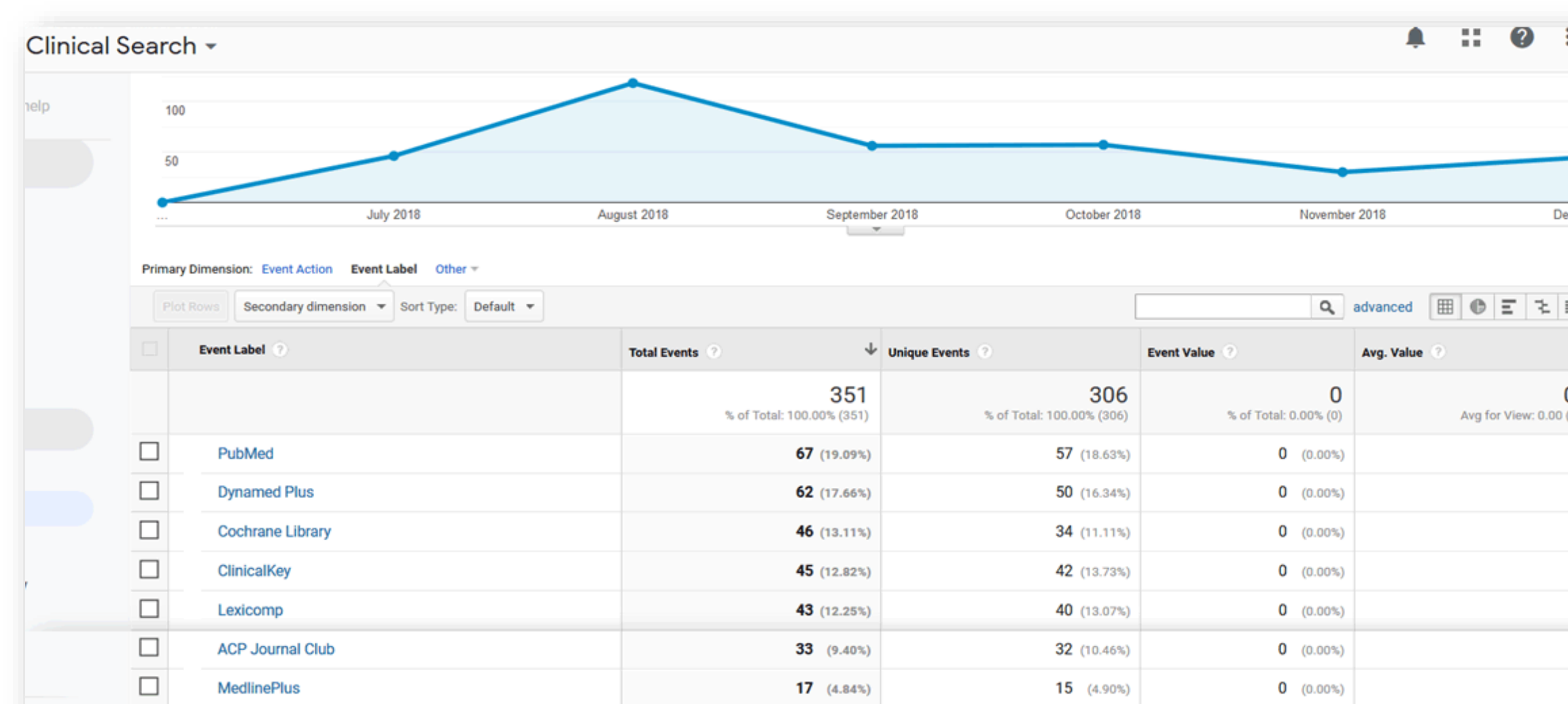
The infobuttons primarily link out to UpToDate. The black search bar at the top represents the clinical search tool:



A custom configuration enabled providers to access six additional information resources and library services through a small clinical search navigation bar. When a user clicks any of those information resources, the same search is run in that resource.



While UpToDate is used more than 350,000 times per year in the EHR, other resources have minimal use.



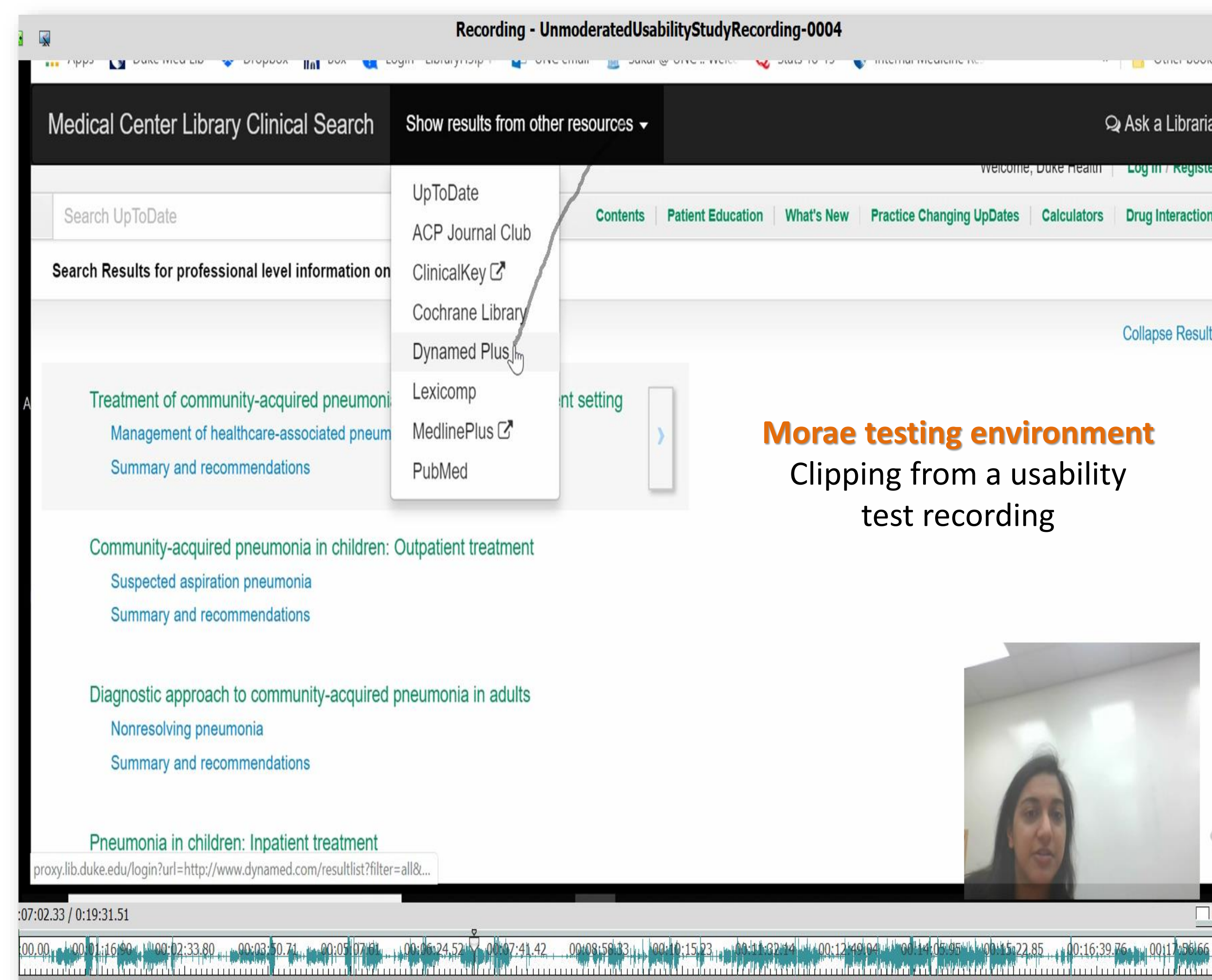
The team hypothesized that the providers were potentially unaware of the other resources and services provided.

METHODS

- Library staff partnered with a team from the health system that included a hospitalist/EHR champion and two MD Clinical Informatics fellows.
- Team developed a plan to redesign the results display of the clinical search navigation bar based on the analysis of infobutton tool usage data.
- Redesign included changing the clinical search tool behavior, labels and naming, and colors.

USABILITY TESTING TEAM

- Developed a usability testing script.
- Used Morae usability software to build out the tasks from the script in order to record and observe user interactions.
- Conducted the testing by walking through the tasks and taking notes.
- Took approximately 15 minutes to complete tasks.
- Recorded and later analyzed usability sessions.
- Conducted four usability tests as well as a group discussion with the Medical Library Advisory Council.



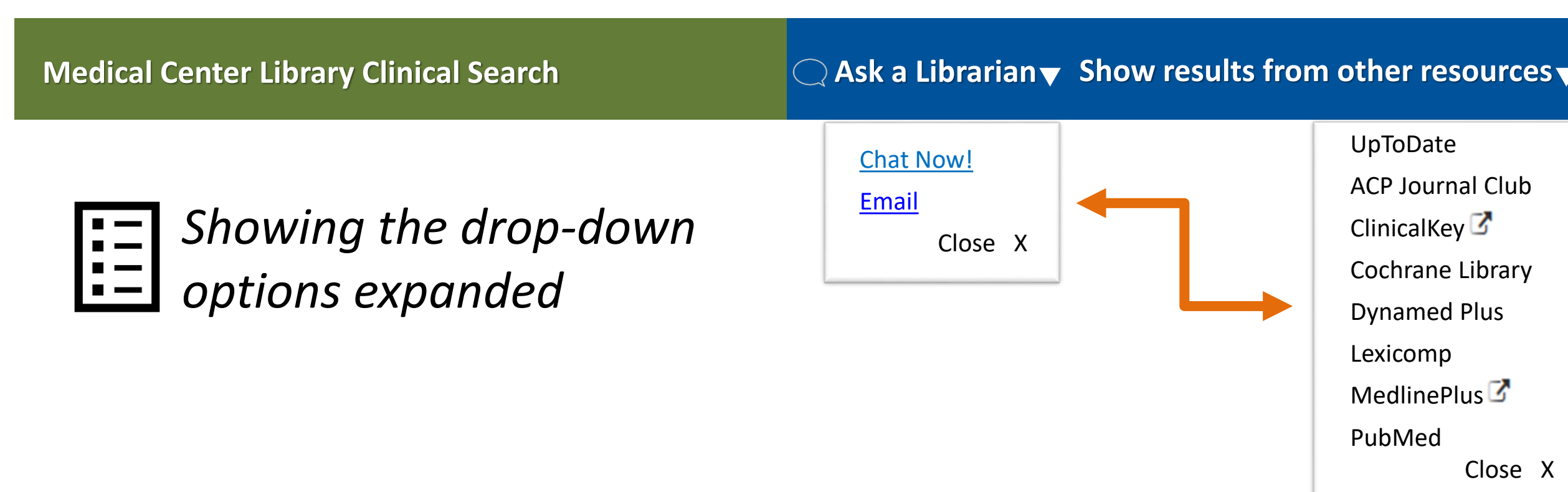
NEW INTERFACE MOCK-UPS

- Color changed to increase visibility of the clinical search tool. Two color options were offered.
- Option created to list the resources already opened once a user entered UpToDate, the default tool.

Option 1: Dark Blue



Option 2: Light Blue



RESULTS

Infobutton Usability Results

- Users did not notice the clinical search tool, confirming the data in Google Analytics.
- Test subjects accurately guessed what types of resources were available in the menu of options once it was brought to their attention.
- Users accurately assumed that the “Ask a Librarian” link would allow them to chat with a librarian.
- Some users mentioned that while they would use the chat service, it would be challenging to instant message with a librarian via the EHR due to a lack of time.
- Some test subjects expressed that the need to “dig deep” into the literature would have to be done later in the day, outside of the EHR.
- Some users expressed concern that they might be bothering the librarian by chatting with them or emailing them.

Mock-up Preferences

- **Light blue was the more popular choice.** Most felt the dark blue was too similar to the current clinical search tool.
- Most liked the option to have the **resources box open with the option to close.**
- Most liked the **option to both chat with or email the librarian.** It was suggested we add a text message option; the library currently offers this but it was not on the mock-up.
- It was suggested to better **brand the clinical search tool to include “Duke,”** which had been previously missing.

NEXT STEPS

- Make the recommended changes to the existing clinical search tool bar.
- Examine the Google Analytics after implementing the changes in order to explore trends.
- Conduct additional usability testing in six months.

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