9.27.2018

2018 Face-to-Face

SEER*DMS

SEER*DMS Usability Initiatives

Background

SEER.cancer.gov

2015-2016

- In 2015-2016, the program initiated an external review of SEER*DMS to ensure that the system is optimally positioned for evolving needs
- 5 health informatics experts were contracted to perform the assessment
- 4 registries were part of the initial review
- 9 key categories of recommendations were delivered in a final report to NCI
  - Governance & Communication
  - Usability Evaluation
  - Enhanced Linkages
  - Consolidation
  - Case Upload Portal
  - Integrated Report Writer
  - NLP, Automation
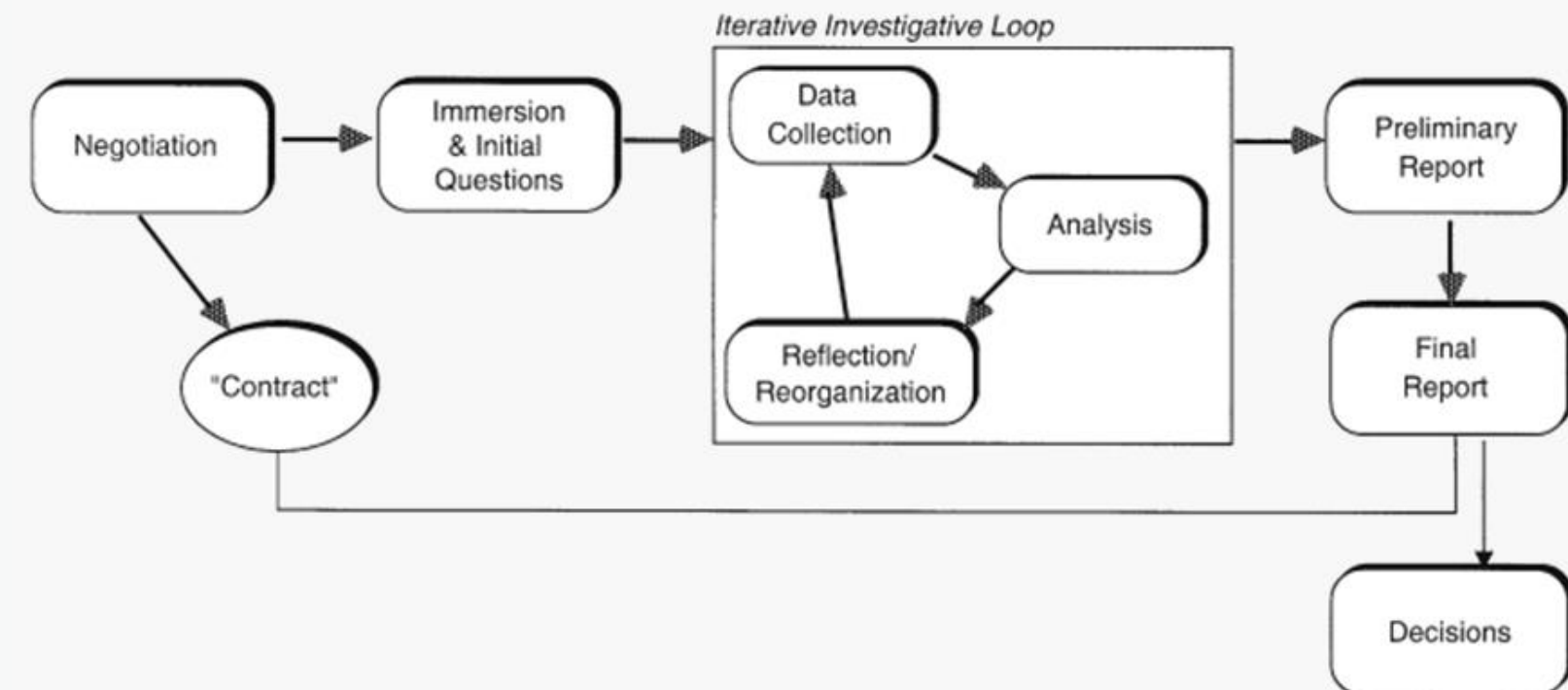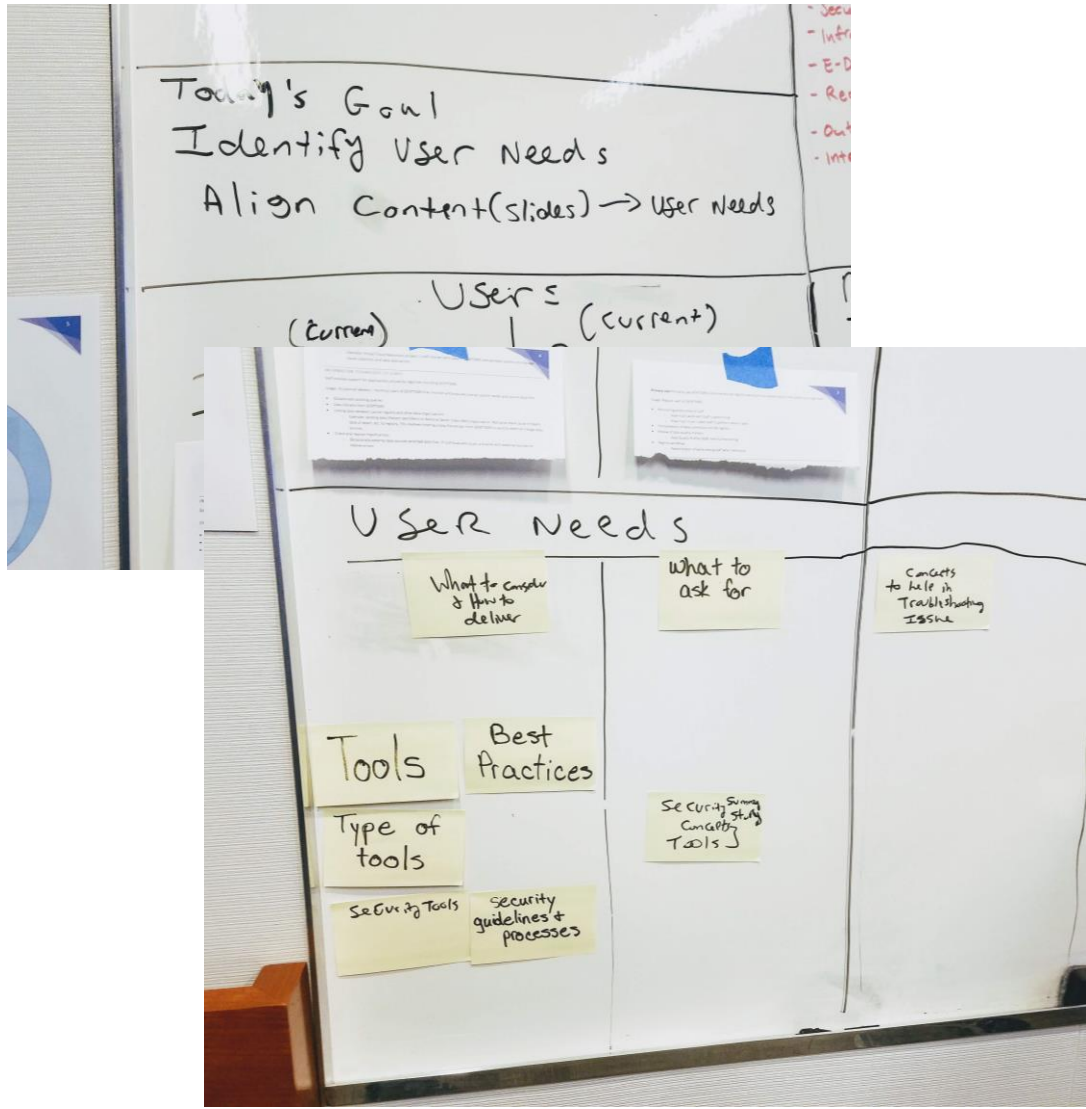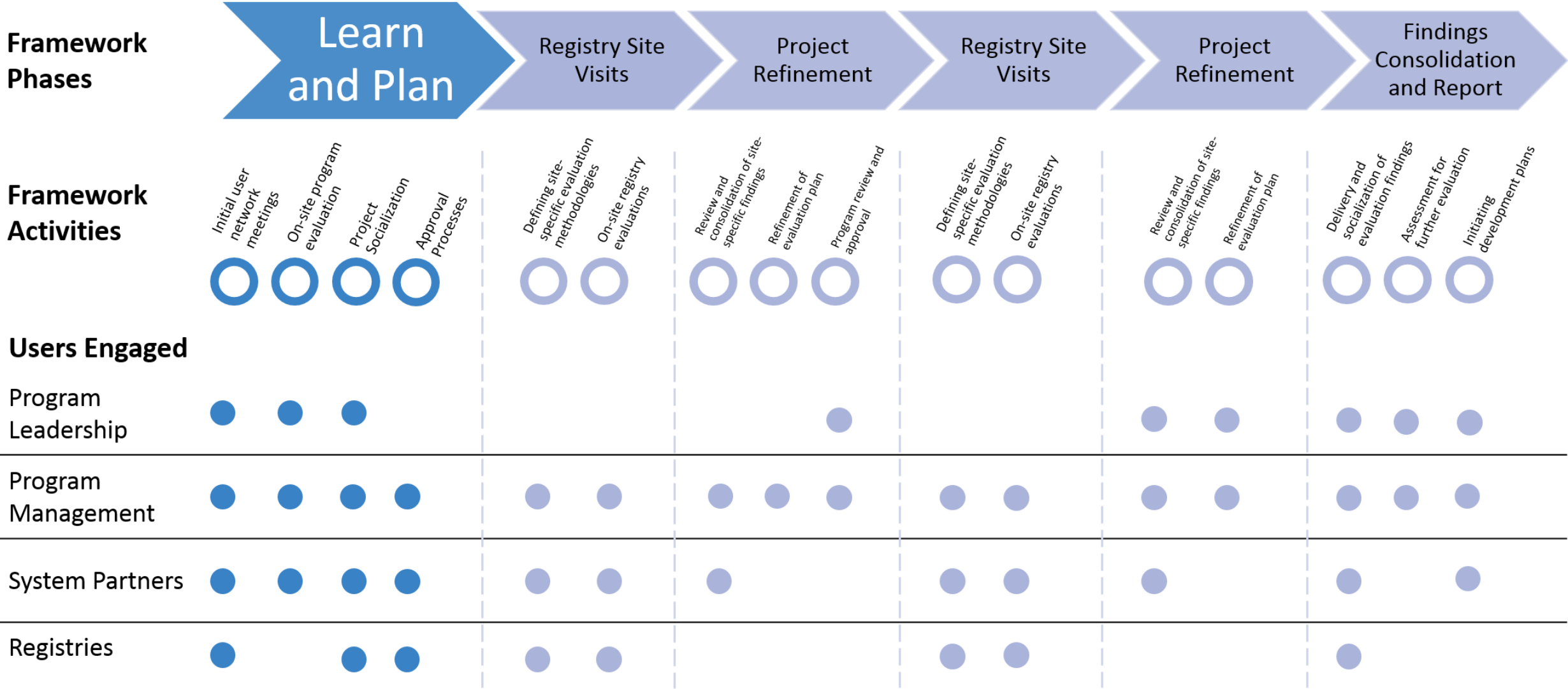 - Security
  - System Architecture

FIGURE 2.4. Specific anatomy of subjectivist studies.

Source: Friedman, C. and Wyatt, J. *Evaluation Methods in Biomedical Informatics*
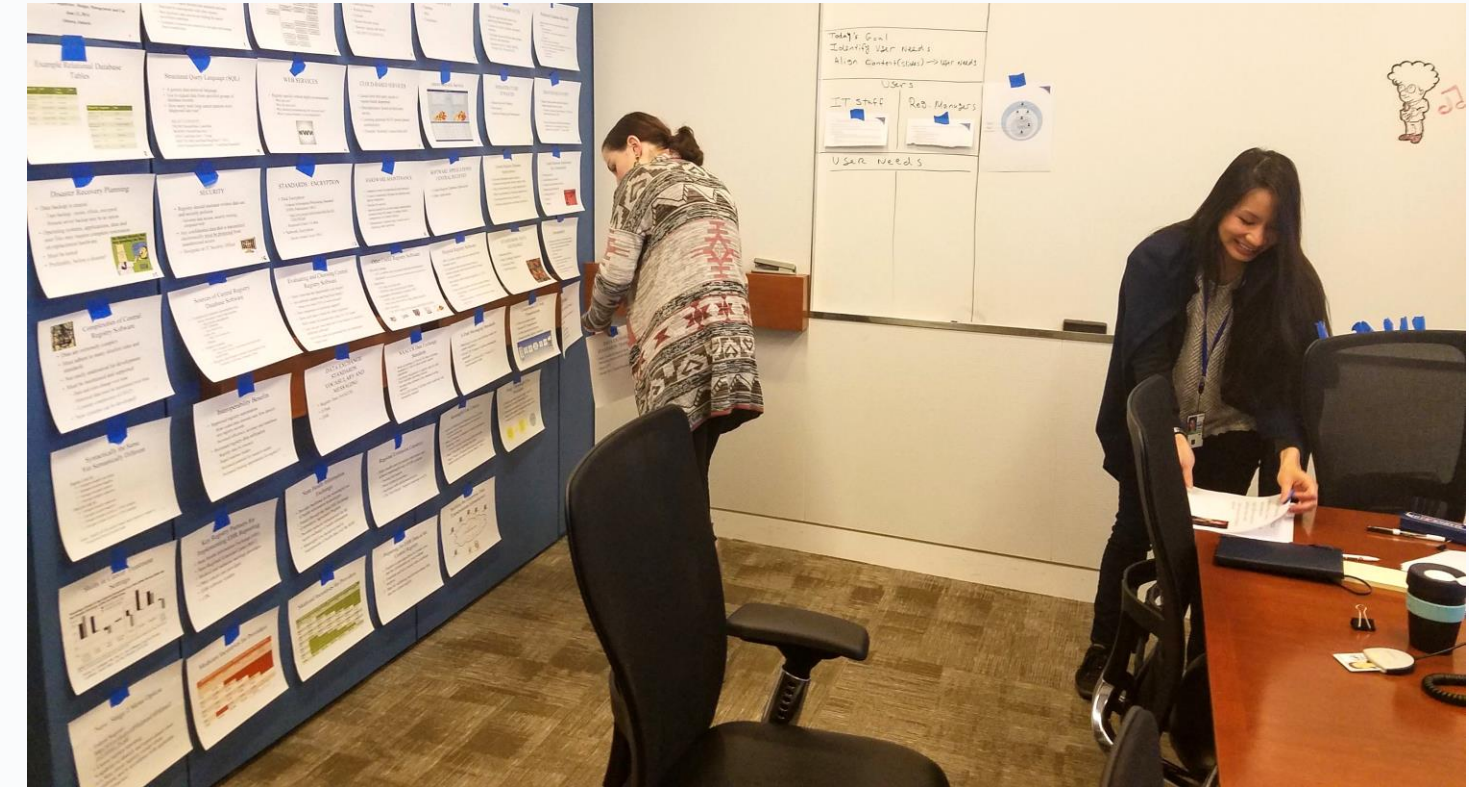
Usability Framework

- The complexity of both the system and the network of registry users required the development of usability framework.
- The framework was meant to ensure full user engagement during usability assessment and to minimize disruptions during the evaluation and subsequent system changes

Framework Phases

Learn and Plan | Registry Site Visits | Project Refinement | Registry Site Visits | Project Refinement | Findings Consolidation and Report

Framework Activities

Initial user network meetings | On-site program evaluation | Project Socialization | Approval Processes | Defining site-specific evaluation methodologies | On-site registry evaluations | Review and consolidation of site-specific findings | Refinement of evaluation plan | Program review and approval | Defining site-specific evaluation methodologies | On-site registry evaluations | Review and consolidation of site-specific findings | Refinement of evaluation plan | Delivery and socialization of evaluation findings | Assessment for further evaluation | Initiating development plans

Users Engaged

	Program Leadership	Program Management	System Partners	Registries

Usability Experts

2017

- Starting in the spring of 2017 SRP spent over 4 months assessing various approaches and methodologies for usability evaluations including a literature review

- In the summer of 2017, Nielsen Norman Group (NN/g) signed on to conduct a comprehensive usability evaluation on SEER*DMS

- NN/g are the leading experts in user experience and design. Employed by leaders across industries such as Google, Samsung, Forbes, NASA's Jet Propulsion Laboratory

- **The primary goal of the evaluation is to enhance efficiency and quality.** Some areas of focus are the patient set editor, task management, pathology screening

2018

Defining Scope and Direction

"Scope, it's not just mouthwash" – Linda Coyle

On-site Stakeholder Interviews

NN/g conducted 2 days of interviews with NCI to assess program needs, define project scope and define registry characteristics needed for initial studies

Scope

- Concentrate primarily on CTR users and secondarily on registry managers
- Focus on Consolidation, Path Screening, Visual editing
- Optimize the current feature load

Baseline Registry Characteristics for Initial Visits

- Has SEER funding
- Performs a high volume of consolidation and path screening, as Path Screening and Consolidation screens were identified to have the most immediate needs
- Actively evaluating or using a new data source
- Did not participate in the previous review process (include at least one)
- Current SEER*DMS users, taking into consideration active or possible impending migration
- Population size and staff size are average or above
- Sufficient bandwidth to allow for participation during the evaluation timeline
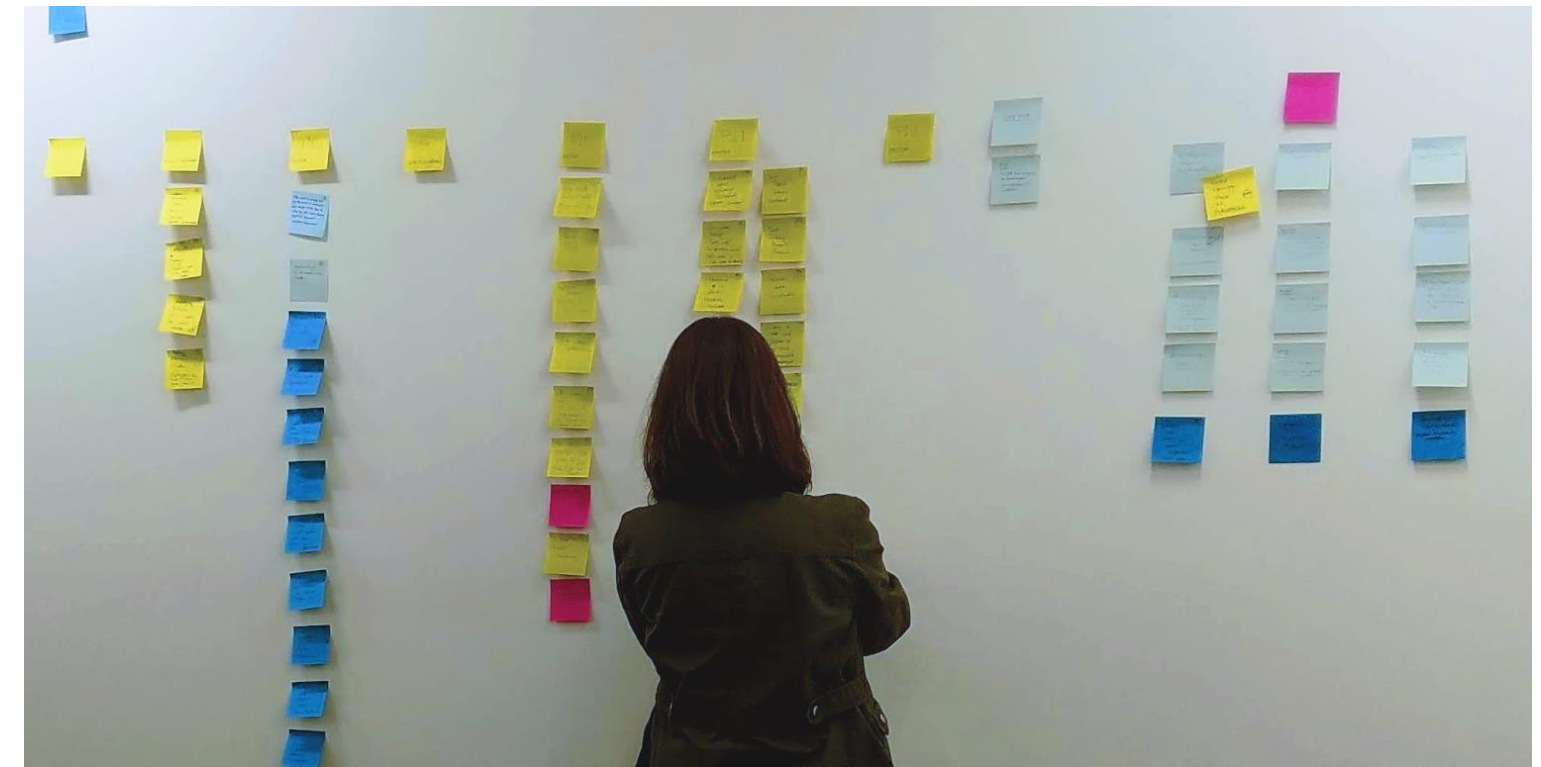- Reports unusual but important usage patterns in SEER*DMS

	Path Screening in DMS	Consolidation	Alternate Interface or Usability	Part of original review	DMS migration
Alaska Native	No	No	No	No	No
Cherokee Nation	No	No	No	No	No
Connecticut	Yes	Yes	No	No	No
Detroit	Yes	Yes	No	No	No
Georgia	No	Yes	No	Yes	No
California	No	Yes	No	No	Yes
Hawaii	Yes	Yes	No	No	No
Iowa	No	Yes	No	Yes	No
Kentucky	No	Yes	No	No	Yes
Louisiana	Yes	Yes	No	Yes	No
New York	Yes	Yes	No	No	No
New Jersey	Yes	Yes	No	No	No
New Mexico	Yes	Yes	No	No	No
Seattle	Not in DMS	Yes	Yes	Yes	No
Utah	Yes	Yes	No	No	No

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Current Status

Today

- Leadership review – September
- Registry presentation – September

- Defining immediate and longer-term changes – In-progress
- Scope and prioritize – Upcoming
- Develop iterative process of small prototyping, testing, and deployment – Upcoming
- Continue to communicate and gather input from registry community – In-progress

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Thank you

Danke

Gracias

спасибо

Obrigado

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