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The Price is Your Right: A Design Challenge

Design Brief

Please address all the following questions. Each response should not exceed 250 words.

I. Description of your team's objective.

1. Who is your target audience (e.g. age, gender, individuals with specific conditions) and why did you choose this group?

For our site we are targeting consumers of all genders aged 18 - 65 years old, seeking healthcare in Massachusetts.

We made this decision to incorporate the large population of consumers looking for specific healthcare procedures in their local area. The age consideration took into account that 18 is the minimum legal decision-making age, while at 65 you are considered a senior-citizen and your healthcare options are likely to change as you qualify for retirement plans, Medicare, and others.

Additionally, the mid-range age of 26 is the final year a consumer is qualified to rely on their parents' plan, at which point the majority will be looking for new healthcare options. As this age tends to correspond with young professionals, these consumers will be similarly price-sensitive.

2. Are you designing a mobile app or website and why?

For our design we are utilizing a website. We chose this platform after surveying a sample of 50 respondents across our target audience, including a variety of ages spanning from 19 years old to 62 years old, with a 63:37 split between females and males respectively. We found that 49% of respondents use "online" and "websites" to look for healthcare data; more than any other platform.

Additionally, we felt that presenting a large amount of data is easier to navigate and comprehend on a larger screen, in which users can simultaneously open new tabs to search definitions of procedures they may not understand, or additional information about specific providers, etc. This would be limited on an app, as the user is confined to the app capabilities and would have to exit in order to find information outside of that provided.

Furthermore, a website may still be accessed on a mobile phone if desired, through search engine apps such Safari or Chrome.

3. *In what situations do you think this mobile app or website would come in handy?*

While this was alluded to with our target audience above, we believe the site could be beneficial for a large group of consumers.

Starting with younger age consumers (18+), a large portion will be leaving home for the first time, and likely starting as a student. In this case, we found survey respondents are highly price conscious, with the majority having annual incomes below \$39,999 per year. Additionally, they may be moving from outside of Massachusetts, and are unfamiliar with the current healthcare system. With the average percentage of international students in Massachusetts being approximately 12.5% (Mass.edu, 2017), there is a sizable portion of the population seeking healthcare information.

Furthermore, by age 26, adults in Massachusetts are no longer qualified to stay on their parent's health plan. At this stage, they will need to explore healthcare options on their own.

For those aged 26 - 65, many are starting families. If new to Massachusetts, they may be unfamiliar with local healthcare options within the area, creating a need for the location services within our site. Providing the ability to narrow down providers by location, users are then able to compare other variables within that specific range, simplifying the process.

The situations listed above are specific examples of how specific demographics may become more price-sensitive, however, our design aims to simplify the healthcare search for everyone, by prioritizing the data that our target audience is looking for when making healthcare decisions.

II. Description of mobile app or website.

1. *What information would a user need to input (if any) to retrieve the data that is of most interest to them?*

In order to help simplify the search for healthcare within our site, users are prompted to provide some personal information which will then help to narrow down the selection of data provided on the subsequent pages.

This information includes their name, date of birth, current health plan, and zip code. If chosen to enter, this information is used to look at providers and services falling under their specifications (e.g. covered by their insurance, within their zip code).

On a second landing page following, they are then provided the option of setting additional metrics using a scale to rank values including a maximum price, minimum ranking (out of 5-star system), and distance radius to their zip code. Once again, answers to these settings will further narrow down the data / options displayed to the user.

2. *What pieces of information does your mobile app or website provide to help the user decide where/when/to whom to go for care? (e.g. cost per procedure, plus ability to*

filter data by healthcare provider (name, alliances and address), insurance provider, plan type, location, consumer ratings, accessibility, quality ratings)

Overall, our site provides a variety of information. This includes provider name, service offered, location, price, insurance coverage, hospital type, credentials and provider ranking.

These values were once again selected based on our survey research. When asked to rank the information they seek in selecting health-care options, respondents ranked the following in order of how they appear: First, location, followed by price, consumer reviews, provider credentials, and affiliations.

With these findings, we designed our site to provide, and compare these values clearly between providers.

Additionally, these metrics are used to filter the data that is ultimately shown to each user. For example, before seeing the data display screens, users are asked to provide a zip code and distance radius in which they would consider providers. By answering this, the site will filter the options to include only those which would be considered by the user, falling within the specified area. The same process is applied to ratings and cost, as they are the top three most desired traits when deciding on healthcare options.

a. List out the data fields that you'd pull in from the MA or NH cost datasets

For our site and target audience, we are focusing solely on health care within Massachusetts. Therefore, we only focused on this dataset.

From there, we pulled in provider name and affiliations, the location address and zip code, services provided, and cost estimates.

b. List out the data elements that you'd pull in from other data sources. What are some existing sources that you could retrieve this data from?

Some data being pulled in from outside the dataset includes insurance provider coverage, provider coverage, and customer reviews.

Insurance provider coverage can be sourced from insurance websites, or on provider sites where applicable. Similarly, provider credentials and ratings can be found on the provider and/or affiliate sites, such as Mass General, Beth Israel, and more. By selecting the doctor within the affiliate site, you are able to see their education and experience background.

If not available on a hospital site, the government site for Massachusetts hosts a database for licensed physicians in which you are able to search by name, submit a public information request, or file a complaint which will feed into their reviews (mass.gov/check-a-physician-profile).

3. How does this data enable users to be better healthcare consumers?

This data allows users to become better healthcare consumers by providing them with a quick and simple way to compare providers and become more informed. By having a deeper understanding of the viable options available to them within Massachusetts, users can explore options based on the variables that are more important to them, and then find the highest quality providers within their specific needs.

Educated consumers are to provide more valuable feedback, which again can feed into the loop by increasing the amount, and quality of reviews for future users to access.

4. *Why do you think your design would appeal to your target audience?*

As mentioned above, we conducted a survey of respondents falling within our target audience in order to gauge the factors most important to their health care selection and decision process.

We found that the information they prioritize most in order of importance is location, service needed, cost (incl. Insurance coverage), consumer reviews and provider credentials, with a lowest rating for affiliations. By understanding this, we created our design such that users can specify their designed range for each metric, so that the data and options shown to them by the end are only those which fit the profile of their desired search.

By narrowing down their selection, our design makes the process easier and less overwhelming to the consumer. Within the options presented, users are able to compare those profiles that fit their specifications, and potentially use this to do more in-depth research before making a decision. Ultimately, comparing fewer viable options saves them time and money.

5. *How would you make the language and design accessible to people with different levels of health and numerical literacy?*

In order to enhance user-friendliness, the language and design will be kept simple.

For example, the filter for procedure type can be typed as a keyword, so if they are unfamiliar with the naming or exact procedure required, they can type in a body part and the related procedures will pop up. Due to the limitations of data incorporated, they may still be unfamiliar with some words, but could quickly refer to the internet online since they are using a website and therefore have access to do so simultaneously.

Additionally, the design is simplified to first gather their demographic information, which will narrow down the data shown on subsequent pages. The idea here is to simplify the amount of data they are seeing so it is not overwhelming, while still providing enough options for them to have choice and compare.

III. Description of what's needed to bring your design to life.

1. *How would you keep the information in your mobile app or website up-to-date?*

In order to keep the information on our site relevant and up-to-date, we could connect our site to the CHIA government site for Massachusetts from which we gathered the initial dataset. In doing so, we would capture changes made by the government institution to reflect on our site.

For data outside of this set, we could look to link or partner with insurance provider sites in order to flag changes in coverage for Massachusetts providers / affiliates.

2. What are the challenges of providing this information via a mobile app or website? What are some limitations associated with using your selected platform to deliver this information?

While we feel confident that a website is the right platform for health care information, one limitation is the increased access time. Mobile apps are more easily accessible for users with access to their phone, and can be used on-the-go.

Conversely, using a mobile app limits the user to information provided within, forcing them to exit in order to access external information.

With a website, users are already online, making it easier to access external information simultaneously. For example, if there is a procedure name or word they do not understand, they can quickly look it up while staying on our site.

Additionally, while an app cannot be accessed on a computer, a website could be accessed on a mobile phone using search engines. However, for this capability we would be forced to adapt the site to suit mobile formatting.

IV. Description of your marketing strategy.

1. How would you promote your mobile app or website? Discuss some strategies that may be well-suited to your target audience. Please cite sources where appropriate.

In developing our marketing strategy we first looked at the responses found in our survey of the target audience. What we found is that, when asked what sources our respondents use to consider healthcare options, their top consideration was advertisements, followed by online search, insurance provider websites, then word of mouth.

Knowing this, we would start our marketing strategy using targeted ads through internet search, based on purchasing of keywords and SEO related to health care. For example, this could include phrases such as “cost of x procedure” targeted at the services we offer, “medical insurance coverage” and others. Additionally, we could target advertisements on/after visiting the mass.gov/topics/health-care site, as it is a common place to search for health care data specific to Massachusetts.

Within this, understanding what information our consumers are looking for, we would focus our ads to display only the most vital and sought-after information they can find on our site.

Consumer behavior research has shown that shorter and personally relevant ads are most engaging for viewers. Therefore, we would choose to include our site name (and url address), with an example display including maps highlighting location areas, cost data, and customer reviews in a simple, easy, and compare option format. These customer reviews enhance the

illusion of “word-of-mouth” recommendations from peers and colleagues to help validate the services offered.