

**SEER\*DMS Change Control Advisory Board (CCAB) Users Group**  
**Teleconference Summary**  
**May 14, 2020**  
**3:00 to 4:30 p.m. EDT**

Representatives from NCI, IMS, the Scientific Consulting Group, Inc. (SCG), and 15 cancer registries participated in the SEER\*DMS Users Group conference call on May 14, 2020. Participants included:

**REGISTRIES:**

Alaska  
Central California  
Cherokee Nation  
Connecticut  
Detroit  
Georgia  
Hawaii  
Idaho  
Iowa  
Kentucky  
Los Angeles  
Louisiana  
New York  
Seattle  
Utah

**NCI:** Marina Matatova

**IMS:** Suzanne Adams, Linda Coyle, Chuck May, Nicki Schussler

**SCG:** Kathy Brown-Huamani, rapporteur

**Action Items**

- Registries should contact IMS about any major issues with the new interface before July 1, 2020.
- Linda agreed to discuss the status of requests for changes to the new interface with the Iowa registry if needed.
- IMS will develop a comprehensive list of requests for changes with confidential information removed for registries to view in Squish.
- Linda will be reaching out to the registries to determine who would be interested in participating in the next round of usability testing. Registries should expect to see a Squish Issue with more details about the usability testing in late May 2020.
- After reviewing the Squish Issue, registry staff should contact Linda about their interest in the next round of usability testing and how they would like to participate.
- IMS will create a Squish issue with instructions for dealing with the new NAACCR XML for registries that receive non-standard items.
- Other registries that have questions or think that they also might be receiving non-standard items should reach out to IMS.
- IMS will submit a support issue regarding data dictionary files for registries that receive non-standard items. IMS will notify all registries when the support issue is available.
- Registries should inform IMS about any tools they are using outside of SEER\*DMS that work well for report writing.

***Update on Usability Testing and Interface Testing***

Usability (UX) testing of SEER\*DMS was implemented approximately 4 years ago to guide improvements to the system, particularly the user interface. The goal of UX testing and the resulting interface redesign is to make SEER\*DMS easier to use for all registries without requiring them to change their processes. All registries can now access and test the new interface.

***Summary of Registry Feedback***

The new interface received mixed reviews from users when it was first deployed in January or February of 2020. Long-time users of the old SEER\*DMS interface found the transition to the new interface difficult and identified more problems with the new interface. Some concerns that were raised included:

- Reduced brightness because the new interface uses a more monotone color scheme.
- Increased brightness due to a primarily white background and the removal of color scheme options
- Excessive amount of space on the screen (e.g., between lines on a page). The new interface was designed to improve readability, so the space required to display the same data items increased substantially.
- Field locations. Many users requested adjustments to field locations in the new interface.
- Limited user preferences to control sections that are open and closed.
- The pathology screening interface, where significant changes were made. One noticeable change that was made allows the user to see more text at one time but creates some other problems for users.
- The alerts interfering with the view.

***Next Steps to Address Issues Identified by Registries***

IMS has not addressed all user concerns at this point, but has:

- Implemented options that allow users to choose between a high contrast screen or one with reduced brightness.
- Lessened the amount of space used on the screen.
- Expanded options for opening sections so that users can click on the title of the section or use the chevron.
- Added an option to show all sections.
- Corrected problems with some popups reported by users.
- Revised the pathology screening interface so that more text is displayed on the screen. Text now is organized in columns so text lines do not extend beyond 70 characters in length, thus adhering to readability principles.
- Moved alerts to the bottom of the screen.
- Fixed reported bugs.

IMS will continue to work through user comments and make appropriate corrections, particularly to field locations. Some of the more extensive requests will be reviewed with NCI. IMS might revisit some of the requested changes once users have had more time to work with the new interface.

### ***Tentative Timeline for Switching to the New User Interface***

The implementation of the new interface across registries has been delayed because of COVID, but IMS plans to continue moving the process forward. IMS scheduled the new user interface to be displayed upon login beginning June 1, 2020. The magic wand still will appear, however, to allow users to switch back to the old interface. The goal for displaying the new interface upon login is to encourage users to try the new interface for at least part of their workday. IMS will implement most of the outstanding requests for changes in June. On July 1, 2020, the old user interface no longer will be available. Some adjustments likely still will be needed and made after this date.

The next round of usability testing will begin this summer and will be based on the feedback received from the registries regarding the new interface.

### ***Next Steps for the Usability Project***

Linda asked participants about participating in upcoming usability research for SEER\*DMS to be conducted by the Nielsen Norman Group (NNG). Some testing might take place in person. In-person usability testing already was done at the Seattle and Georgia registries, and remote testing was done at the Utah registry. Registry staff also might be asked to participate in interviews as part of the SEER\*DMS usability testing. Participation is voluntary and will be completely confidential. Linda emphasized that usability testing does not evaluate the user but, rather, the program design.

Testing can be conducted remotely via Webcast after participants sign consent agreements. Testing sessions will be facilitated by IMS. Remote sessions might involve tracking or capture of the participants' screens during testing to allow NNG to review results.

Once it has been determined which registries will participate in the next round of usability testing and how, IMS will investigate the protocols and agreements required to conduct this testing. Testing will begin after the necessary agreements are in place.

### ***Discussion***

Marina asked if any registries would have difficulty adopting the new interface by July 1. Bobbi Matt of the Iowa Cancer Registry asked about a method for keeping all of the registries updated regarding requests for changes and actions taken by IMS. Informing all registries about all requests for changes would help avoid redundant requests and provide the most effective and timely input. Participants suggested developing a comprehensive list of requests for changes with confidential information removed for registries to view in in Squish. Marina encouraged registry participants to go ahead and submit concerns and requests for changes even if another registry already has identified the same issue.

A participant asked if IMS had considered adding a dark mode to the background to display text. This change was discussed during usability testing, but user experience research shows that dark mode is not ideal for consuming large amounts of information. Marina encouraged users to reach out to IMS and NCI if they are having difficulty working with the white background.

## **Brief Update on Natural Language Processing (NLP) Projects**

Within 2 weeks of this call, SEER\*DMS will include APIs that allow users to employ NLP to automatically read the text in pathology reports and code laterality, histology, and behavior. The API also will generate a confidence value to inform the registrars about the degree of certainty regarding each code generated by the API.

### ***Review of APIs that Are Being Developed***

The NLP project currently focuses on developing reportability and recurrence algorithms. The reportability algorithm will be designed to reflect reportability when the record arrives at the registry, not within SEER\*DMS.

### ***Changes to SEER\*DMS to Support Testing of API Integration***

IMS has been working on changes to the autocoding API. When the API is implemented in SEER\*DMS, not all reports will be autocoded. Some still will need manual review.

The NCI and Department of Energy (DoE) are working on this project and want to ensure that the autocoding API is integrated into the SEER\*DMS workflow appropriately. The DoE has developed a protocol to evaluate the most effective way to use the API in SEER\*DMS. Registries that are testing the API will complete Annotation tasks, which involve manually coding pathology reports and comparing to the values generated by the API for the coded fields. If the manually coded values differ from values generated by the API, a second registrar will review and determine which code is most appropriate.

The API will support annotation by allowing the registrar to code the item and identify the specific text that supports the coding decision. Annotation tasks will appear in the work list during the testing. Once testing is complete at the four registries, IMS will discuss with the registries the value of continuing to highlight the text used in API coding decisions.

## **Announcements and Future Projects**

### ***NAACCR XML***

The NAACCR volume II specifications will not include a fixed column layout in 2021. SEER\*DMS can import and extract from XML files. All of the XML imports are created by SEER\*Abs.

If the vendor submits non-standard items (such as state-requestor items), IMS will need an XML dictionary before January 2021. IMS can provide technical support and provide recommendations for creating the dictionary. Registries that receive non-standard items (state requested items other than those in SEER\*Abs) include Alaska, Connecticut, Idaho, Louisiana, Massachusetts, Minnesota, New York, and Utah. These registries should reach out to their vendors. IMS will create a Squish issue with instructions for each of these registries. Other registries that have questions or think that they also might be receiving non-standard items should reach out to IMS.

### ***Discussion***

A participant asked about the best approach for creating an XML dictionary. The process is relatively simple, and some examples are available online. IMS can provide sample dictionary files for the items that the registries are processing. IMS will submit a support issue and notify all registries when it is available.

### ***Review of Follow Back Processes***

Linda thanked the registries for submitting the documents describing their follow back processes. The documents revealed a high level of consistency across registries. IMS will use these documents to generate the various use cases for follow back modules. IMS then will prioritize for functionality and will develop multiple modules to support the follow back process. The development process is expected to take approximately a year.

### ***Dashboards and Report Writing***

NCI and IMS are reviewing both open source and proprietary technical solutions to improve the dashboard and to provide report writing tools. Marina encouraged registries to inform IMS about any tools they are using outside of SEER\*DMS that work well for report writing.