2026 Health Plan Applications Usability Study

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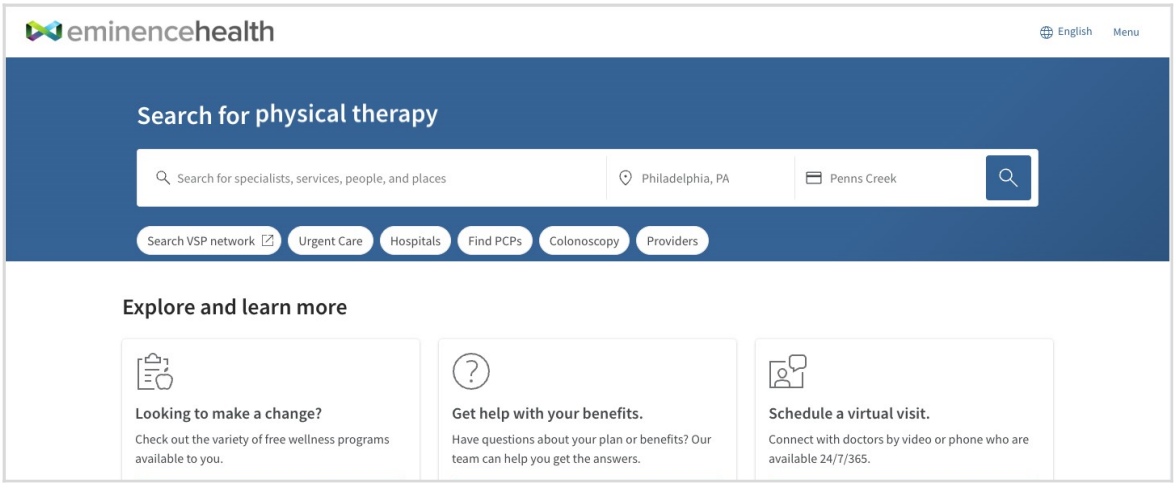
Overview

Introduction

Kyruus Connect for Payers provides a platform for health plans to deliver physician and hospital directory information, cost transparency, and quality data to members and employees. The platform is configurable to support plan-specific requirements, business rules, and claims data. To assess compliance with NCQA requirements, a usability evaluation was conducted using a publicly accessible environment populated with representative provider data, designed to simulate a real-world member search experience.

The evaluation employed a mixed-methods approach, combining an unmoderated usability study with both qualitative and quantitative measures. Participants completed standardized, task-based scenarios reflective of common member use cases. Post-task satisfaction was measured using the Single Ease Question (SEQ), and a multi-dimensional linguistic audit was conducted to assess content readability across key interface areas. In addition, the experience was evaluated for alignment with established accessibility standards, including WCAG 2.1 and Section 508. These methods provided a structured basis for assessing usability, accessibility, and adherence to applicable regulatory requirements.

The evaluated experience reflects the platform's public search tool, which enables users to locate providers, facilities, and services by name, specialty, or location. Search results can be refined through filtering and sorting controls, compared across options, and reviewed in detail via dedicated profile pages. For the purposes of this evaluation, participant sessions were initiated with location and health plan parameters pre-configured, ensuring a consistent testing context and enabling immediate task execution.



Methodology

The study included fourteen participants selected to reflect the population likely to use the application:

- The sample consisted of seven women and seven men.
- Participant ages were distributed across five-year intervals ranging from 30 – 69.
- All participants were based in the United States.
- All participants had accessed their health plan's website within the past year.
- Participants represented a range of income levels, employment statuses, and levels of technical proficiency.
- None of the participants were involved in the design or development of the physician and hospital directory.

For the usability test (Element I), a script (see Appendix) was created for an unmoderated study, in which users were instructed to carry out a set of three representative tasks using the software. Sessions were recorded with participants' consent. The same script was used for each session to ensure consistency.

The goal was to evaluate the following criteria and document the findings:

- Fonts and text size are readable.
- Language is fairly easy to understand.
- Workflow through the tool allows a logical progression. Users know where they are, what's been completed, and what needs to be completed. There is appropriate feedback for steps.
- Navigation is clear and consistent; links use clear labels and terminology and are grouped into meaningful categories.
- The directory is available in additional languages (e.g Spanish).

Findings

HIP 4: Physician and Hospital Directories, Element I: Usability Testing

The scoring for HIP 4, Element I is based on the number of factors met out of the five criteria.

Factor	Criterion	Scoring	Explanation of findings
1	Fonts and text size are readable.	Yes	Participants were asked to complete tasks involving navigation, filtering, and information review across the site. All participants were able to read and interpret on-screen text without difficulty, indicating that font size and readability were sufficient.
2	Language is fairly easy to understand.	Yes	Participants completed tasks requiring interpretation of content and decision-making based on available information. Observations indicated that participants consistently understood the language used and were able to take appropriate actions, including navigation, filtering, and selection.
3	Workflow through the tool allows a logical progression. Users know where they are, what's been completed, and what needs to be completed. There is appropriate feedback for steps.	Yes	Participants completed multiple search tasks within a single workflow, including navigating between results, profiles, and search functions. All participants successfully progressed through tasks, demonstrating clear awareness of their location, completed steps, and available next actions.
4	Navigation is clear and consistent; links use clear labels and terminology and are grouped into meaningful categories.	Yes	Participants navigated between pages, applied filters, and accessed relevant information using site links and categories. Observations indicate that navigation elements were consistently understood, with labels and groupings supporting efficient task completion.
5	Is the directory available in additional languages (e.g., Spanish)?	Yes	Language options are available via controls in the header and footer, including Spanish and, for some clients, additional languages such as Haitian Creole. This meets the stated criteria for multilingual availability.
Kyruus Health meets all 5 factors		**100%**	

Factor 1: Font size

The platform demonstrates strong readability across all evaluated tasks. Participants were able to complete a range of activities—including searching for providers, applying filters, and reviewing detailed information—without any observed difficulty related to text size or legibility. Users effectively scanned and interpreted key information such as provider names, specialties, network status, and availability indicators.

The application is built in accordance with established accessibility standards and is designed to meet both WCAG 2.1 and Section 508 requirements. The platform uses a base font size of approximately 16px (1rem) for body text, which is widely recognized as the minimum standard for readable digital content, particularly in healthcare contexts serving diverse and aging populations. Font sizes are implemented using relative units (rem), supporting scalability across devices and user settings. In alignment with these standards, the interface supports text resizing up to 200% without loss of content or functionality and presents text with sufficient contrast—typically dark gray or blue text on white backgrounds—meeting or exceeding the recommended contrast ratio of 4.5:1 for standard text.

Taken together, usability observations and alignment with accessibility standards indicate that the platform effectively supports readable and accessible text presentation.

Factor 2: Reading level

Participants consistently demonstrated an ability to understand the language and terminology used throughout the interface. Across all scenarios, users were able to interpret instructions, navigate search results, and make decisions based on available information. Common healthcare terms (e.g., “primary care,” “specialist,” “in network”) and key status indicators (e.g., “accepting new patients”) were generally clear and supported task completion.

To further evaluate content accessibility, a multi-dimensional linguistic audit was conducted using the Google Gemini 3 Flash large language model. Content from the Dashboard, Search Results, and Profile pages was assessed across six established readability metrics (see Appendix). Results indicate a structured approach to content complexity, with Dashboard and Search Results content falling within a Grade 5–7 reading level, and Profile pages reaching approximately Grade 10 to support necessary clinical terminology.

This distribution reflects a deliberate layering of information complexity aligned with universal design principles and healthcare best practices. High-frequency tasks—such as searching, filtering, and comparing providers—are supported by accessible language, while more detailed content maintains clarity and accuracy.

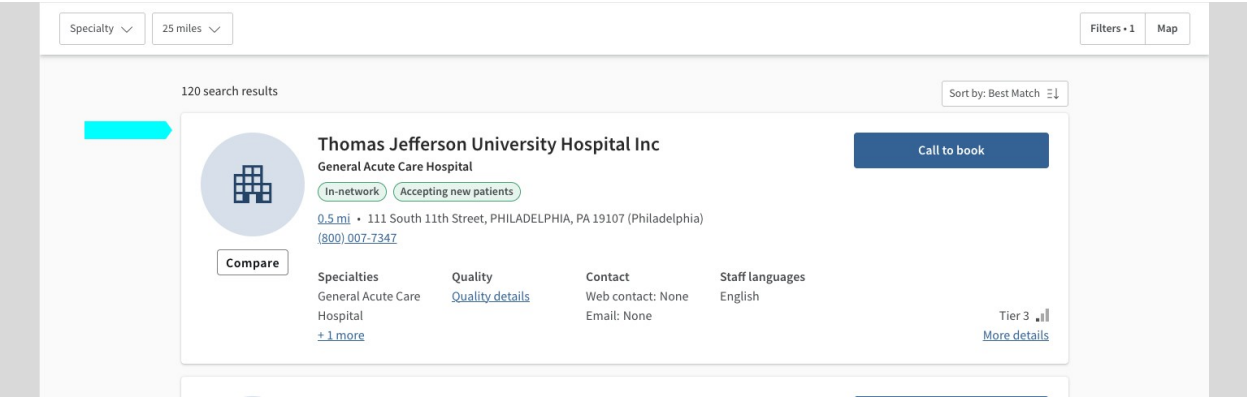
Minor opportunities for improvement were observed, particularly around phrases such as “accepting some new patients.” This reflects the inherent complexity of communicating healthcare and insurance information, where some ambiguity is unavoidable.

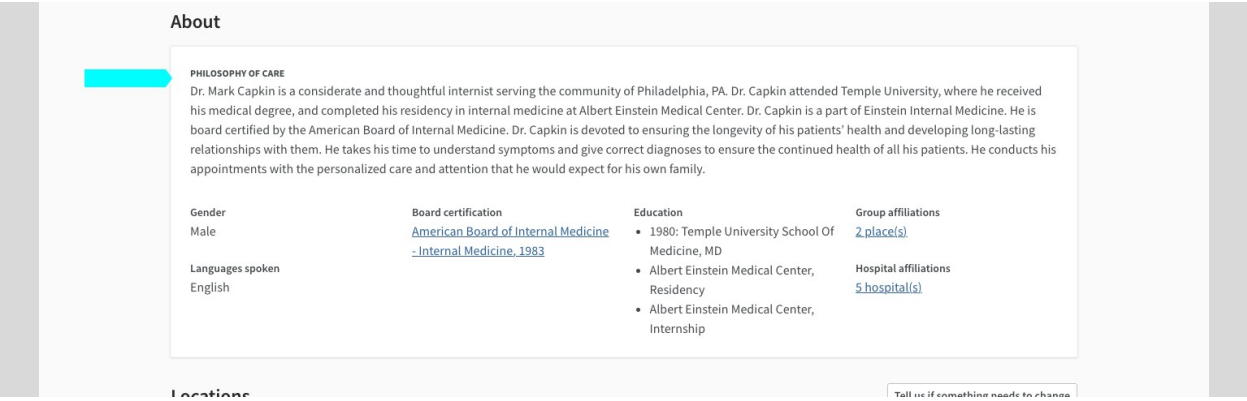
Findings from both usability testing and readability analysis indicate that the platform's language effectively supports comprehension and informed decision-making for a broad user population.

Index	Dashboard & Navigation	Search Results & Filters	Provider & Location Profiles
Flesch Kincaid Reading Ease	71.3 (Very easy to read)	64.1 (Fairly easy to read)	56.9 (Fairly Difficult/Standard)
Flesch Kincaid Grade Level	5.2 (5th grade)	7.4 (7th grade)	10.3 (10th grade)
Gunning-Fog Score	9.4 (Fairly easy to read)	10.1 (Fairly easy to read)	11.1 (Fairly easy to read)
SMOG Index	9.4 (9th grade)	10.4 (10th grade)	8.9 (9th grade)
Coleman Liau Index	8.5 (Fairly easy to read)	10.2 (Fairly easy to read)	9.5 (Fairly easy to read)
Automated Readability Index	4.9 (5th grade)	7.4 (7th grade)	6.5 (9th grade)

Factor 3: Content organization

The application is structured around three primary screens: the dashboard, search results, and provider profiles. As users progress through the interface, content becomes increasingly specific and detailed, supporting a logical flow from general search to provider-level decision-making. Both the search results and profile pages utilize consistent card-based layouts, allowing users to efficiently scan and compare information.



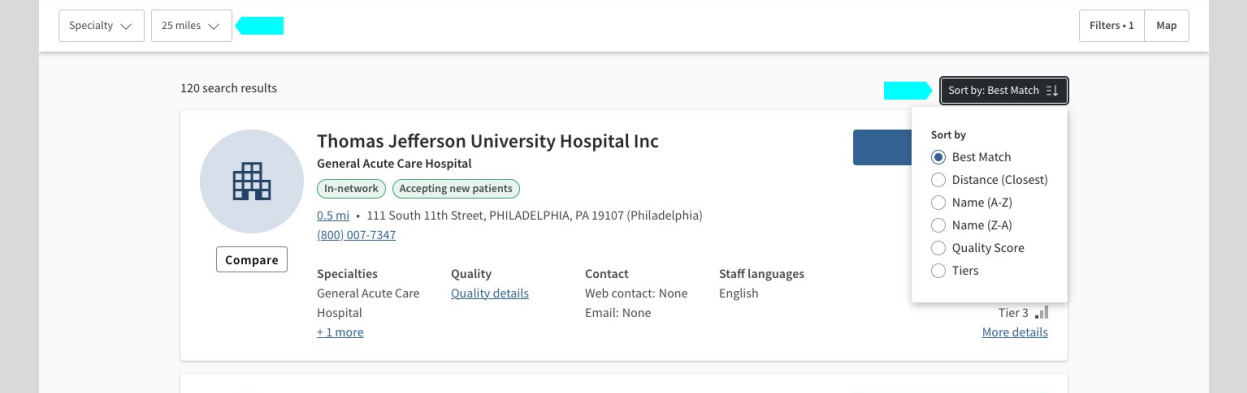


Navigation and contextual cues are consistently presented across screens to support user orientation. At the top of each page navigation elements allow users to understand search again or return to previous steps. Participants demonstrated an understanding of these controls, including using the search icon or dashboard link to restart or modify their search. Additional context—such as selected location and health plan—was displayed persistently, helping users interpret results within the appropriate context. However, some participants expressed uncertainty about whether the correct location or zip code had been applied during location-based tasks, suggesting that this information could be more clearly reinforced.



Across scenarios, participants were able to initiate and complete search workflows with minimal friction. Most users immediately utilized the search bar to locate providers, while a smaller number initially explored category-based navigation quick links. Once in the results view, users were able to refine their searches using filters and sorting tools, including narrowing by specialty, gender, and distance. While these tools were effective, some participants required additional time to locate specific filters (e.g., gender) or expected them to be more prominently displayed.

Participants were consistently able to interpret and act on system feedback within the workflow. Indicators such as “in network” and “accepting new patients” were easily recognized and frequently used to guide decision-making. In Scenario 1, users were able to locate a specific provider and confirm key details with little difficulty. In Scenario 2, participants successfully compared multiple providers and selected options based on factors such as quality score, proximity, and availability. In Scenario 3, users were able to refine hospital results by distance and identify nearby facilities, although some uncertainty remained around how location inputs were applied.



All participants were able to navigate to provider profile pages and identify key information such as office hours, contact details, and affiliated locations. Visual indicators—such as color-coded labels and status flags (e.g., “Accepting new patients”)—were frequently referenced and supported efficient interpretation of important details. However, a small number of participants initially relied on secondary actions (e.g., “View Availability”) to confirm provider status before locating this information directly on the profile, indicating an opportunity to improve the visibility of key indicators.

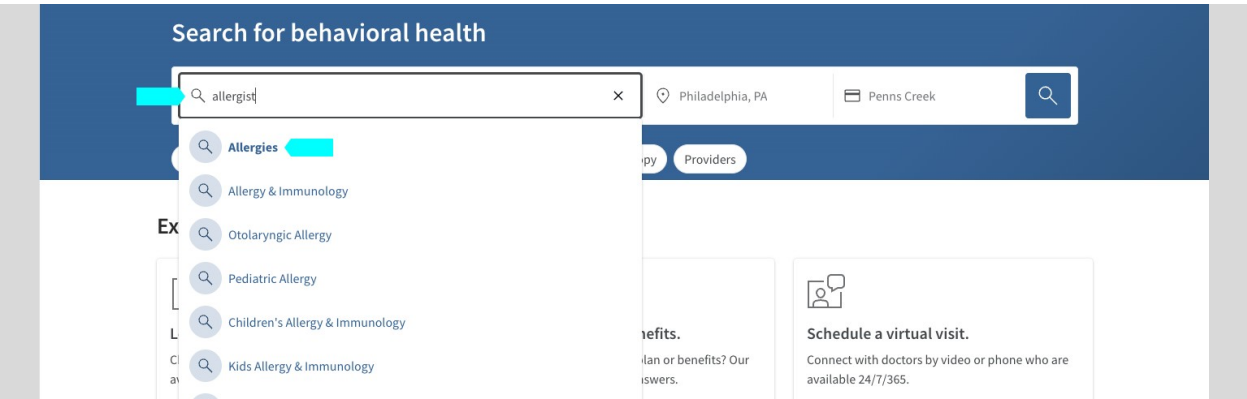
Post-task satisfaction was measured using the Single Ease Question (SEQ) on a 5-point scale (1 = very easy, 5 = very difficult) following each scenario. Scores were normalized and aggregated across tasks to create a composite Task Ease Index. The resulting score of **75/100** indicates that participants generally found tasks easy to complete.

At the task level, direct search activities (e.g., finding a specific provider or locating nearby hospitals) were rated as easiest, while tasks requiring comparison and decision-making (e.g., narrowing options and selecting a provider) showed slightly higher perceived difficulty. This distribution aligns with observed behaviors, where users were able to complete all tasks successfully but required more time and effort when evaluating multiple options or interpreting more complex information.

Overall, the workflow supports a clear progression from search to selection, with consistent patterns and feedback mechanisms enabling users to complete tasks effectively. Minor friction points—primarily related to filter discoverability and location clarity—did not prevent task completion but indicate opportunities to further strengthen the user experience.

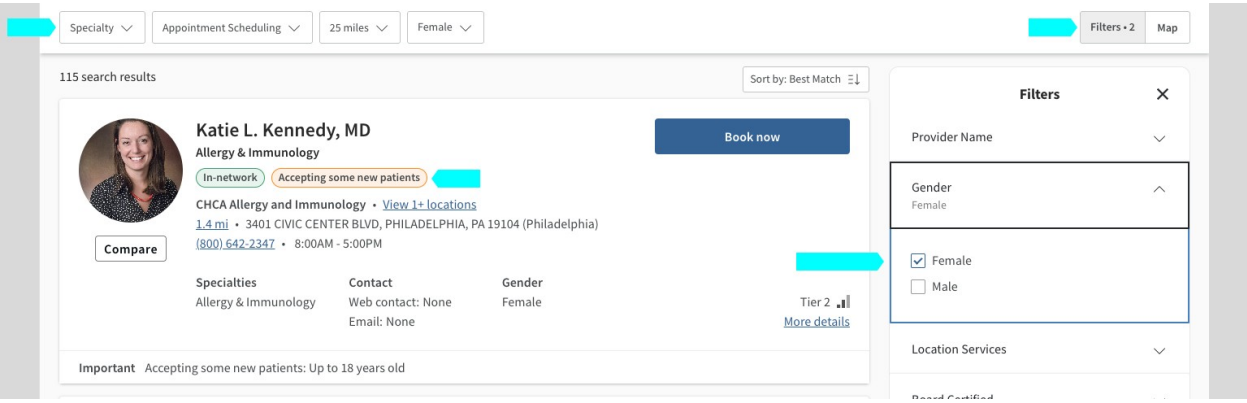
Factor 4: Ease of navigation

The platform’s navigation is centered around a single, prominent search bar that serves as the primary entry point for user interaction. Participants consistently identified the search field as the starting point for finding providers, specialties, and locations. Users were able to initiate searches by typing directly into the field, selecting from suggested terms, or using the search icon or keyboard controls (e.g., “Enter” or “Return”), demonstrating that primary call-to-action elements were clear and consistently understood.



Search suggestions and autocomplete options used familiar healthcare terminology, enabling users to quickly identify relevant categories such as provider names, specialties, and services. Participants were able to interpret these labels without confusion and select appropriate options on their first attempt, indicating that terminology was intuitive and aligned with user expectations.

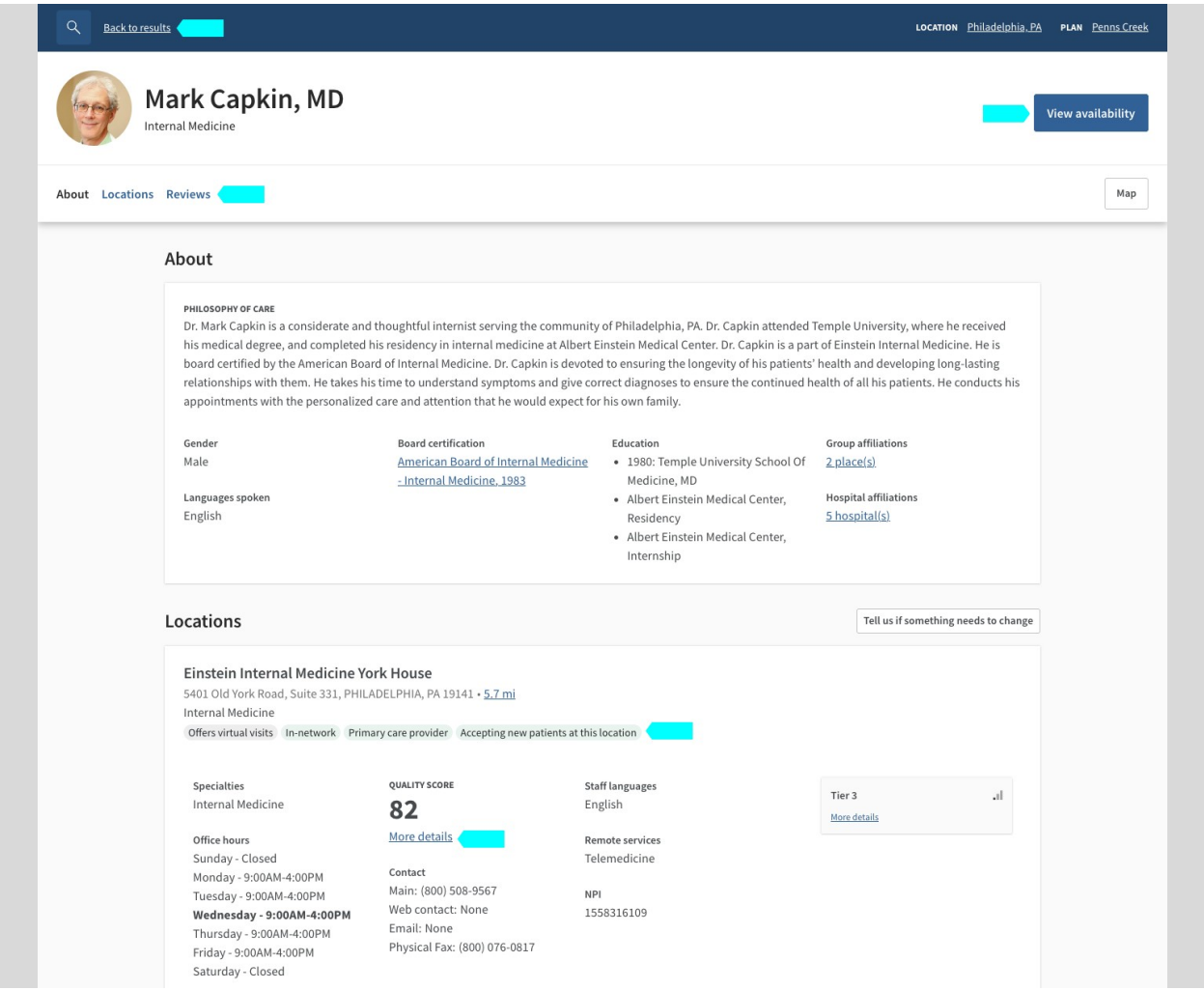
Within the results experience, navigation controls were logically grouped and labeled in a way that supported refinement of results. The “Filters” control was consistently recognized as the mechanism for narrowing results, and participants were able to access filtering options such as gender, specialty, and distance. While the filter panel itself was effective once opened, some participants required additional time to locate specific filter categories (e.g., gender), suggesting that the grouping and visibility of certain controls could be improved.



Links and interactive elements across the interface used clear and descriptive labels, including actions such as “View Availability,” “More Details,” and navigation links back to search results or the dashboard. Participants were able to understand the purpose of these actions and use them appropriately without misinterpretation. Visual differentiation of interactive elements, including buttons, links, and status indicators, supported recognition of clickable elements and reinforced expected behaviors.

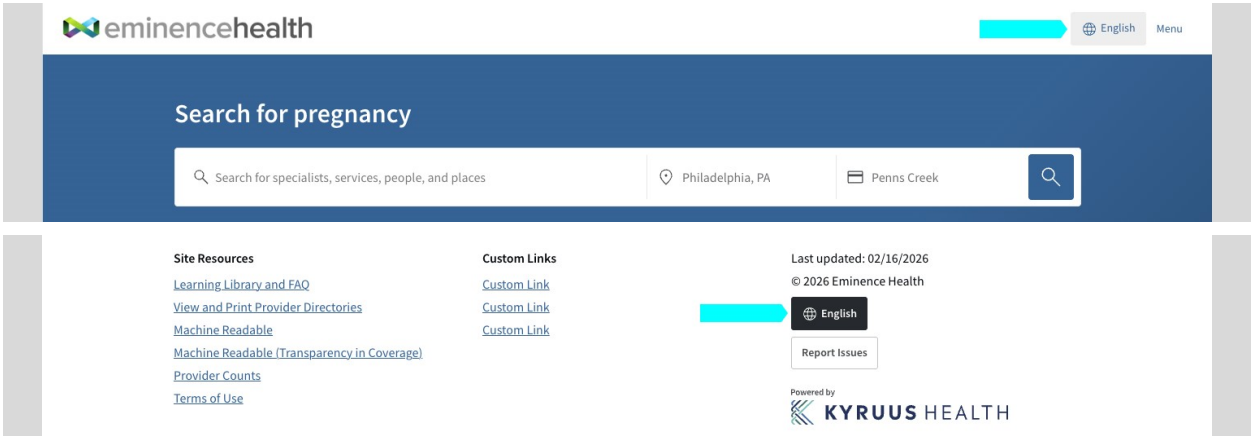
Navigation elements are consistently labeled and grouped, enabling users to move through the interface and take action with minimal confusion. Minor opportunities for improvement were observed in the visibility and organization of certain filtering controls, but core navigation patterns and terminology were effective and aligned with user expectations.

These findings are supported by the post-task satisfaction scores described in Factor 3: Content organization, which indicate a high level of perceived ease across tasks.

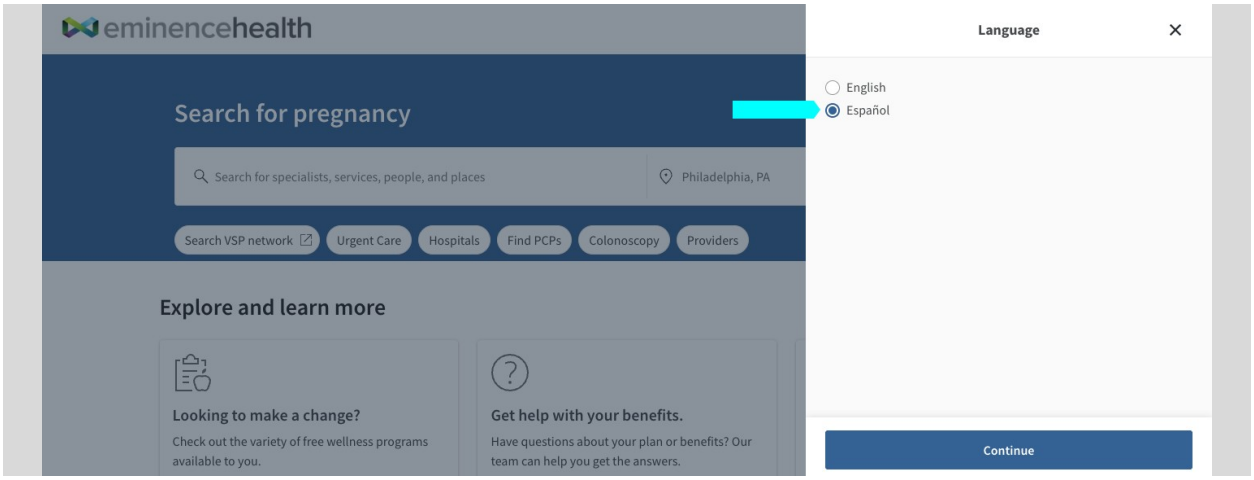


Factor 5: Directories in additional languages

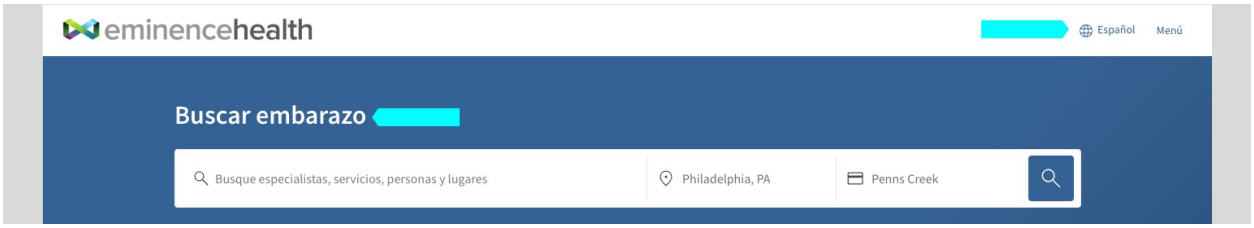
Language options are available via controls in both the header and footer.



Selecting these controls opens a panel where users can set their language preference.



Upon selection, the application updates to reflect the chosen language across the interface.



Appendix

Usability Script

Introduction

Welcome
In this study, you'll be asked to complete a few tasks using a health insurance "Find a Doctor" website.

We'll first give you a short scenario to set the context. Then, you'll be taken to a live version of the website where you'll complete the task.

As you go, please think out loud—tell us what you're looking for, what you expect to happen, and anything that feels confusing or unclear.

There are no right or wrong answers—we're testing the experience, not you.

This test will take about 30 minutes.

Instructions

You're moving to Philadelphia next month for a new job. Since you'll be working from home, you want to find doctors and hospitals in your new area.

As you go through the following tasks, please imagine this is your health insurance website.

You'll now use the website to begin your search.

Scenarios

Scenario 1: Finding a new primary care doctor
Your friend recommended a primary care provider, Dr. Mark Capkin. Your location (Philadelphia, PA) and insurance plan (Penns Creek) have been pre-selected. Find Dr. Mark Capkin using the search tools on this page.

Please think out loud as you complete the task:

- Was it immediately clear how to start your search, or did you have to look around?
- What, if anything, is confusing as you start your search?

How easy or difficult was it to find a way to search for a specific doctor?

- Linear scale rating: 1- Very Easy through 5- Very Difficult

Looking at Dr. Mark Capkin's profile page

- How can you tell if he is accepting new patients?
- How can you tell if he is in network with your health plan?
- Long text written answers

Scenario 2: Finding a specialist
You've had allergies most of your life and regularly see an allergist. Please start a new search for doctors who treat allergies.

Please think out loud as you complete the task:
- What are you noticing as you look at these results?
- If you only wanted to see female doctors, how would you do that?
- If you wanted to see more results, what would you do?
- How can you tell if a provider is in network with your plan?
- How can you tell if a provider is accepting new patients?
- Choose one provider and explain why you would select them.

How easy was it to narrow down your options and choose a provider?
- Linear scale rating: 1- Very Easy through 5- Very Difficult

Scenario 3: Finding a nearby hospital
Your son has asthma and occasionally needs urgent care. You want to know which hospitals are closest to your new home so you're prepared if needed.

Your new address is 840 Walnut Street, Philadelphia, PA 19107. Start a new search for hospitals within 1 mile of your zip code, 19107.

Please think out loud as you complete the task:
- How would you narrow your results to hospitals within 1 mile?
- How do you know if the hospital is in network with your health plan?

Please think out loud as you answer these questions:
- While viewing those results
- What do you think the order of the results is?
- How do you think you would go about changing the order?

How easy was it to filter and sort the search results?
- Linear scale rating: 1- Very Easy through 5- Very Difficult

Readability Evaluation Methodology

To ensure health literacy and universal design, the platform's content is evaluated using six distinct linguistic algorithms. These indices measure two primary factors: **syntactic complexity** (sentence length) and **semantic difficulty** (word length or syllable count).

1. Flesch Reading Ease (FRE)

The FRE rates text on a 100-point scale. Higher scores indicate material that is easier to read; lower scores indicate more complex content. For general healthcare consumers, a score between **60 and 70** is the target.

- **Formula:**
  Flesch Reading Ease = 206.835 − (1.015 × ASL) − (84.6 × ASW)
  (ASL = Average Sentence Length; ASW = Average Syllables per Word)
- **Interpretation:** Scores of 90-100 are considered "Very Easy" (5th grade), while scores of 0-30 are "Very Confusing" (College Graduate).

2. Flesch-Kincaid Grade Level (FKGL)

The FKGL translates the Reading Ease score into a U.S. grade level. This is the most common metric used to verify that content meets the Grade 8 threshold recommended for public health communications.

- **Formula:**
  Grade Level = (0.39 × ASL) + (11.8 × ASW) − 15.59
- **Interpretation:** The result indicates the number of years of education required to understand the text. While technical sites may score higher due to medical terminology, the goal for instructional text is Grade 8 or lower.

3. Gunning-Fog Index

The Gunning-Fog index is a "strenuous" test that penalizes the use of polysyllabic words (three or more syllables). It is used to identify where medical jargon may be creating a barrier to entry.

- **Formula:**
  Gunning-Fog Index = 0.4 × (ASL + Percentage of Complex Words)
- **Interpretation:** A score of 12 is equivalent to a high school senior. Results over 17 are reported as graduate-level complexity.

4. SMOG Index (Simple Measure of Gobbledygook)

The SMOG Index is the "Gold Standard" for healthcare documentation. Unlike other formulas, it predicts **100% comprehension** (rather than 50-75%) by focusing on the density of complex words.

- **Formula:**
  SMOG Index = 1.0430 × √(Complex Words × (30 ÷ Number of Sentences)) + 3.1291
- **Interpretation:** The result is a grade level. It is highly effective for identifying the "cognitive load" of medical provider profiles.

5. Coleman-Liau Index

Unlike the previous indices, Coleman-Liau ignores syllables and counts **characters** per word. This makes it more accurate for technical layouts (like search cards) where word length is a better indicator of difficulty than syllable count.

- **Formula:**
  Coleman-Liau Index = (0.0588 × L) − (0.296 × S) − 15.8
  (L = Average number of letters per 100 words; S = Average number of sentences per 100 words)

6. Automated Readability Index (ARI)

The ARI focuses on the physical structure of the page. Because it relies heavily on character counts and sentence length, it is an excellent measure of the **scannability** of our data-driven layouts.

- **Formula:**
  ARI = (4.71 × (Characters ÷ Words)) + (0.5 × (Words ÷ Sentences)) − 21.43
- **Interpretation:** Similar to the FKGL, the result is a grade level. Lower scores indicate that the UI is easy to scan at a glance.

Task Ease Index (SEQ Aggregation Methodology)

Methodology & Calculation

Post-task satisfaction was measured using the Single Ease Question (SEQ), a widely used usability metric that captures perceived task difficulty on a 5-point Likert scale (1 = very easy, 5 = very difficult).

To enable comparison across tasks and provide a single summary measure, SEQ scores were normalized and aggregated using the following method:

1. **Scale inversion** (to align with “higher = better” scoring):

Adjusted SEQ = 6 − Original SEQ

2. **Task-level averages** were calculated across all participants.
3. **Composite score calculation**:

Average Adjusted SEQ = Sum of task scores ÷ Number of tasks

4. **Normalization to a 0–100 scale** (for interpretability):

Task Ease Index = ((Average Adjusted SEQ − 1) ÷ 4) × 100

This approach produces a single index where higher values indicate greater perceived ease of use.

References:

- Sauro, J. (2018). *MeasuringU: Measuring Task-Level Usability with the SEQ*
- Tullis, T. & Albert, B. (2013). *Measuring the User Experience*