VENTERA

CMS QNP
BASELINE USER TESTING FINDINGS REPORT

Ventera Corporation
1881 Campus Commons Drive Suite 350
Reston, VA 20191

What's Inside

QUALITYNET (QNP)
BACKGROUND INFORMATION

User Test at a Glance

Facilitator: Sara Neel
Observers: Karen Tisinger
Timeframe: June 25-29, 2018

Purpose

The purpose of baseline usability testing on the existing QualityNet.org (QNP) is to compile baseline metrics that the redesigned QNP can be compared against. First impression and task-based moderated usability testing will help to directly identify pain points in the existing site that can be improved upon in the redesign. Quantitative baseline usability metrics will help to validate the redesign of QNP.

Method

For this round of usability testing aiming at evaluating the existing QualityNet.org, we captured both quantitative and qualitative data from users sessions.

Methods

Method	Description	Data Captured
Background Survey	Users that did not answer background questions in a prior user study were asked to fill out an OptimalWorkshop survey with a series of questions pertaining to their use of technology and QualityNet.org. The survey was skipped for repeat participants that had already answered background questions.	Qualitative: User quotes and notes
First Impression Test	Users were presented with a webpage for 5 seconds and then asked to complete a short survey.	Quantitative: Likert scale results Qualitative: Survey responses on first impressions and what they remember
First-Click Test	Users were given tasks to complete on the existing QualityNet site. Their first-click was tracked and evaluated for accuracy.	Quantitative: Pass/fail; success rate; heatmap of click Qualitative: User quotes and observations; observable user mouse control and click behavior
Moderated Remote Usability Test	Users were given tasks to complete on the existing QualityNet site and instructed to think out loud as they performed the tasks.	Quantitative: Task completion; difficulty rating Qualitative: User quotes and observations; observable user mouse control and click behavior

Users

Users: End-users across multiple provider types
Summary: 5 total users

User	Internal / External	Quality Program(s)	Job Title
User 1	External	Hospitals - Inpatient Hospitals - Outpatient PPS-Exempt Cancer Hospitals	Quality/Risk Manager
User 2	External	Hospitals - Inpatient	Data Compliance Manager
User 3	Internal	Hospitals - Inpatient	Project Manager for HSAG Support Contract
User 4	External	End-Stage Renal Disease Facility	Business Analyst
User 5	External	Hospitals – Inpatient Hospitals - Outpatient	Quality Assurance of Data

QUALITYNET (QNP)
FINDINGS AT A GLANCE

Tasks Overview

Task Number	Task	First-Click Accuracy Pass / Fail	Task Completion Good / Average / Poor
	News Tasks (Difficulty Rating: 3.4)		
1	Find the news article containing information about the release of the October 2016 Hospital Compare Preview Reports.	60% / 40%	0% / 60% / 40%
2	Find Ambulatory Surgical Center news articles.	20% / 80%	0% / 0% / 100%
	Submission Deadlines Tasks (Difficulty Rating: 3.1)		
3	You are participating in the Hospital Inpatient Quality Reporting Program. Find the program's submission deadlines.	80% / 20%	40% / 0% / 60%
4	You are participating in the PPS-Exempt Cancer Hospital Quality Reporting Program. Find the program's submission deadlines.	60% / 40%	60% / 0% / 40%
5	You are participating in the Hospital Outpatient Quality Reporting Program. Find the program's submission deadlines.	100% / 0%	60% / 40% / 0%
6	You are participating in the Ambulatory Surgical Centers Quality Reporting Program. Find the program's submission deadlines.	80% / 20%	40% / 40% / 20%

Tasks Overview Continued

| Task Number	Task	First-Click Accuracy Pass / Fail	Task Completion Good / Average / Poor
	Specifications Documents Tasks (Difficulty Rating: 2.5)		
7	You are participating in the ESRD Quality Reporting Program. Find the measure specifications documents.	80% / 20%	20% / 20% / 60%
8	You are participating in the Hospital Outpatient Quality Reporting Program. Find the measure specifications documents.	100% / 0%	100% / 0% / 0%
9	You are participating in the Inpatient Psychiatric Facilities Quality Reporting Program. Find the measure specifications documents.	100% / 0%	80% / 20% / 0%
	Measures Tasks (Difficulty Rating: 3.2)		
10	You are participating in the Ambulatory Surgical Centers Quality Reporting Program. Find the program's complete list of 2019 measures.	100% / 0%	80% / 20% / 0%
11	You are participating in the Hospital Inpatient Quality Reporting Program. Find the program's complete list of 2019 measures.	60% / 40%	0% / 40% / 60%
12	You are participating in the PPS-Exempt Cancer Hospitals Quality Reporting Program. Find the program's complete list of 2019 measures.	100% / 0%	100% / 0% / 0%

Tasks Overview Continued

Task Number	Task	First-Click Accuracy Pass / Fail	Task Completion Good / Average / Poor
	CART Tasks (Difficulty Rating: 1.8)		
13	You are participating in the Hospital Inpatient Quality Reporting Program. Download CART for 2017.	100% / 0%	20% / 60% / 20%
14	You are participating in the Hospital Outpatient Quality Reporting Program. Download CART for 2017.	100% / 0%	80% / 20% / 0%
	Hospital Compare Tasks (Difficulty Rating: 2.5)		
15	You are participating in the Hospital Inpatient Quality Reporting Program. Find information about the Hospital Compare Preview Periods.	80% / 20%	0% / 40% / 60%
16	You are participating in the PPS-Exempt Cancer Hospitals Quality Reporting Program. Find information about the Hospital Compare Preview Periods.	100% / 0%	40% / 20% / 40%
17	You are participating in the Inpatient Psychiatric Facilities Quality Reporting Program. Find information about the Hospital Compare Preview Periods.	100% / 0%	100% / 0% / 0%

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QUALITYNET (QNP)
FIRST IMPRESSION TESTING

First Impression Testing Scores

Rating	
1	Strongly Disagree
2	Disagree
3	Neutral
4	Agree
5	Strongly Agree
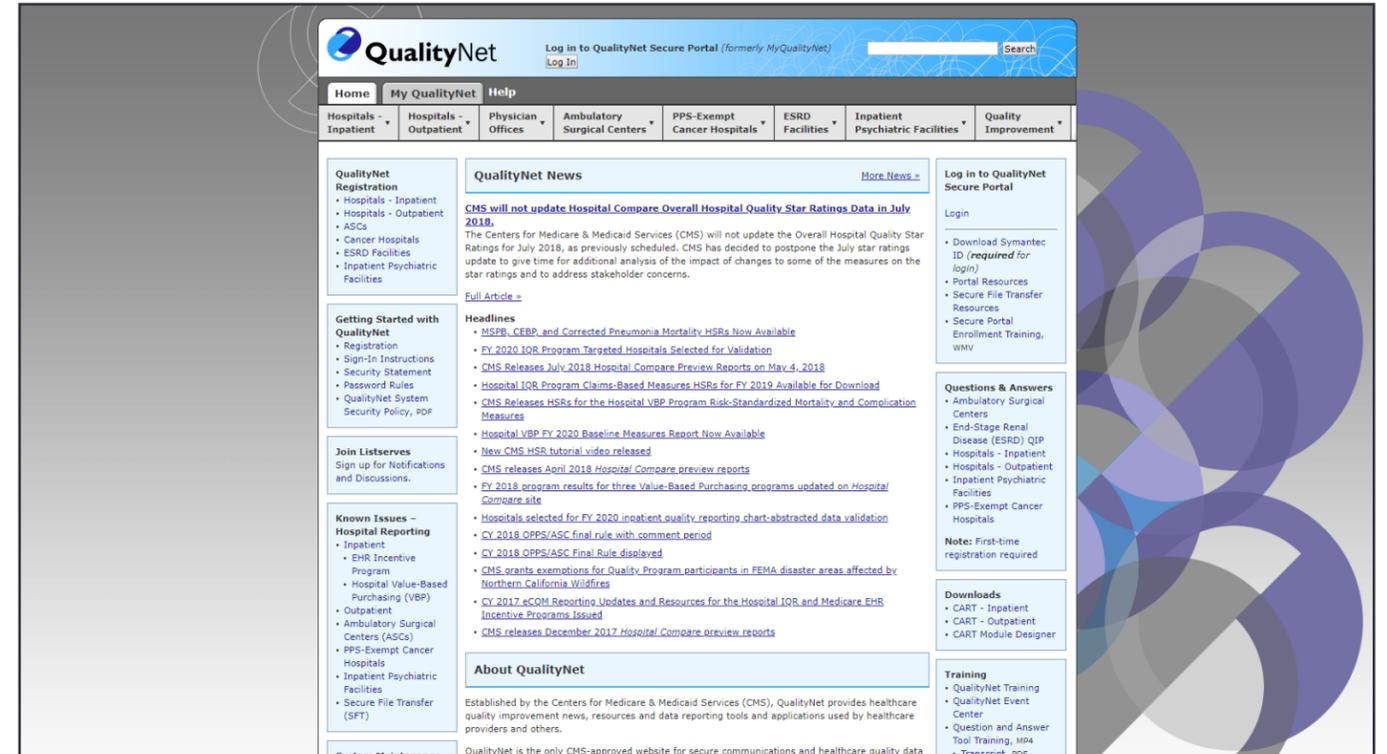
User	The webpage makes a positive first impression	The webpage looks easy to use and navigate	The webpage has a nice look and feel
User 1	3	2	3
User 2	3	2	2
User 3	2	1	1
User 4	4	4	4
User 5	2	1	2
Average Rating	**2.8**	**2**	**2.4**

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First Impression Testing Quotes

"Crowded, a lot of information."

"Nothing captured my eye. A lot of print, very busy and compact."

"Relatively busy webpage."

"Very busy. A lot of information."

"Homepage is a little busy - a lot of information. Have to hover over everything and scroll down to look for stuff."
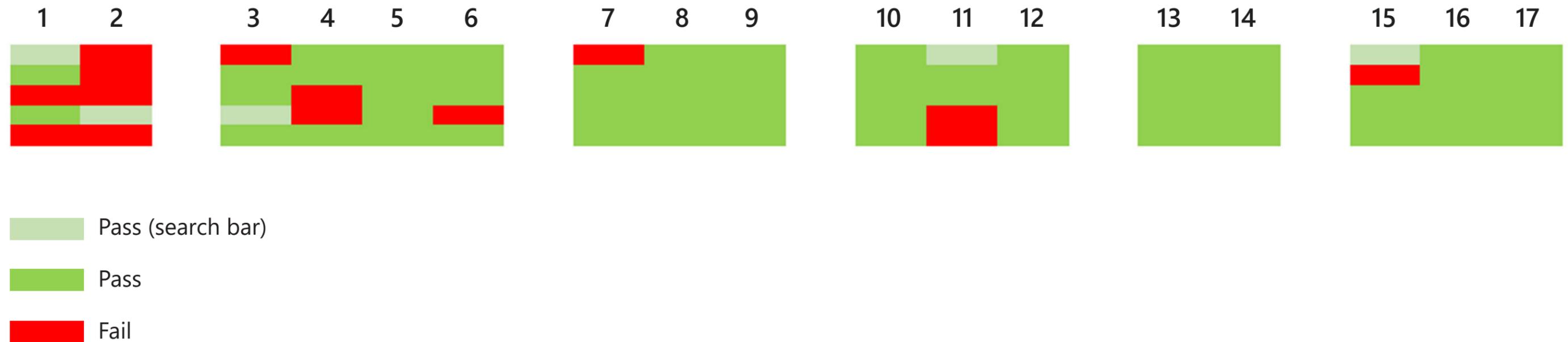
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First Impression Word Clouds

Word clouds are visual representations of the most commonly used words and phrases. Words are displayed with a text size proportional to their frequency, i.e. frequently used words are given a larger text size.

What are your first impressions of the webpage?

What do you remember about the webpage?

QUALITYNET (QNP)
FIRST-CLICK TESTING

First-Click Accuracy

The below diagram is a visual representation of the First-Click Test, displaying a colored box per task per user. The colors indiate whether or not the user performed an accurate first click. It provides a visual indicaton of the worst performing tasks.

Note: All instances where the user's first click is the search bar are counted as a pass, even if it is not the primary method for completing the task.

Pass (search bar)

Pass

Fail

First-Click Heatmaps

Task 1

Task 2

Task 3

First-Click Heatmaps

Task 4

Task 5

Task 6
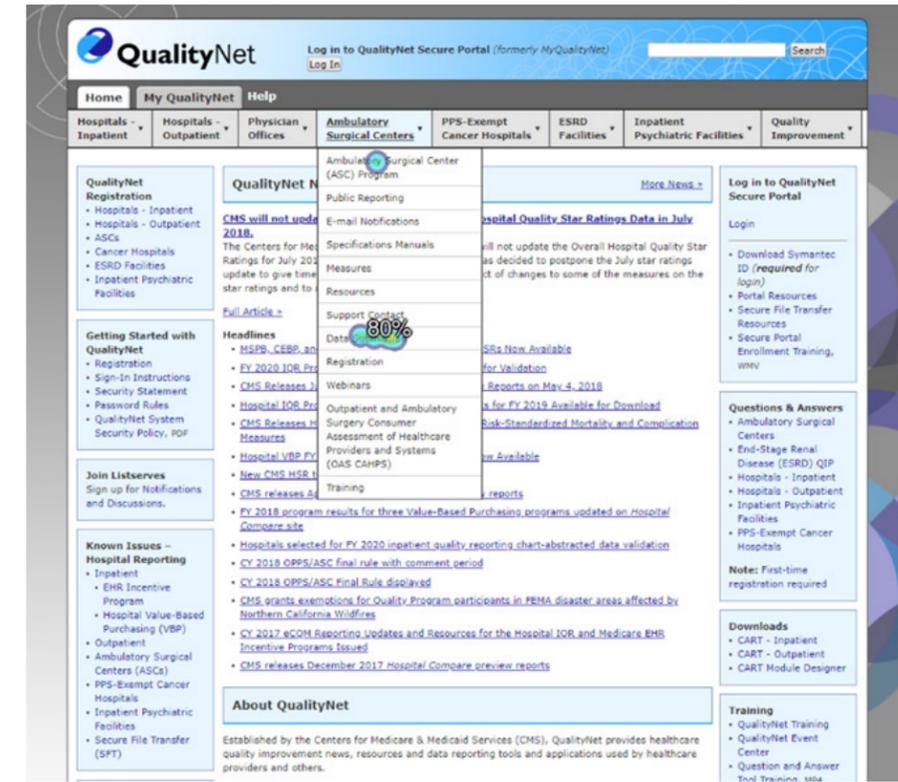
First-Click Heatmaps

Task 7

Task 8

Task 9

First-Click Heatmaps

Task 10

Task 11

Task 12

First-Click Heatmaps

Task 13

Task 14

Task 15

First-Click Heatmaps

Task 16

Task 17

QUALITYNET (QNP)
TASK-BASED TESTING

Task Completion

The below diagram is a visual representation of Task Completion, displaying a colored box per task per user. The colors indiate whether or not the task had a good, average, or poor task completion. It provides a visual indicaton of the worst performing tasks.
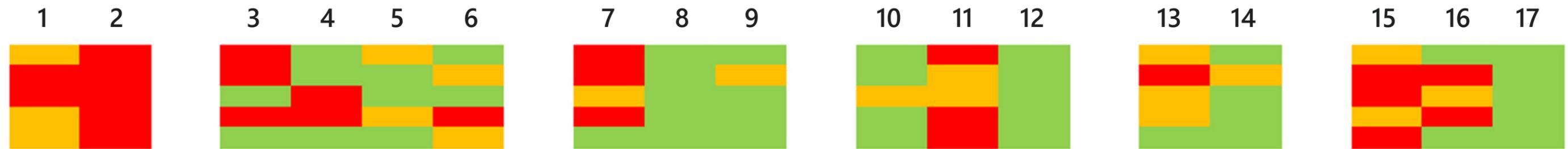
Good: Task completion in <1 minute

Average: Task completion in 1-2 minutes

Poor: Task completion in >2 minutes, if at all

Task Difficulty Rating

At the end of each group of tasks, users were asked to rate the difficulty of the tasks, 1 being easy and 5 being difficult.

User	News Tasks	Submission Deadlines Tasks	Specifications Documents Tasks	Measures Tasks	CART Tasks	Hospital Compare Tasks
User 1	4	2	2	3	1	2.5
User 2	3.5	3.5	4	3.5	2	2
User 3	4.5	3	1.5	1.5	3	3
User 4	1	4	3	3	1	2
User 5	4	3	2	5	2	3
Average Difficulty Rating	**3.4**	**3.1**	**2.5**	**3.2**	**1.8**	**2.5**

The News Tasks, Submission Deadlines Tasks, and Measures Tasks are the most difficult group of tasks to complete. The Specifications Documents Tasks, CART Tasks, and Hospital Compare Tasks are the easiest to complete.

Task-Based Testing Quotes

News Tasks
- *"The end says 2017, and I'm looking for something that goes back farther. That wasn't a good use of my time."*

Submission Deadlines Tasks
- *"They usually send out an email blast that tell you when the deadlines are."*
- *"Where you find one thing on one program is not the same thing on other programs. The same things aren't under the same tabs."*
- *"It has individual dates under measures in paragraph form, different than others with PDFs. Again, more inconsistency."*
- *"It should be synchronized...it's difficult if you don't know where to look."*
- *"It's funny it's a link embedded in a sentence, as opposed to it being part of the menu. That's where I was looking initially."*
- *"Why is it not a PDF? The dates don't stick out...hard to read."*

Specifications Manual Tasks
- *"Should have Specifications Manual under the category like Hospital Inpatient. What would be best is consistency."*
- *"Some have in table format, others in PDF. There's a discrepancy. I prefer PDF so you can save it and print it."*
- *"Different from what we just did before."*
- *"Oh that was lucky, there was no indication that I would need to scroll."*
- *"It's called differently, needs to be called the same way."*
- *"It says Public Reporting of Data instead of Public Reporting. They're not in the same order. I would expect them to be in similar order."*

Task-Based Testing Quotes Continued

Measures Tasks

- *"It should be the same to look for everything across the different categories. These are important questions you're asking that someone should be able to find easily."*
- *"Some were easy, some were difficult and had to go searching."*
- *"You weren't really sure if it was on the page or if you had to scroll down."*
- *"That was hard."*
- *"I prefer a PDF. Easier to distribute."*

CART Tasks

- *"Instead of putting the version, putting the dates. People look more for the dates."*
- *"The versions are different...they don't make sense from one program to another."*

Hospital Compare Tasks

- *"As long as it's consistent throughout, it would make it much easier. Instead of embedded, if they had a heading for Preview Reporting like they did on Inpatient."*
- *"If someone didn't know it was publicly reported, it would be difficult to find. A brand new user would have a lot of difficulty. Someone using it for multiple years, it's not as difficult. It's not the same on each tab."*
- *"A period should be more defined in a visual way, like a table or calendar."*
- *"It says Public Reporting of Data instead of Public Reporting. They're not in the same order. I would expect them to be in similar order."*

First-Click vs. Task Completion

The below diagrams are visual representations of the First-Click Test vs. Task Completion. They display a colored box per task per user. The colors indiate whether or not the task had an inaccurate first-click and a poor task completion, or an accurate first-click and a poor task completion. It provides a visual indicaton of the worst performing tasks.

Inaccurate First Click + Poor Task Completion

Accurate First Click + Poor Task Completion

QUALITYNET (QNP)
REDESIGNED QNP – FIRST IMPRESSION TESTING

First Impression Testing Scores

Rating	
1	Strongly Disagree
2	Disagree
3	Neutral
4	Agree
5	Strongly Agree
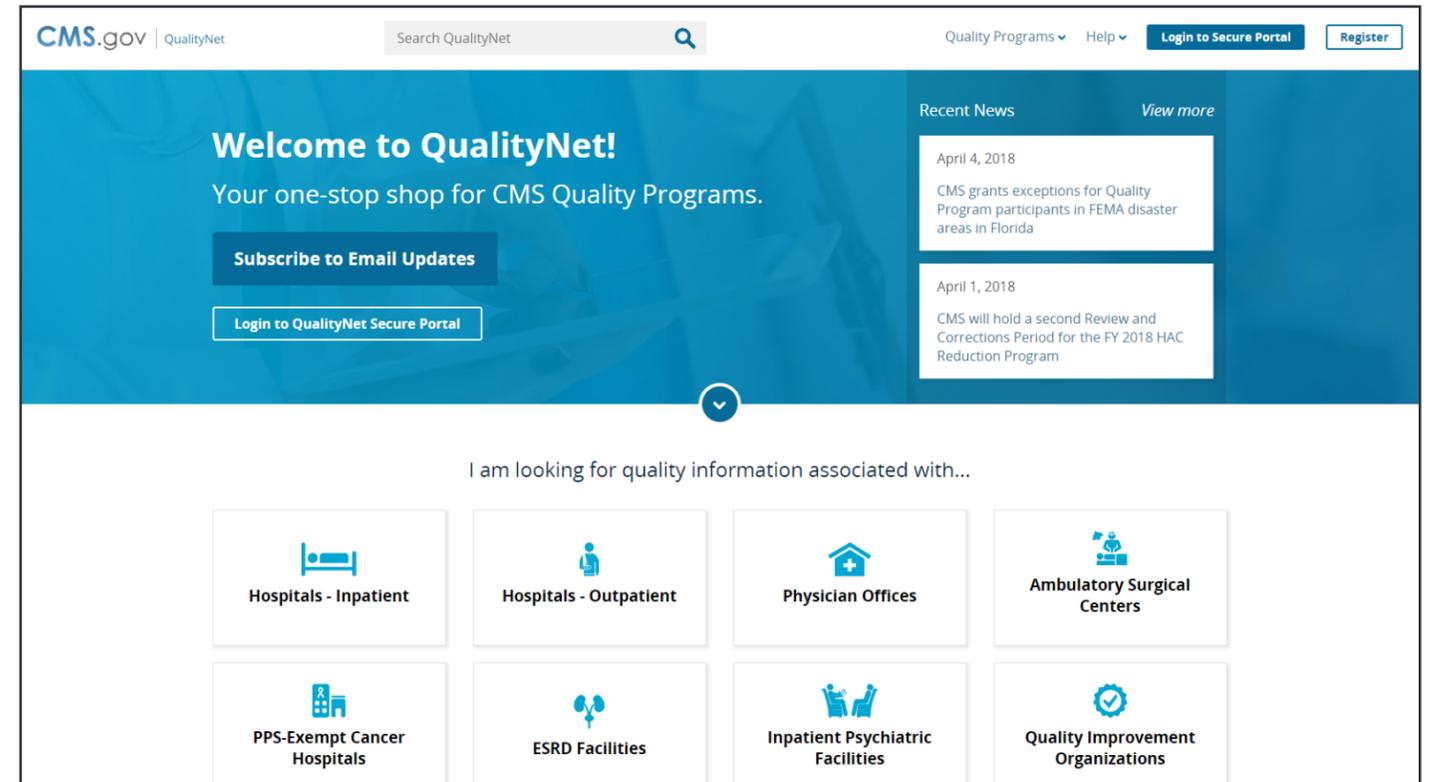
User	The webpage makes a positive first impression	The webpage looks easy to use and navigate	The webpage has a nice look and feel
User 1	4	4	4
User 2	5	4	4
User 3	5	5	5
User 4	4	5	5
User 5	4	5	5
Average Rating	**4.4**	**4.6**	**4.6**

First Impression Testing Quotes

"I like it because it's all under one topic. Not as crowded or congested as the old site."

"Simple, not stressful. Looks soft and personable because of icons. Didn't seem intimidating, hardly any writing. I like the welcome with the exclamation point (makes it personable).

"I like it because it has clearly identified areas. If I know what I'm looking for (like ESRD QIP), there is a button there. I can go to another screen to get information. Easy to use."

"Much cleaner. Buckets so there's not a lot of busy words. I would want to click on what I want to look at then find the rest of the information there."

"Very easy to read and figure out where things are."

First Impression Word Clouds

Word clouds are visual representations of the most commonly used words and phrases. Words are displayed with a text size proportional to their frequency, i.e. frequently used words are given a larger text size.

**What are your first impressions
of the webpage?**

**What do you remember about
the webpage?**

Baseline vs. Redesigned QNP First Impression Testing

Rating	
1	Strongly Disagree
2	Disagree
3	Neutral
4	Agree
5	Strongly Agree
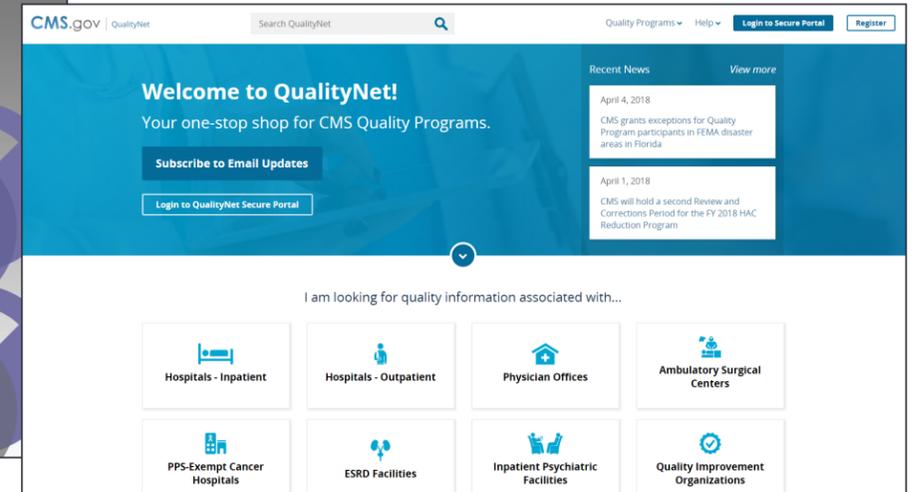
User	The webpage makes a positive first impression	The webpage looks easy to use and navigate	The webpage has a nice look and feel
Baseline Average	2.8	2	2.4
Redesigned Average	4.4	4.6	4.6
Difference	**+ 1.6**	**+ 2.6**	**+ 2.2**
% Change	**32%**	**52%**	**44%**

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QUALITYNET (QNP)
FINDINGS & RECOMMENDATIONS

FINDINGS OVERVIEW
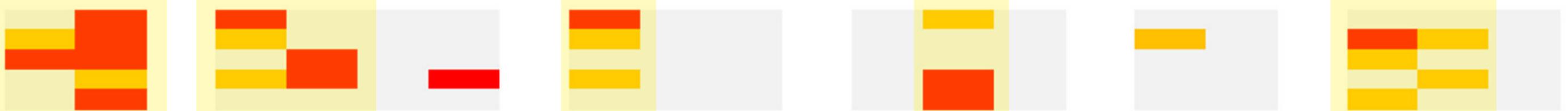
First-Click

Task Completion

First Click vs. Task Completion

1   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17

Worst performing tasks are highlighted in yellow.

Worst Performing Tasks

Task #	Task	Reasoning
1	Find the news article containing information about the release of the October 2016 Hospital Compare Preview Reports.	The News page is a single large list that takes awhile to load. Users must scroll to search for the correct article.
2	Find Ambulatory Surgical Center news articles.	Users have no idea the provider type header is clickable, given the on-hover navigation.
3	You are participating in the Hospital Inpatient Quality Reporting Program. Find the program's submission deadlines.	The Inpatient submission deadlines are embedded within a wall of text or located in a different place than the other provider types, making it difficult to find.
4	You are participating in the PPS-Exempt Cancer Hospital Quality Reporting Program. Find the program's submission deadlines.	The inconsistency from the prior Inpatient submission deadlines task may have increased confusion for this task.
7	You are participating in the ESRD Quality Reporting Program. Find the measure specifications documents.	Many users were unfamiliar with ESRD, and the location of the measures specifications documents differ from other provider types.
11	You are participating in the Hospital Inpatient Quality Reporting Program. Find the program's complete list of 2019 measures.	The location of the Hospital IQR Program measures list is different than the other categories, due to a lack of a "Measures" navigational item.
15	You are participating in the Hospital Inpatient Quality Reporting Program. Find information about the Hospital Compare Preview Periods.	Users go to the correct page (accurate first-click), but take awhile to find the specific information within a wall of text.
16	You are participating in the PPS-Exempt Cancer Hospitals Quality Reporting Program. Find information about the Hospital Compare Preview Periods.	The display of the content is inconsistent. Some have headers, some are embedded within paragraphs, etc.

Best Performing Tasks

Task #	Task	Reasoning
8	You are participating in the Hospital Outpatient Quality Reporting Program. Find the measure specifications documents.	The "Specification Manuals" navigational link is consistent with Inpatient and readily available. Users have no difficulty completing this task.
9	You are participating in the Inpatient Psychiatric Facilities Quality Reporting Program. Find the measure specifications documents.	This task is consistent with the ESRD Specifications Documents task.
10	You are participating in the Ambulatory Surgical Centers Quality Reporting Program. Find the program's complete list of 2019 measures.	The measures live under a "Measures" navigational item, making it the obvious location for users to go.
12	You are participating in the PPS-Exempt Cancer Hospitals Quality Reporting Program. Find the program's complete list of 2019 measures.	The measures live under a "Measures" navigational item which is consistent with ASC, allowing for easy learnability.
14	You are participating in the Hospital Outpatient Quality Reporting Program. Download CART for 2017.	Inpatient CART and Outpatient CART have a consistent location and display. After performing the Inpatient CART task, users learn how to complete the Outpatient CART task.
17	You are participating in the Inpatient Psychiatric Facilities Quality Reporting Program. Find information about the Hospital Compare Preview Periods.	Users learn and understand where the content is by the third time around. The Public Reporting content is relatively consistent.

Recommendations

Improve site-wide consistency

- The location of like-items should be the same across the different provider types.

- 100% of users discussed the inconsistency in the existing QualityNet.org.

- Tasks with better task completion scores have consistent locations across the existing site, while tasks with worse task completion scores are inconsistent across the existing site.

Don't embed links to documents within text

- Embedding document links into walls of text make it easy for users to miss.

- Even if users make the correct first-click, they may miss what they're looking for.

Use the same order for navigational items

- The navigation within each provider type should have the same order for like-items.

- Using the same navigational order will help improve the learnability of the site.

Recommendations Continued

Navigation should be triggered on-hover or on-click, but not both

• 0% of users were able to successfully complete the Ambulatory Surgical Center news articles task.

• Users do not know that you can click on the provider type navigation item to view a page that contains provider type-specific news articles – they assumed you could only see navigation on-hover.

Provide filtering capabilities for News items

• Locating the October 2016 Hospital Compare Preview Reports news task was a difficult task for users to complete.

• News articles are displayed in a single long list that takes awhile to load, making it difficult to locate older articles. Users are required to scroll down the page and search through article titles.

Use date as the primary identifier for CART versions

• The existing site uses version numbers as the primary identifier for CART, but it has very little meaning to the average user.

• Date would be a more usable identifier for CART versions.