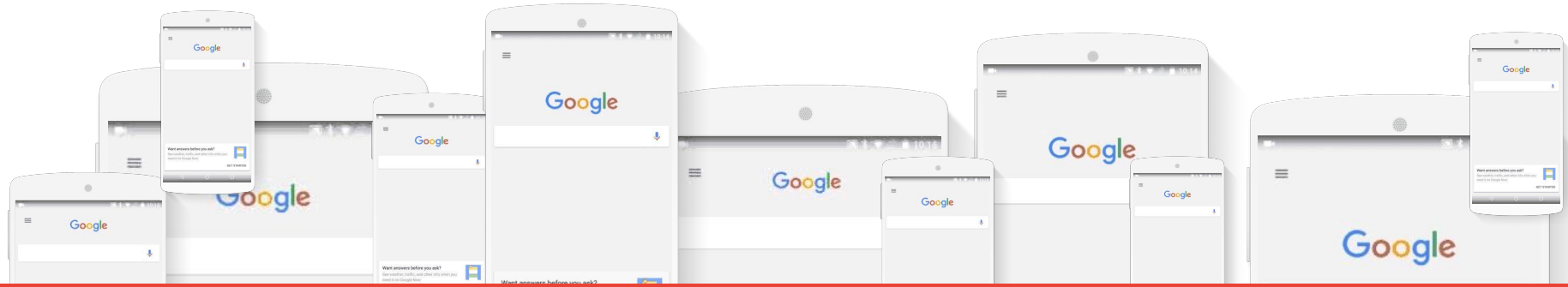


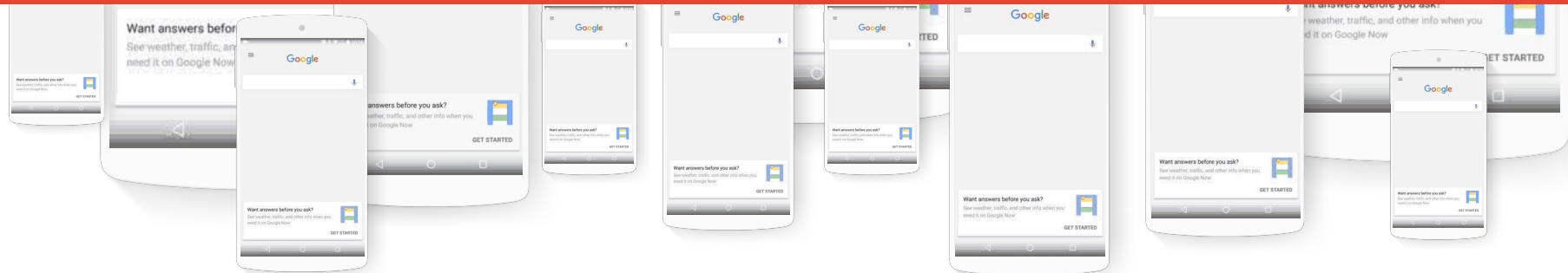
# UX Playbook for Healthcare

Collection of best practices to delight your users





65% of searches for health terms happen on mobile



hospital near me  
Search term

urgent care near me  
Search term

doctor near me  
Search term

coffee near me  
Search term



United States

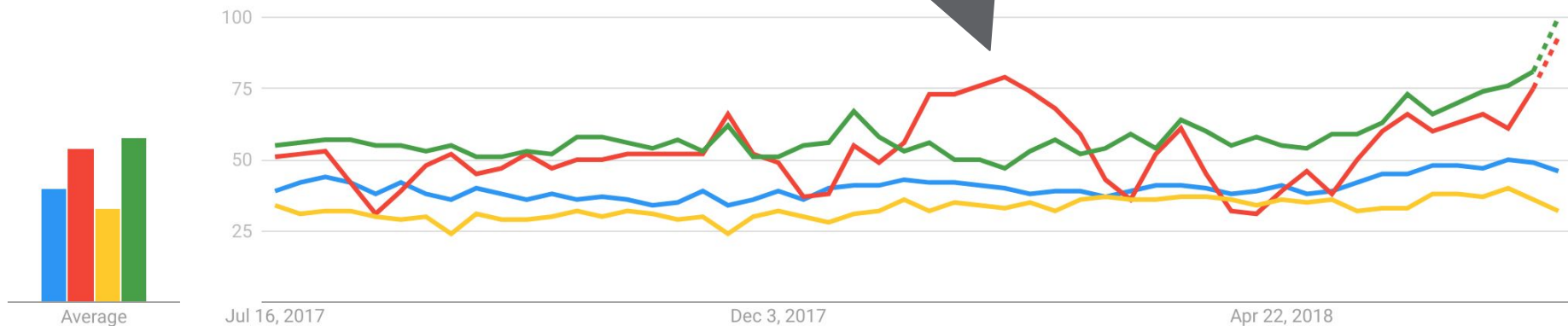
Past 12 months

All categories

Interest over time



More people searched for "Urgent care near me", than "coffee near me" during the intense cold and flu season in 2017/2018



“Today’s “patient” is increasingly less patient than she used to be”<sup>1</sup>

## Design with Empathy

- Websites are more than digital brochures, designing the UX requires empathy
- Many of healthcare website visitors are already under high amount of stress
- Additional frustration can be added by bad user experiences



## Creating frictionless experiences across the user journey

After looking at several hundred sites, we realized that there were certain universal UX elements that helped create a frictionless user experience. This list aims to expand on the 25 Mobile Design Principles and provide a checklist for improving your mobile site experience across 6 key site areas for Healthcare websites:

1. HOME/LANDING PAGE

2. MENU & NAVIGATION

3. SEARCH

4. LOCATION / DOCTOR

5. CALLS TO ACTION

6. FORM OPTIMIZATION

## Creating frictionless experiences across the user journey

| 1. HOME/LANDING PAGE   | 2. MENU & NAVIGATION  | 3. SEARCH                        | 4. LOCATION / DOCTOR  | 5. CALLS TO ACTION  | 6. FORM OPTIMIZATION                |
|--|---|----------------------------------|---|---|-------------------------------------|
| Clear CTA above the fold   | Show consolidated menu  | Include search                   | Use maps AND lists to let users find locations or providers                               | Have descriptive CTAs   | Reduce the number of fields         |
| Clear benefit-oriented value prop above the fold                       | Keep menu options on one page   | Make search visible at all times | Allow sorting / filtering   | Fill out a form, call or chat - decide which one is a priority            | Label and name inputs properly      |
| Don't use full page interstitials                                      | For main categories, order by traffic volume. If using subcategories, organize alphabetically | Use auto-suggestions             | Use real estate efficiently: use visual icons, show concise info, make it easy to compare | Have a value prop at every point in the conversion flow                   | Use placeholders                    |
| Remove automatic carousels   | Include post lead capture activities in the menu  | Implement spelling correction    | Add reviews and testimonials  | Allow users to continue on another device by emailing or saving for later | Use autofill                        |
| Display top categories on homepage                                     |   | Always return results            | Use photos and trust signals  | Have secondary CTAs that facilitate x-device, like email or call          | Use in-line validation              |
| Use legible font sizes   |   | Include previous or top searches | Use geo info meaningfully   |   | Use the correct keypads             |
| Use social proof   |   |                                  |   |   | Use pagination or a progress bar    |
| Label the main menu  |   |                                  |   |   | Show the security of your site      |
| If calls are important, include click-to-call at the top of every page |   |                                  |   |   | Explain why personal info is needed |
|  |   |                                  |   |   | Forms can be fun                    |



All recommendations  
should be A/B tested!

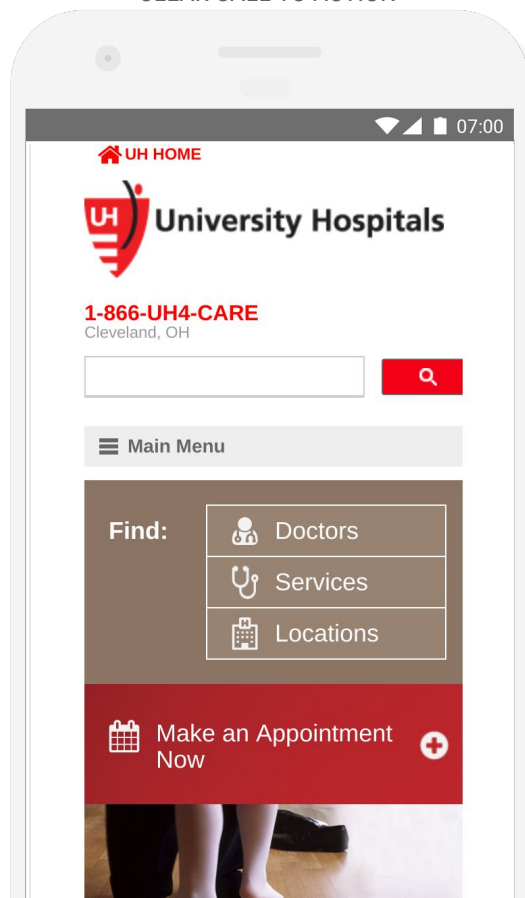
# Homepage/Landing Page

| SECTION        | Homepage/Landing Page                            | Ease of implementation | Impact | Key Metric                      |
|----------------|--|------------------------|--------|---------------------------------|
| KEY SUGGESTION | Clear CTA above the fold                         | Easy                   | High   | Clicks on CTA, Bounce rate      |
|                | Have descriptive CTAs                            | Easy                   | Medium | Clicks on CTA, Bounce rate      |
|                | Clear benefit-oriented value prop above the fold | Easy                   | High   | Bounce Rate, CVR                |
|                | Don't use full page interstitials                | Easy                   | High   | Bounce Rate                     |
|                | Remove automatic carousels                       | Easy                   | High   | Bounce Rate                     |
|                | Display top categories on homepage               | Medium                 | High   | Bounce Rate, Clicks on category |
|                | Include accolades and awards                     | Medium                 | Medium | CVR                             |
|                | Use legible font sizes (16px+)                   | Easy                   | High   | Time on site                    |

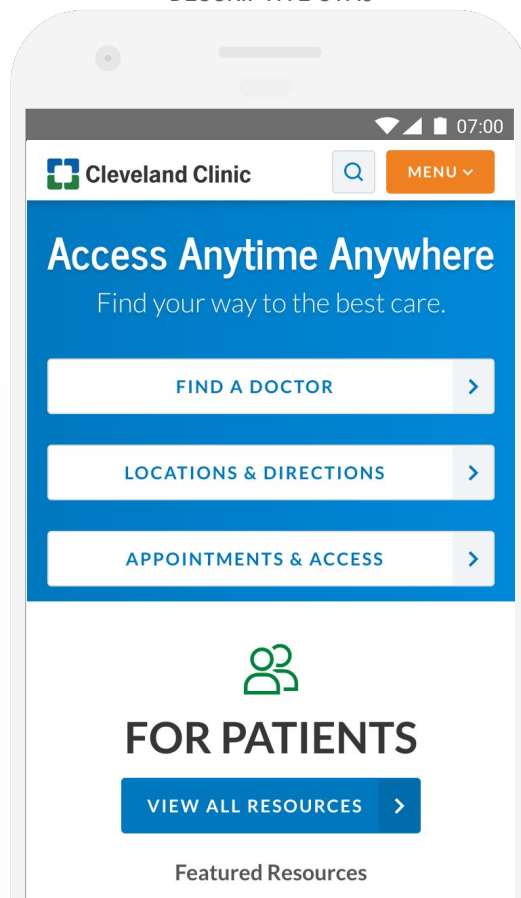
# Best in Class Home Pages

Proprietary + Confidential

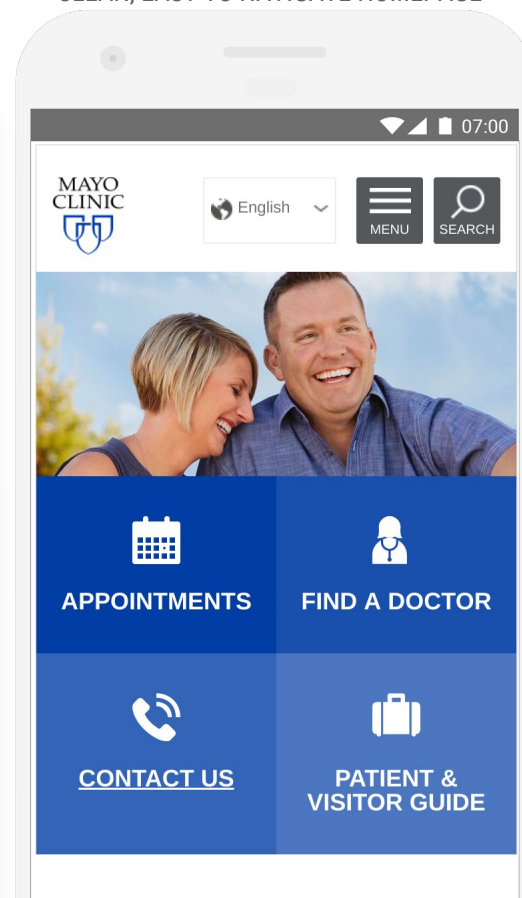
CLEAR CALL TO ACTION



DESCRIPTIVE CTAs

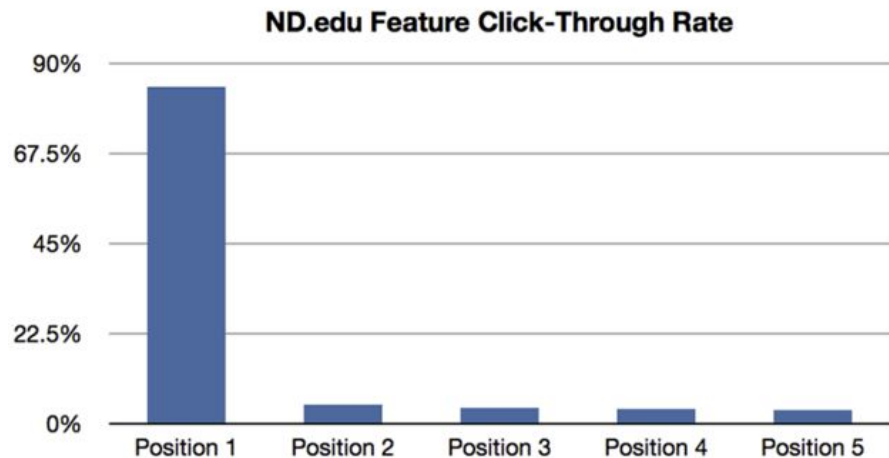


CLEAN, EASY TO NAVIGATE HOMEPAGE



# Research shows that carrousel rarely work

Proprietary + Confidential



**Luke Wroblewski**  
@lukew



Following

.@erunyon basically that data tells me don't use carousels. cc/ @brad\_frost

Reply Retweet Favorite More

Carousels can be perceived as banners and therefore will be ignored. The user should always be in control.

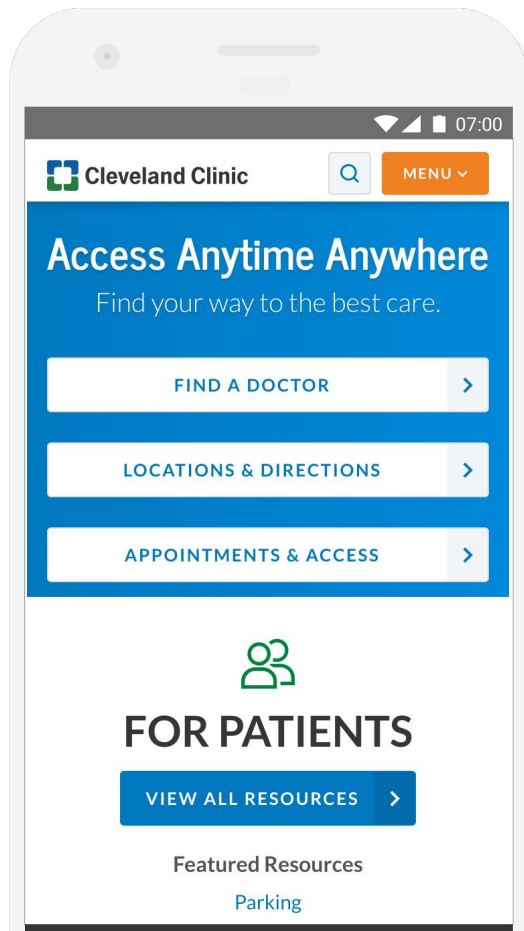
Automatic image sliders or carousels on homepage should be avoided or the frequency should be decreased.

- **Reason #1:** Human eye reacts to movement (and will miss the important stuff)
- **Reason #2:** Too many messages equals no message
- **Reason #3:** Banner blindness

RESEARCH:

[Conversion XL](#)  
[ClickZ](#)  
[Widerfunnel](#)  
[NN Group](#)  
[Erik Runyon](#)

# Homepage best-in-class : Cleveland Clinic



**UX Approach:** Deliver the most popular user intents in a clean, organized way. Leads into audience segments on scroll.

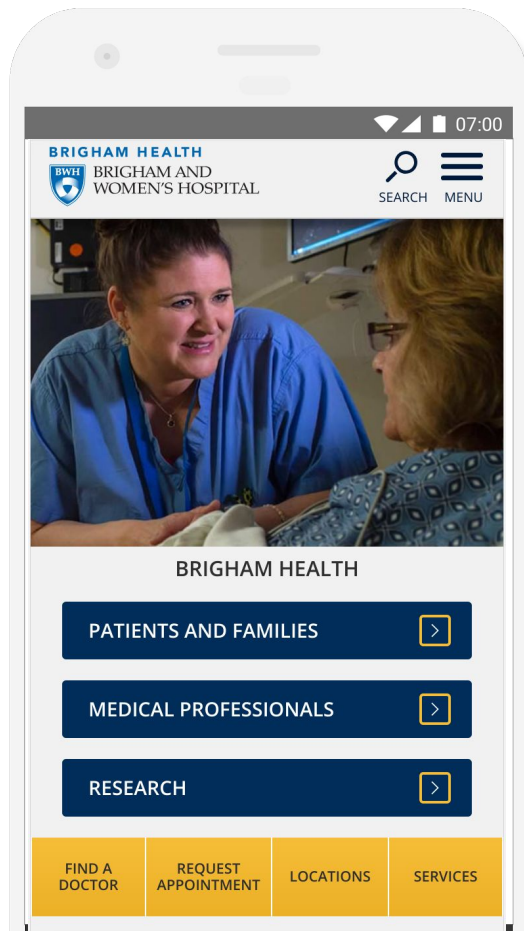
- ✓ Top categories on homepage
- ✓ Legible font sizes
- ✓ No revolving carousels
- ✓ No full page interstitials
- ✓ Clearly labeled Menu

## Further optimizations:

- Test value propositions
- Test one dominant CTA



# Homepage best-in-class : Brigham and Women's



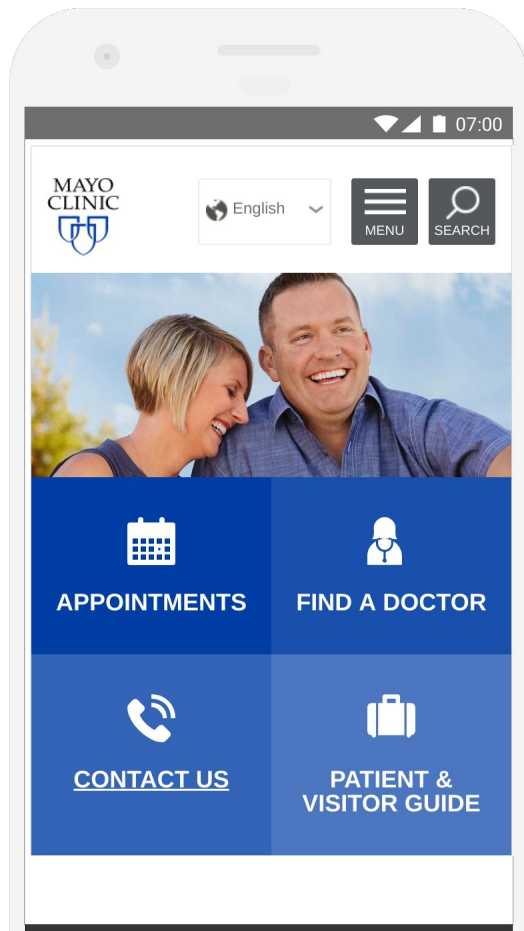
**UX Approach:** Hero image led design with priority to the different audiences and quick links to most popular intents.

- ✓ Top categories on homepage
- ✓ Legible font sizes
- ✓ No revolving carousels
- ✓ No full page interstitials
- ✓ Clearly labeled Menu and Search Icon

## Further optimizations:

- Test value propositions
- Test one dominant CTA

# Homepage best-in-class : Mayo Clinic



**UX Approach:** Minimalist design with comfortable thumb-sized buttons. Patient centered approach.

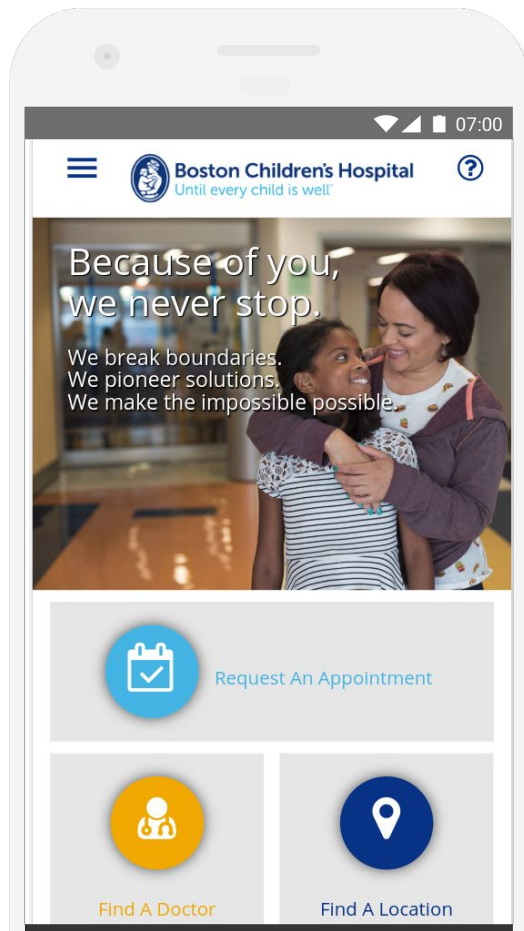
- ✓ Top categories on homepage
- ✓ Legible font sizes
- ✓ No revolving carousels
- ✓ No full page interstitials
- ✓ Clearly labeled Menu and Search Icon

## Further optimizations:

- Test value propositions
- Test one dominant CTA

# Homepage best-in-class : Boston Children's Hospital

Proprietary + Confidential



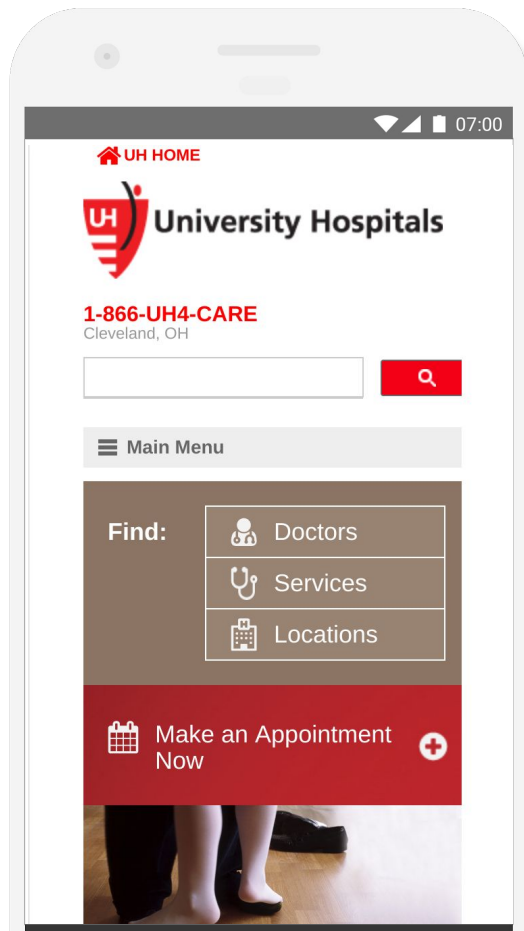
**UX Approach:** Hero image with a strong value prop followed by a dominant CTA.

- ✓ One dominant CTA
- ✓ Top categories on homepage
- ✓ No full page interstitials
- ✓ No revolving carousels
- ✓ Clear value propositions

## Further optimizations:

- Legible font sizes

# Homepage best-in-class : University Hospitals



**UX Approach:** Design centered around very prominent CTA

- ✓ Clear CTA above the fold: Make an Appointment Now
- ✓ Top categories on homepage
- ✓ Legible font sizes
- ✓ No full page interstitials
- ✓ Clearly labeled Menu and Search Icon

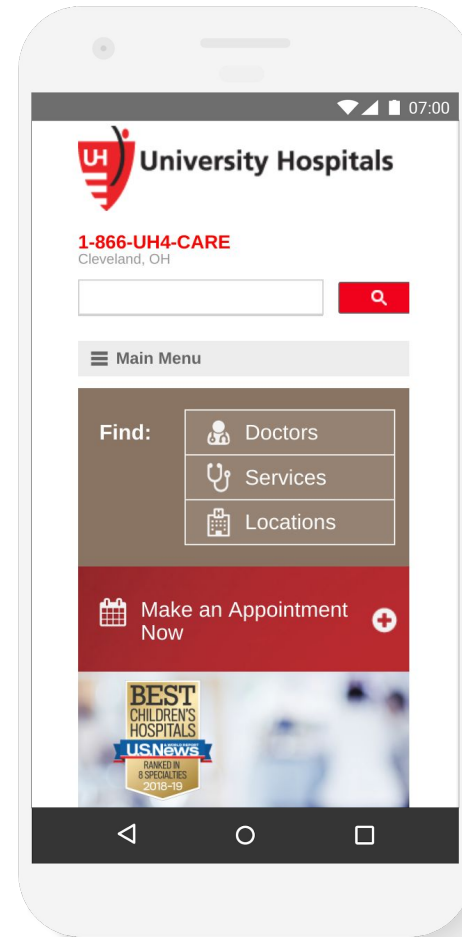
## Further optimizations:

- Add value propositions
- Remove revolving carousel
- Make phone number clickable

# Include accolades and awards



childrenshospital.org



uhhospital.org

Google

# Focusing on the Homepage

On average less than 20% of visits\* ever see the homepage, but how the homepage is organized usually dictates the priorities of the organization.

Here are some of the best practices when designing (or redesigning the home page)

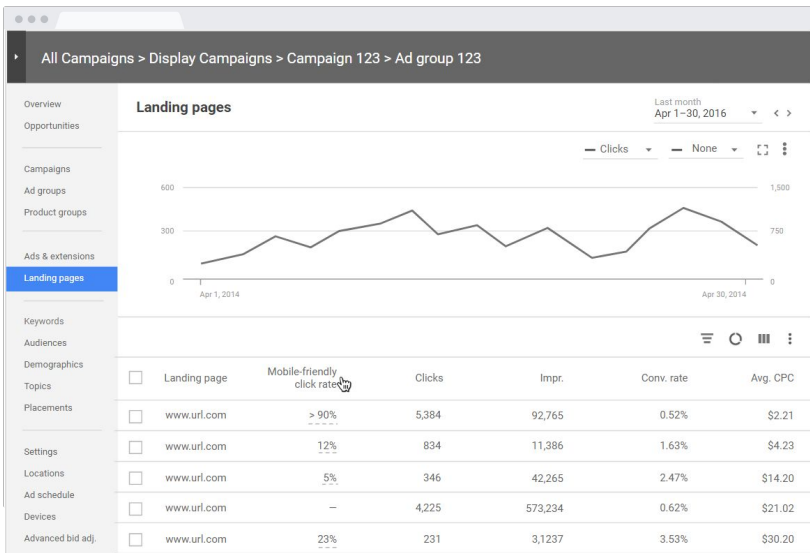
- Design mobile first
- Decide on the most important call to action and make sure that it is visually clear
- Adding personalization can be very powerful if done right, but it has many pitfalls
- Remember, designing for speed is essential to the overall website UX

# Focus your landing page on one goal

- Sending visitors from a specific ad to a generic website leads to high bounce rates and low conversion rates.
- The more targeted and specific the landing page, the better it performs.
- Make sure your landing page focuses on a single goal. It should:
  - Have a single CTA
  - Have no distracting navigation links
  - Match the visitor's search intent and ad message
  - Be personalized based on the visitor's stage in the funnel, demographics, and interests

# Use the “Landing Pages” page in Google Ads to identify low performing landing pages to prioritize your efforts

- See which landing pages are converting well and which are not, and improve the poor performing ones
- Measure key page KPIs like clicks, conversion rate and CPC
- Analyze mobile friendliness of landing pages  
(portion of traffic that goes to mobile-friendly page)





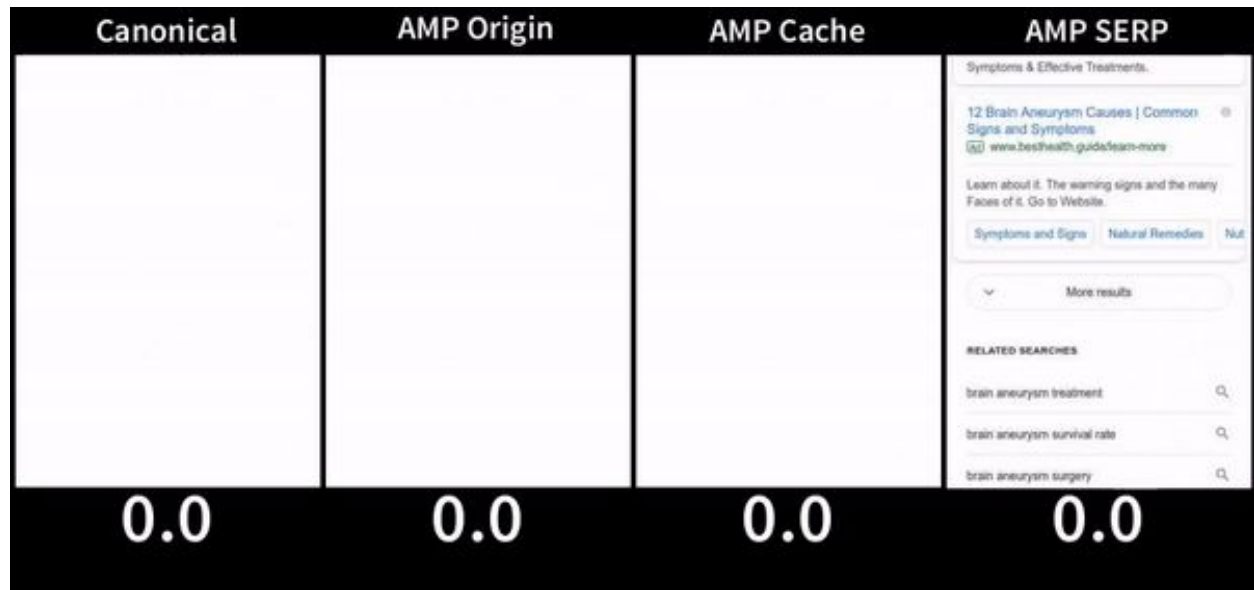
# Continuously test and improve the design and content of your landing pages

- Optimized landing pages with targeted, relevant messaging generally drive more conversions and provide higher return on ad-spend
- Optimize for conversions with A/B testing. Optimize is a free tool that integrates with Google Ads for robust landing page testing.
- Build a test plan, create variations accordingly, then test them to optimize for conversion.



# Consider creating and using AMP versions of your pages for the fastest experience

- Research shows conversions fall by 12% for every extra second a webpage takes to load.
- AMP pages load faster than all but the most highly optimized HTML pages.



<1 second  
average load time

10x less data  
Used compared to non-AMP page

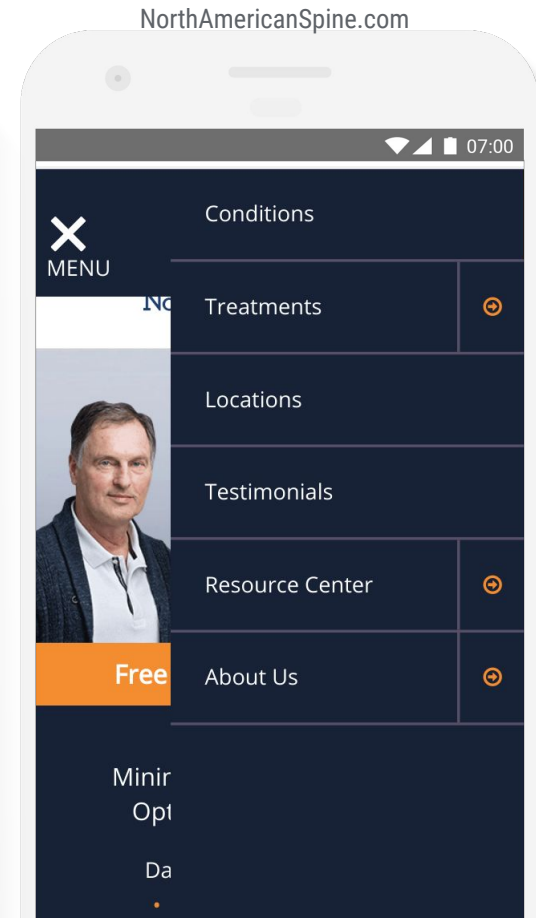
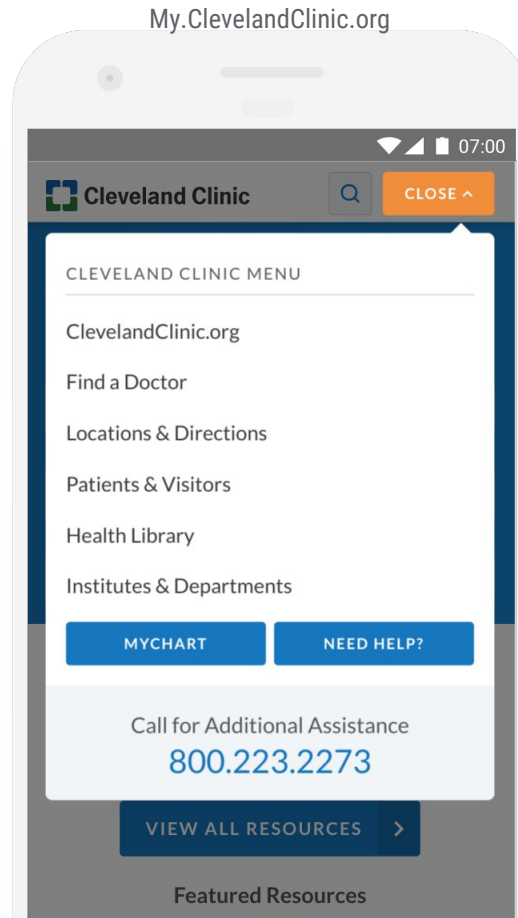
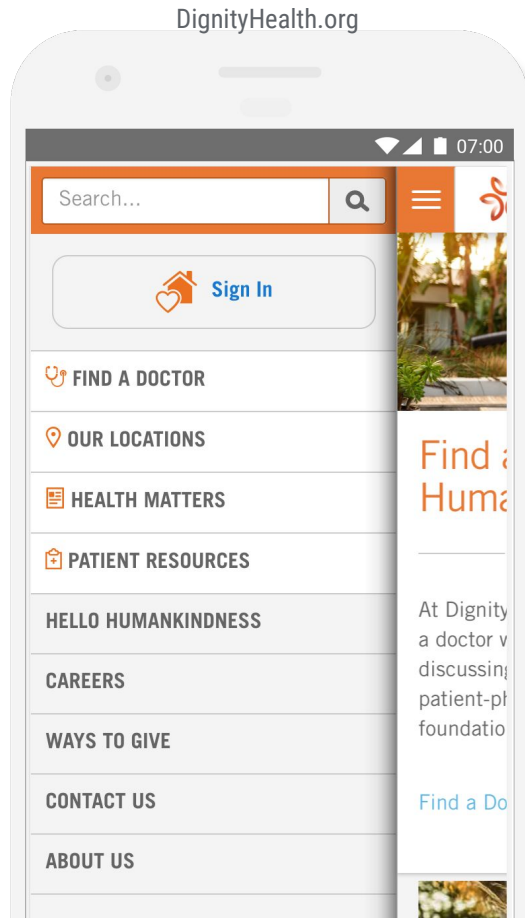


# Navigation

| SECTION        | Menu & Navigation  | Ease of implementation | Impact | Key Metric           |
|----------------|--|------------------------|--------|----------------------|
| KEY SUGGESTION | Show consolidated menu   | Medium                 | High   | Pages/visit increase |
|                | Keep menu options on one page  | Medium                 | Medium | Pages per visit      |
|                | If calls are important, include click-to-call at the top of every page             | Easy                   | High   | Clicks on icon       |
|                | If foot traffic is important, include a location button in the menu                | Easy                   | High   | Clicks on icon       |
|                | For main service lines, order by traffic volume                                    | Easy                   | Medium | Pages per visit      |
|                | If using subcategories, organize alphabetically                                    | Easy                   | Medium | Pages per visit      |
|                | Include educational content links in the menu                                      | Easy                   | Medium | Pages per visit      |
|                | Allow users to continue on another device by emailing, calling or saving for later | Medium                 | Medium | CVR                  |

# Keep menu options on one page

Proprietary + Confidential



ogle

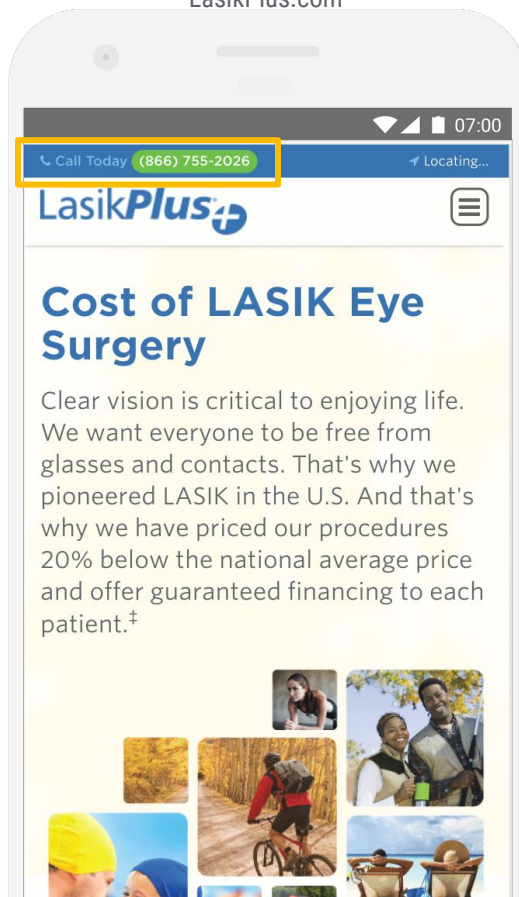
# If calls are important include click-to-call on every page

Proprietary + Confidential

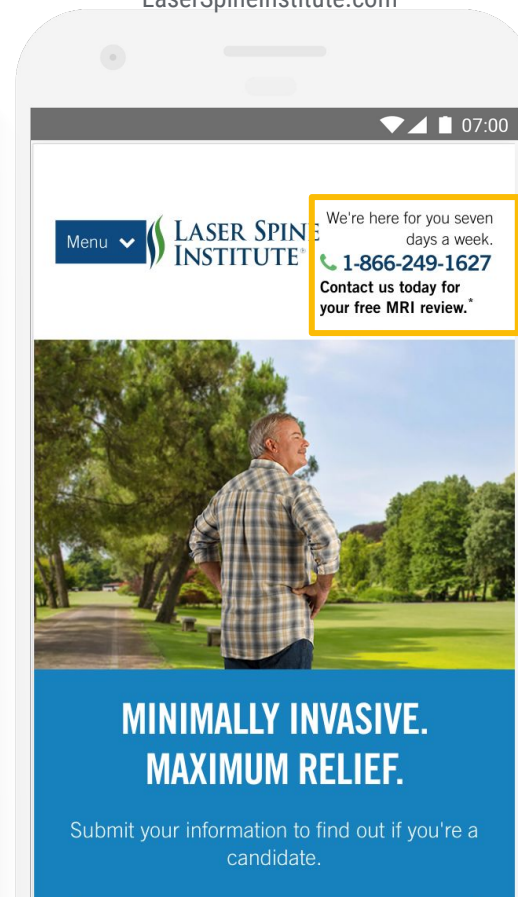
PartnersUrgentCare.org



LasikPlus.com



LaserSpineInstitute.com

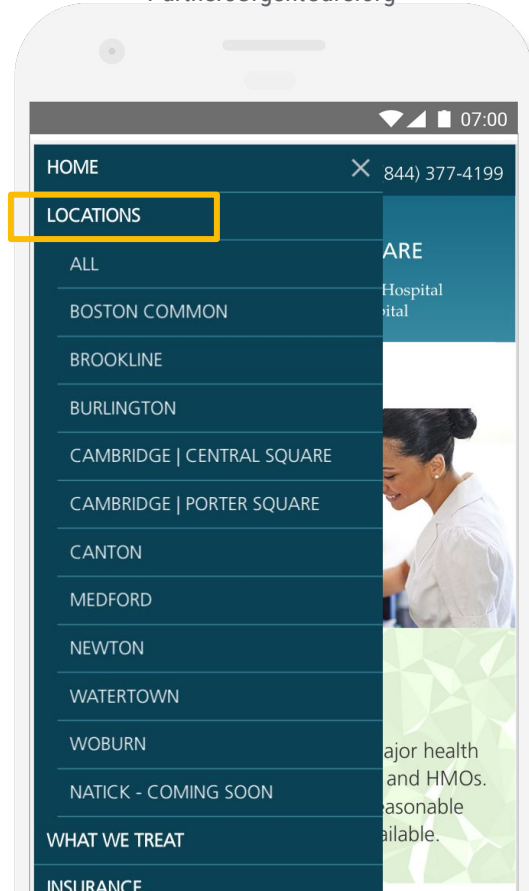


ogle

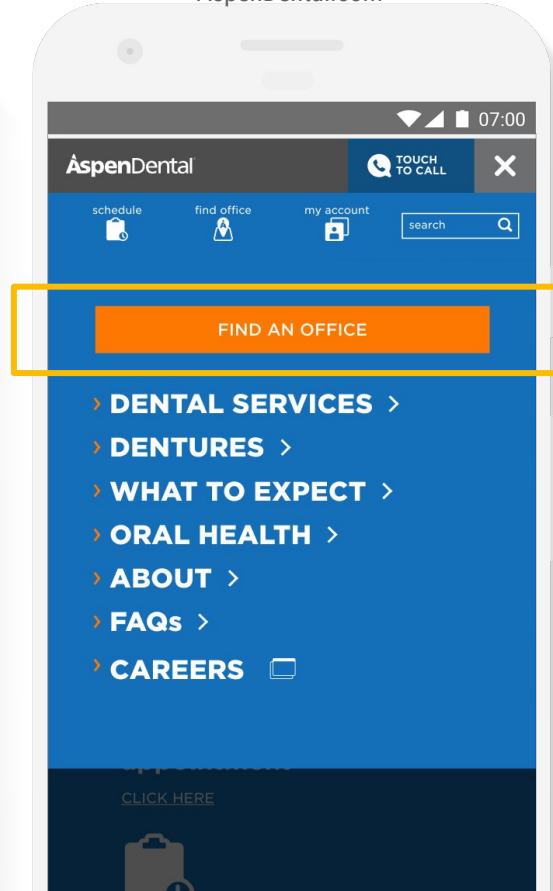
# If foot traffic is important include a location button

Proprietary + Confidential

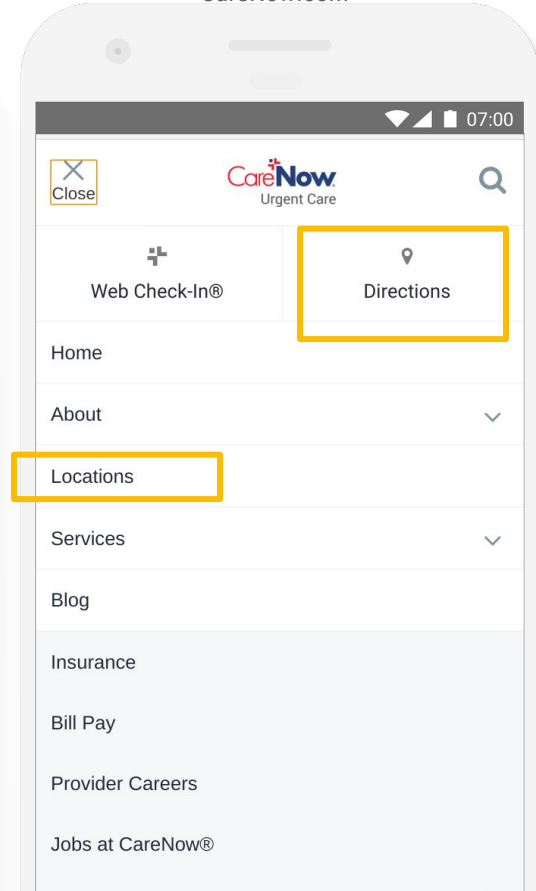
PartnersUrgentCare.org



AspenDental.com

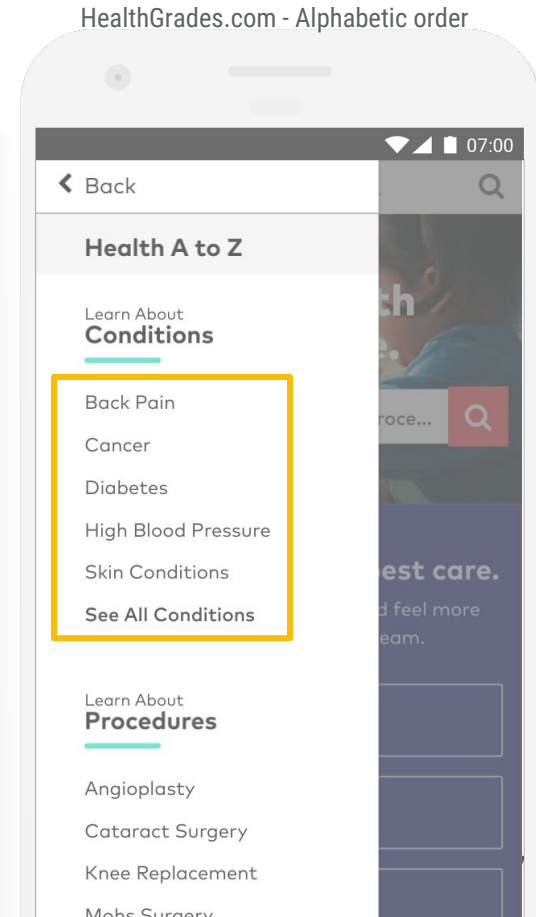
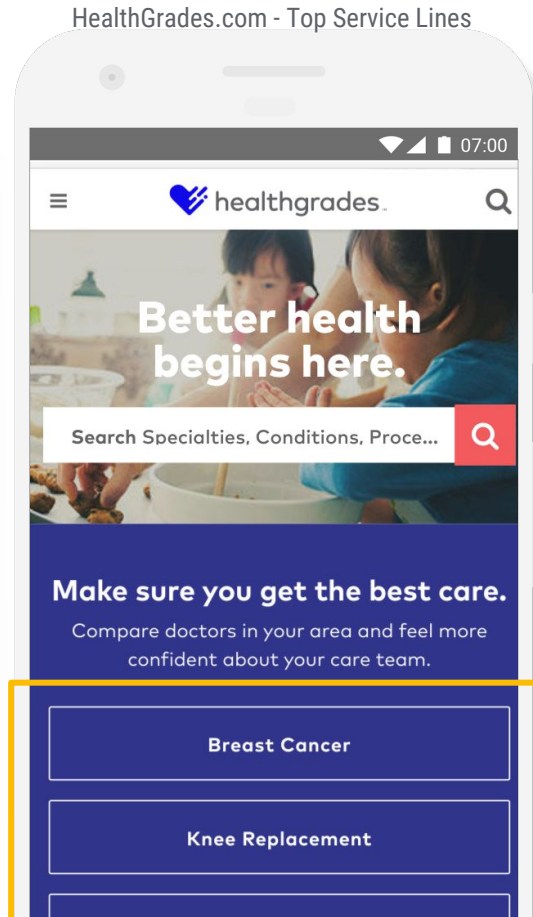
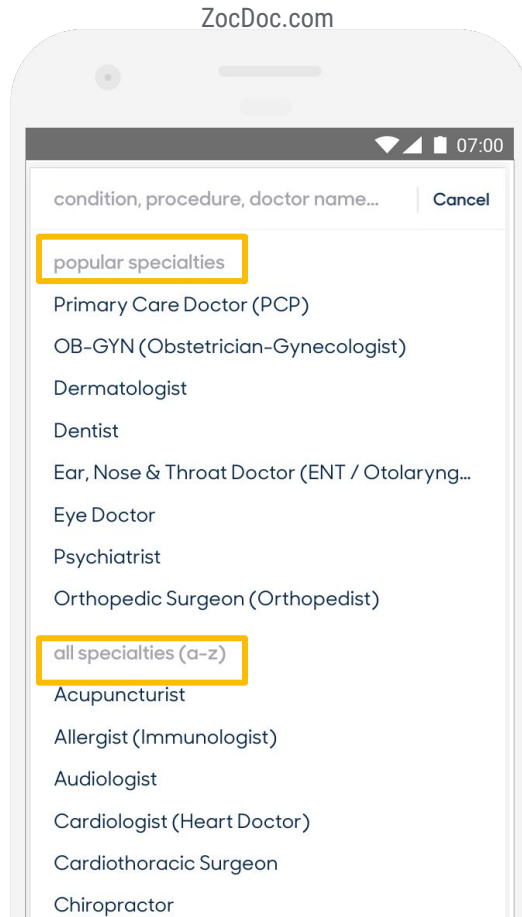


CareNow.com



# Order service lines by traffic volume, then alphabetically

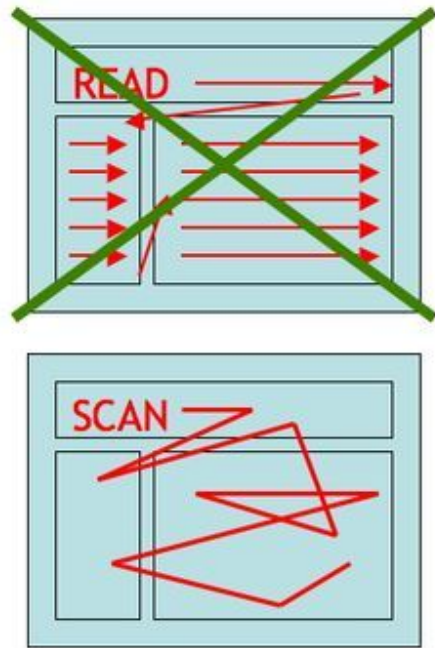
Proprietary + Confidential



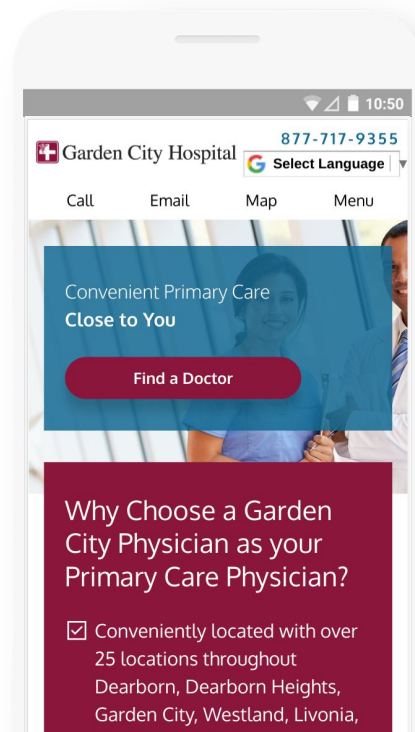
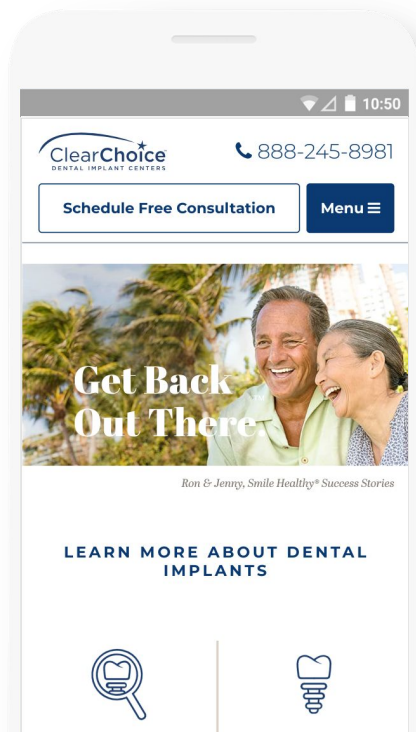


# People don't read they skim

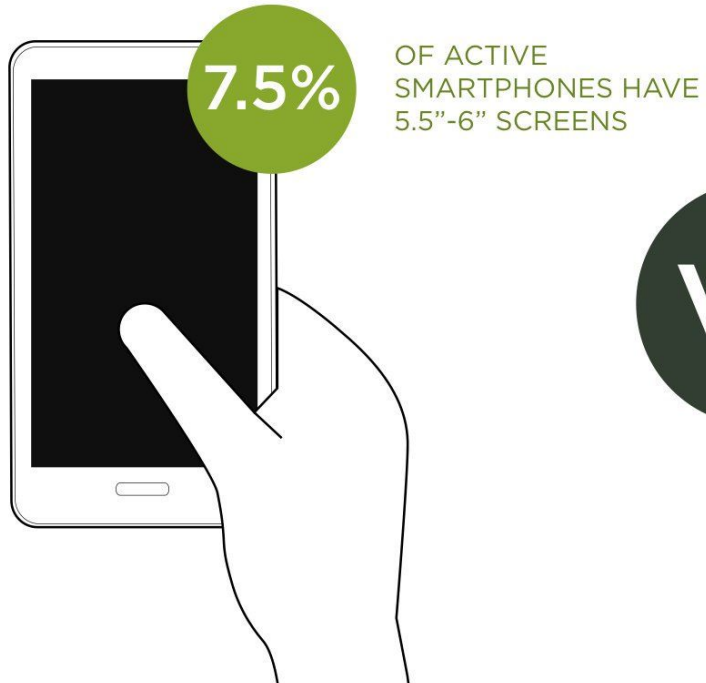
- 79% of people don't read, they just skim
- The main thing they DO read is the headline
- Keep the focus on value propositions



Ensure detailed information is readable by using bullets, headlines and mobile specific formatting

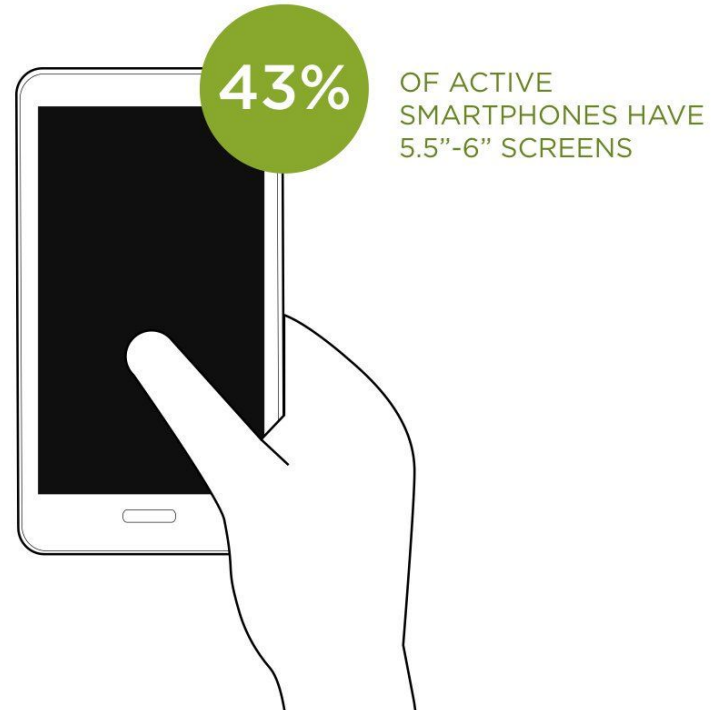


2014

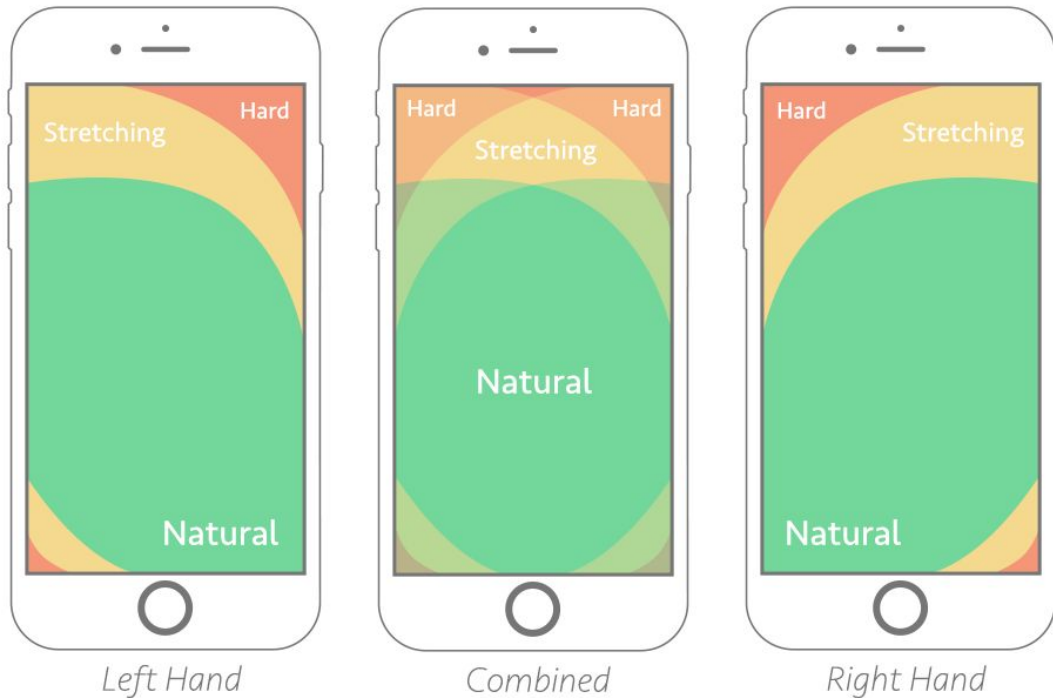


VS

2017

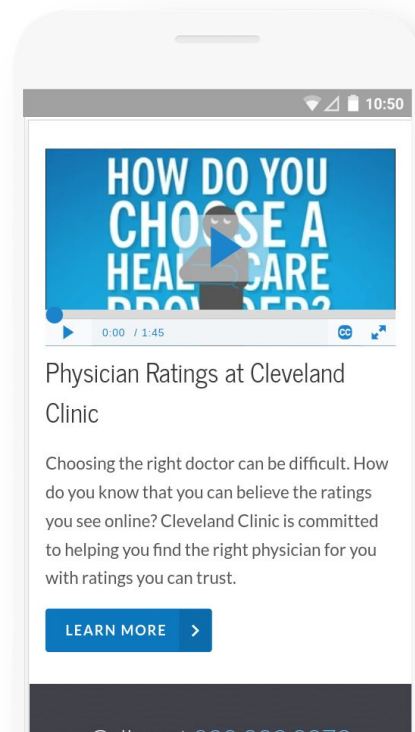
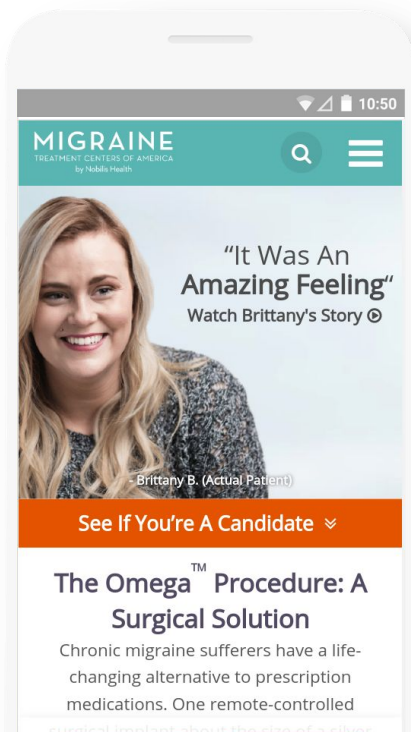
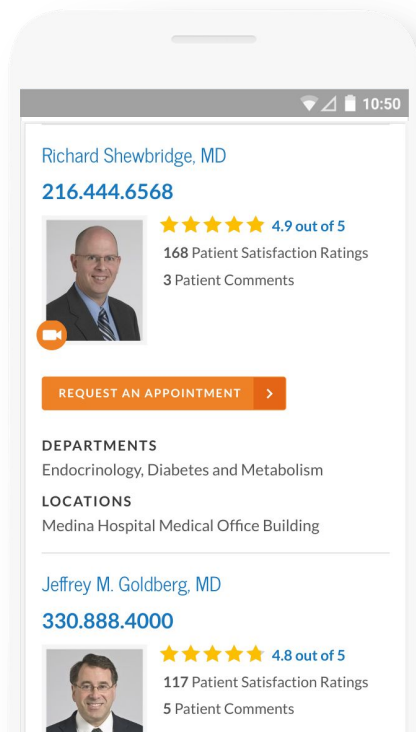


# Avoid dead ends in the user experience



# Use video as a way to educate users

**30 second video** is equivalent of **half a page of text**

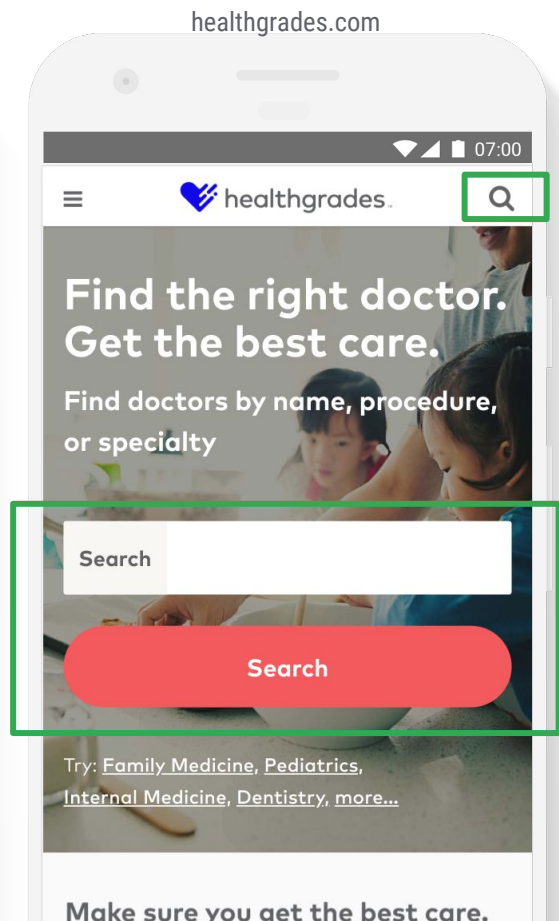
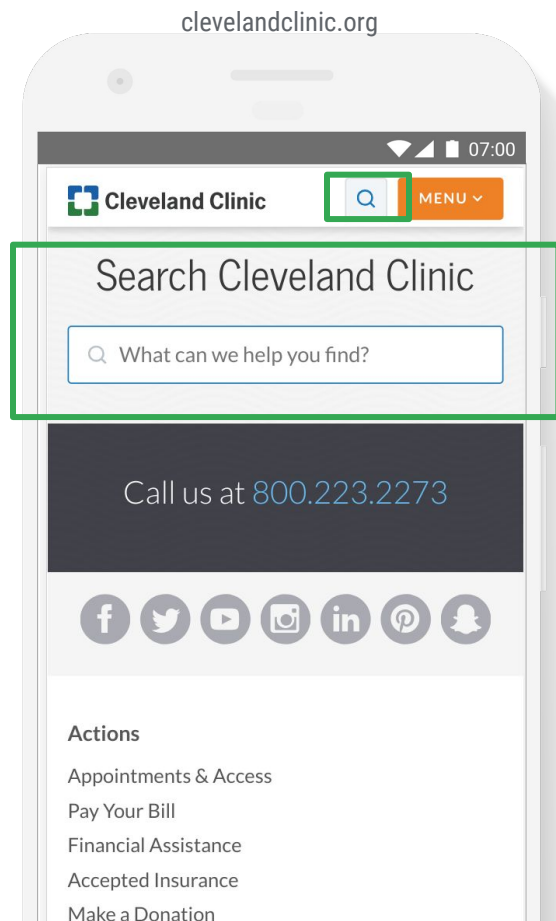


# Search

| SECTION        | Search                           | Ease of implementation | Impact | Key Metric              |
|----------------|----------------------------------|------------------------|--------|-------------------------|
| KEY SUGGESTION | Include Search                   | Medium                 | High   | Bounce rate, engagement |
|                | Make Search visible at all times | Easy                   | Medium | Bounce rate             |
|                | Use auto-suggestions             | Difficult              | High   | Bounce Rate             |
|                | Include spelling correction      | Medium                 | High   | Bounce Rate             |
|                | Always return results            | Medium                 | High   | Bounce Rate             |
|                | Show recently searched terms     | Medium                 | High   | Bounce Rate, engagement |

# Include Search functionality and make it visible at all times

Confidential

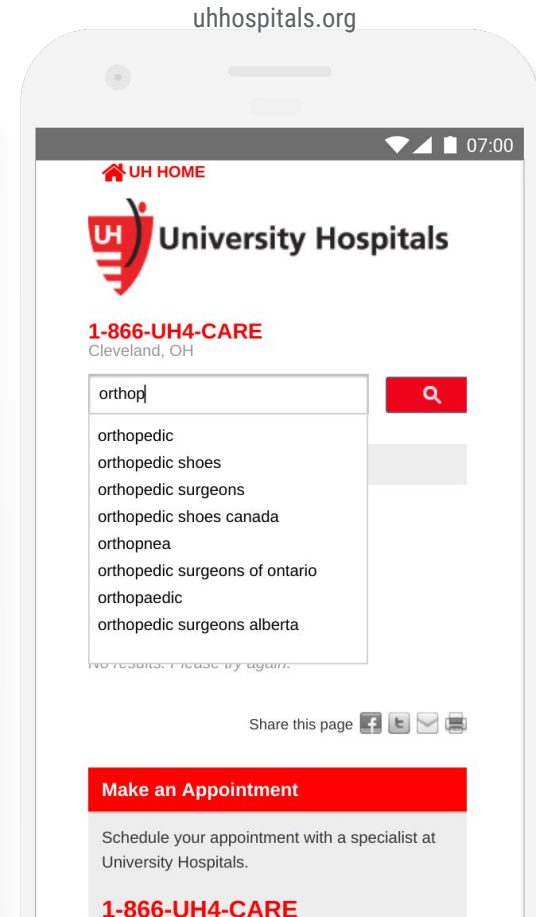
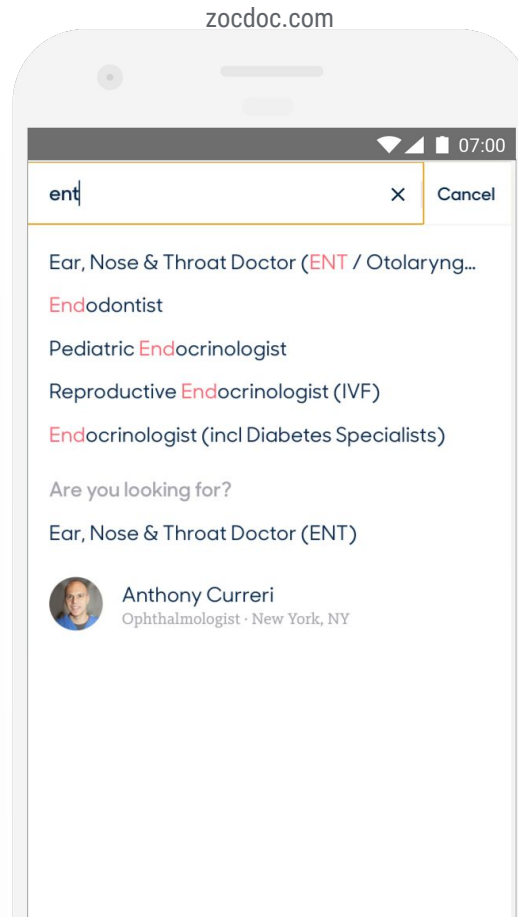
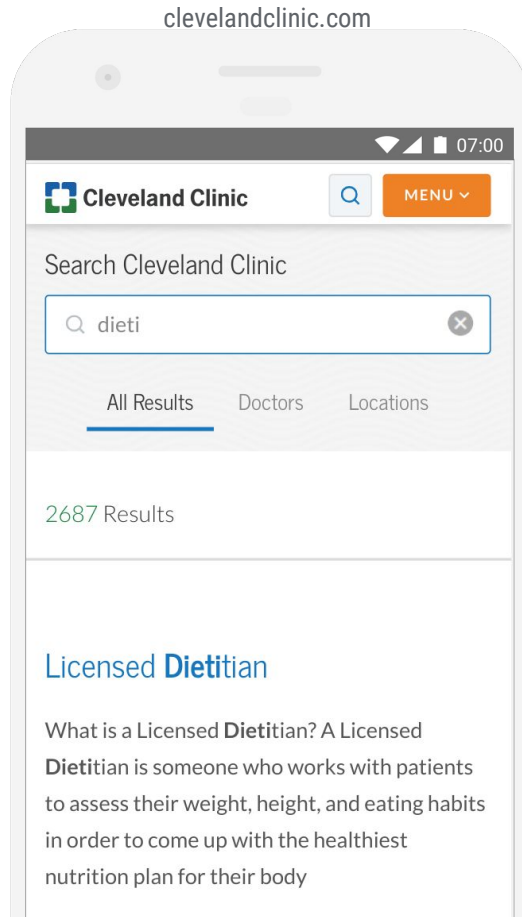


Make it easier for users to find content on your website and help them express their specific intent. By helping them navigate faster you bring them closer to converting at a higher rate.



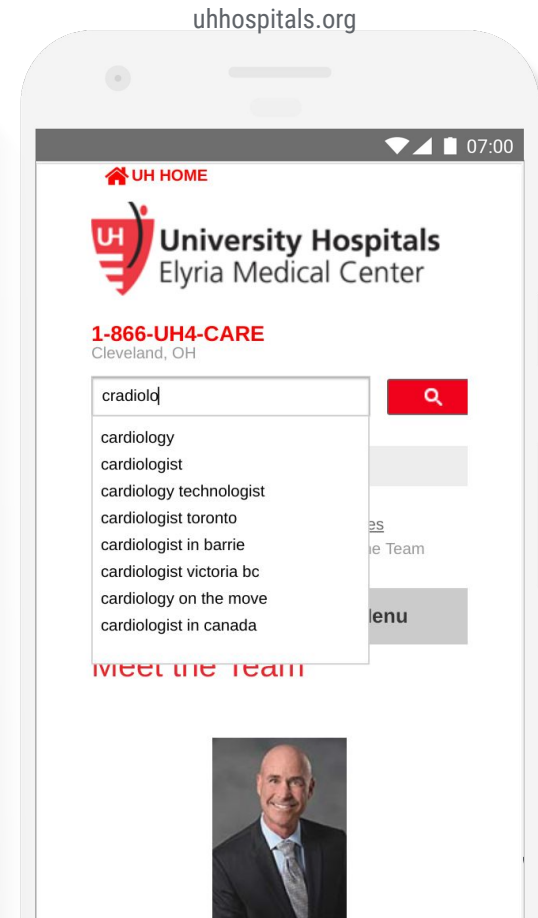
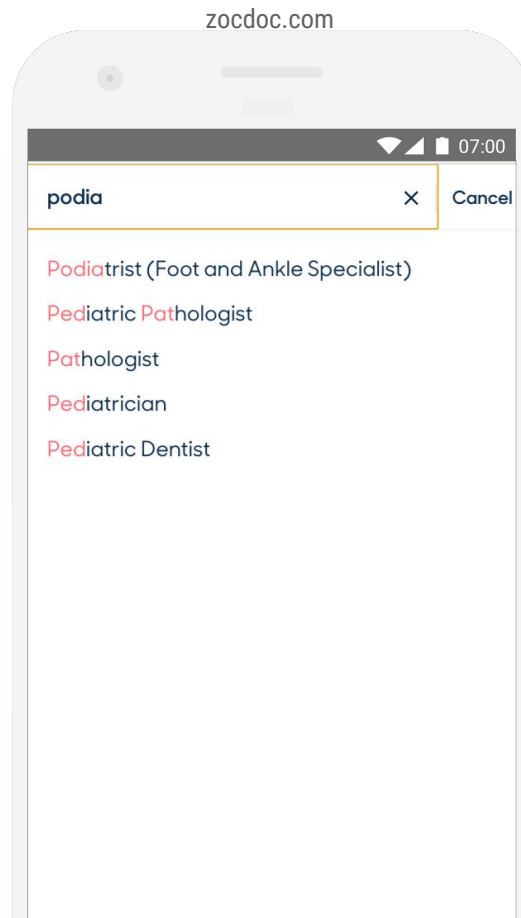
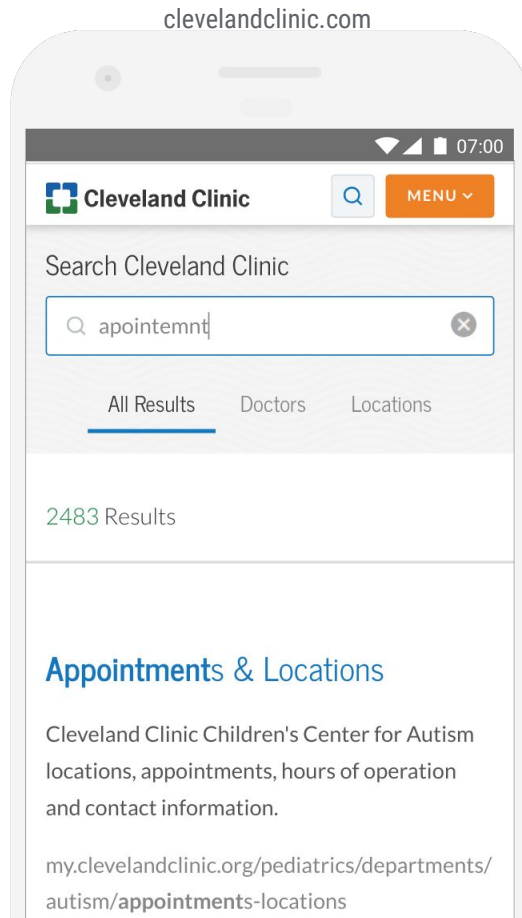
# Use auto suggestions and recently searched terms

Proprietary + Confidential



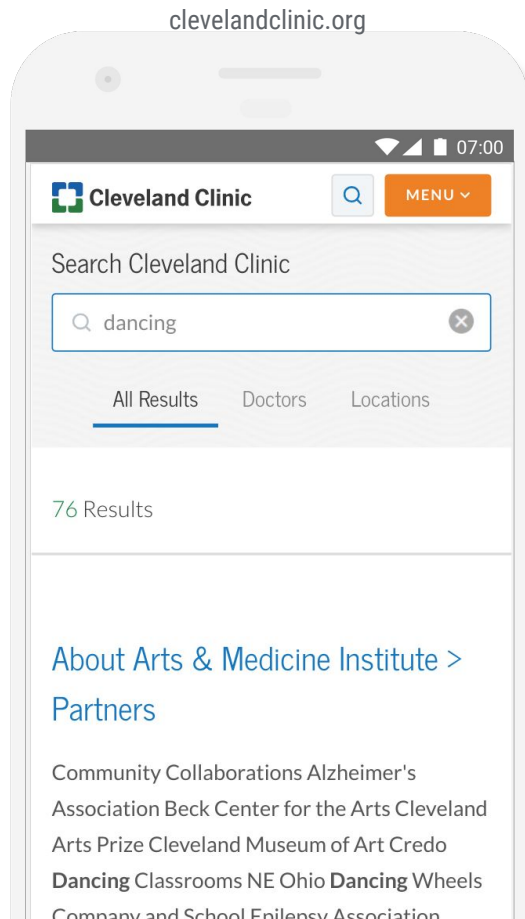
# Include spelling correction

Proprietary + Confidential



# Always return results

Proprietary + Confidential



If not used correctly site search can lead to bad user experience

- 22% of searches give zero results
- 85% of searches don't return what the user is looking for
- 80% will abandon the website



## Case studies:

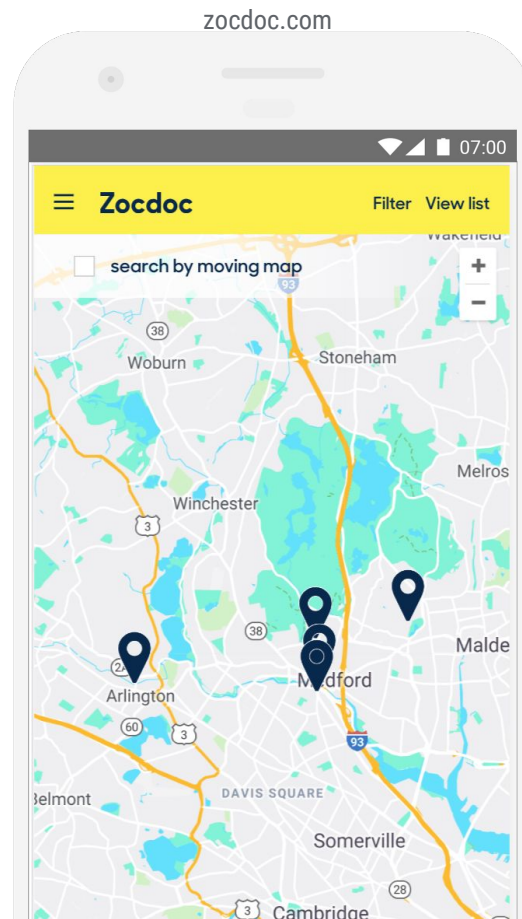
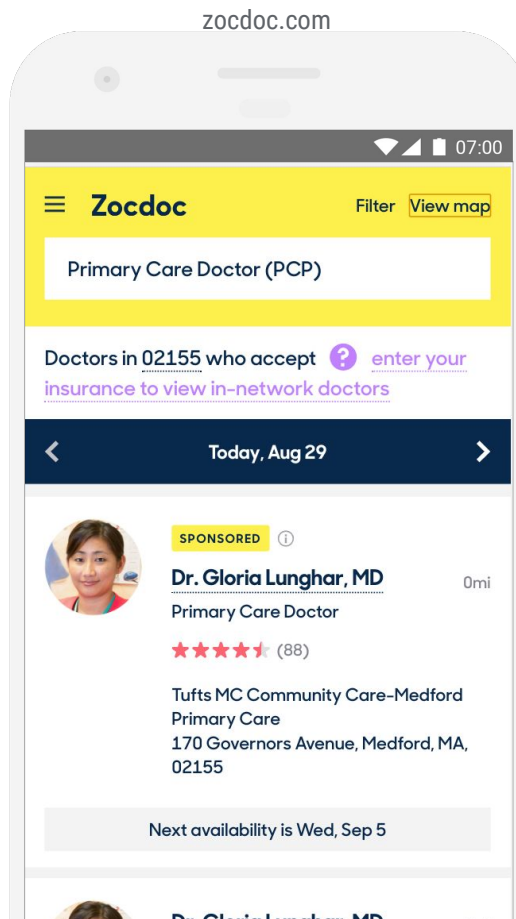
- [Lyst](#)
- [Mango](#)
- [Luisaviaroma](#)

# Locations / Doctors

| SECTION        | Locations / Doctors  | Ease of implementation | Impact    | Key Metric       |
|----------------|--|------------------------|-----------|------------------|
| KEY SUGGESTION | Use maps AND lists to let users find locations and providers | Medium                 | High      | Bounce rate      |
|                | Allow sorting and filtering                                  | Hard                   | Very high | CvR, Bounce rate |
|                | Use page real estate efficiently                             | Medium                 | High      | Bounce rate      |
|                | Use social proof: Add reviews and testimonials               | Medium                 | High      | CvR, Bounce rate |
|                | Use photos and trust signals                                 | Easy                   | High      | CVR, Bounce rate |

# Use lists AND maps to show locations

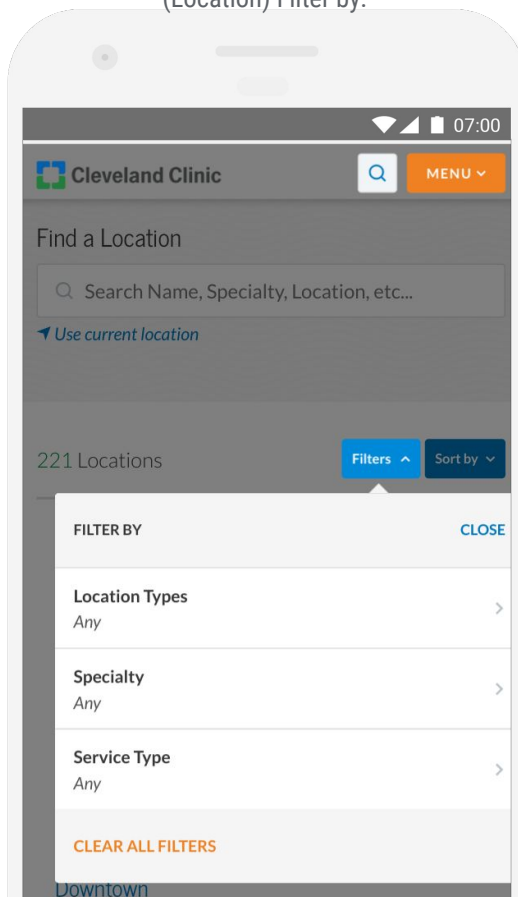
Proprietary + Confidential



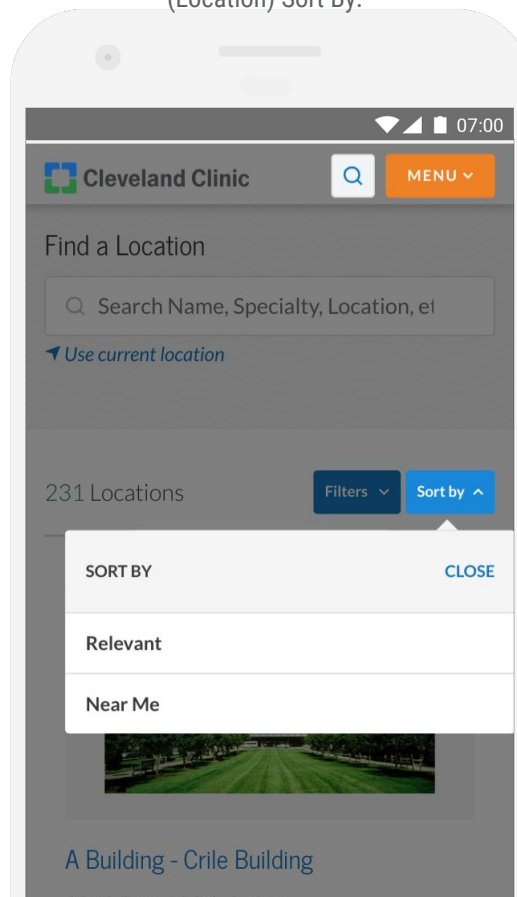
# Allow filtering and sorting

Proprietary + Confidential

(Location) Filter by:



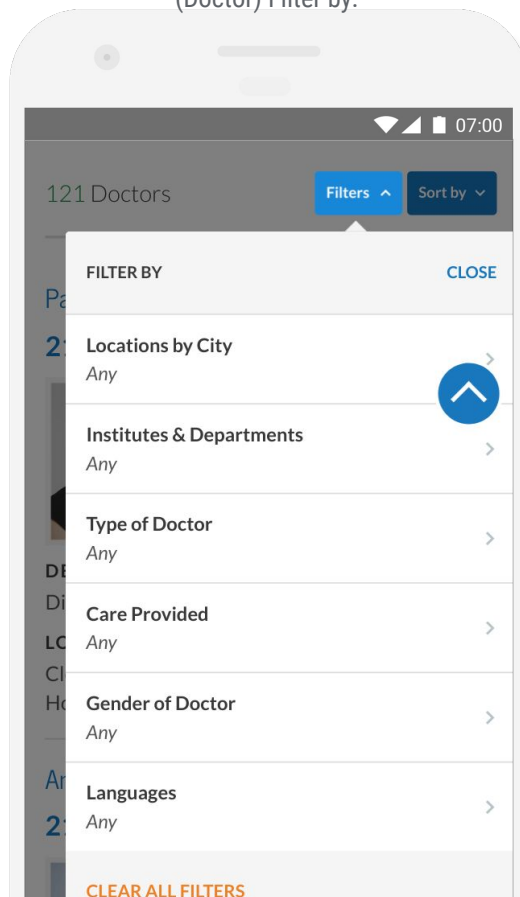
(Location) Sort By:



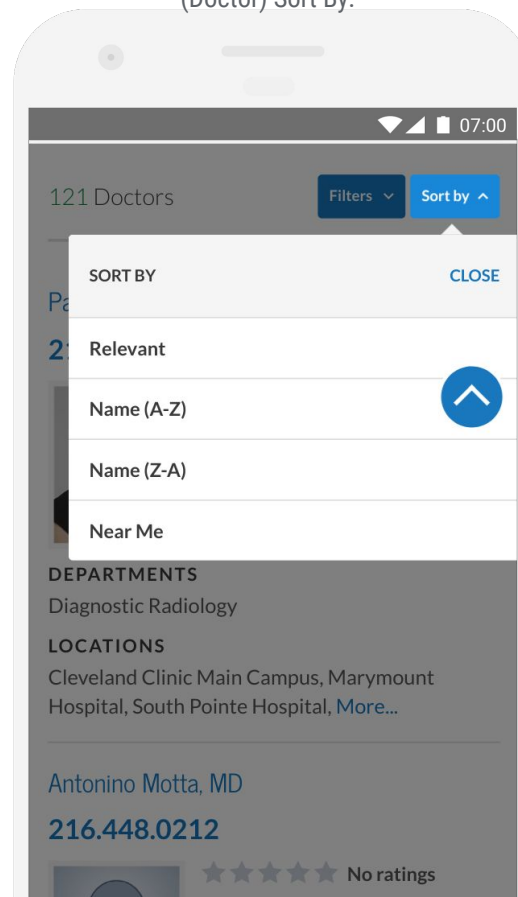
# Allow filtering and sorting

Proprietary + Confidential

(Doctor) Filter by:



(Doctor) Sort By:

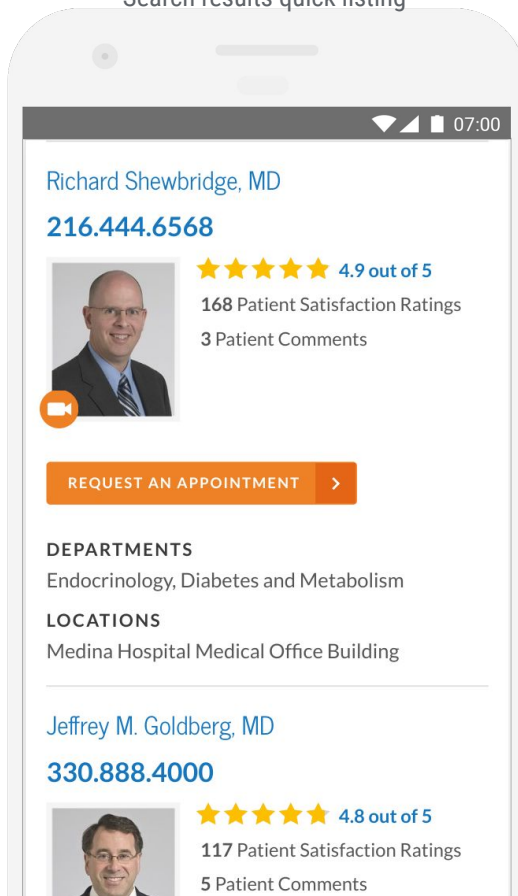




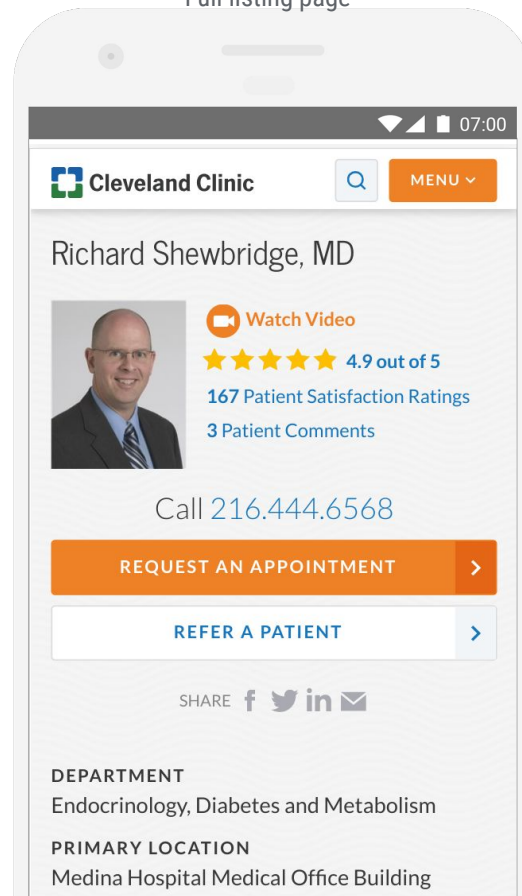
# Doctor listings best practices - use page real estate efficiently

Proprietary + Confidential

Search results quick listing



Full listing page



# Social proof works

Proprietary + Confidential

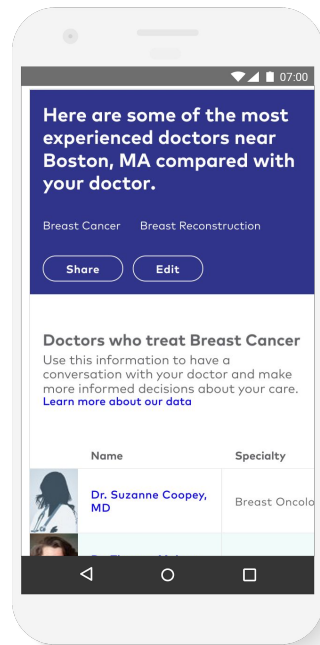
Social-psychology studies have repeatedly indicated **our conscious and unconscious reliance on each other for cues in almost all decisions that we make.**

According to a Nielsen report **70% of consumers trust consumer opinions online**

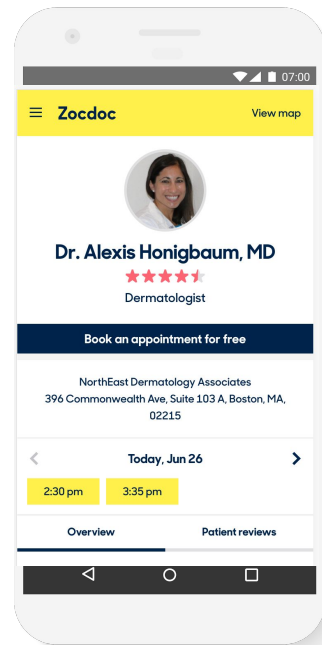
**63% of consumers say they are more likely to buy from a website that displays reviews**

Social proof can be displayed with:

- Testimonials
- Number of people using your services/products
- User or independent ratings



HealthGrades.com



Zocdoc.com

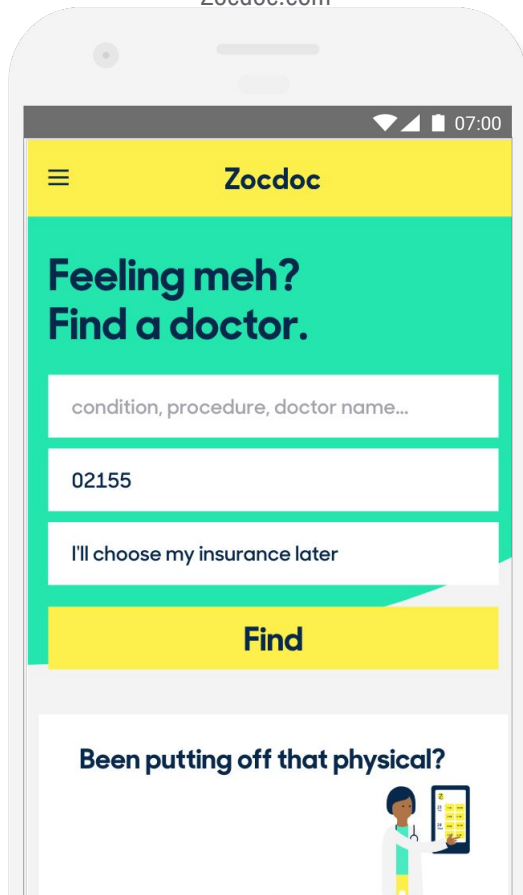
# Calls to Action

| SECTION        | Calls to Action   | Ease of implementation | Impact | Key Metric                 |
|----------------|---|------------------------|--------|----------------------------|
| KEY SUGGESTION | Clear CTA above the fold - fill out a form, call or chat - decide on a priority                   | Easy                   | High   | Clicks on CTA, Bounce rate |
|                | Have descriptive CTAs - show the user what to expect after they execute the CTA and be consistent | Easy                   | Medium | Clicks on CTA, Bounce rate |
|                | Have a clear benefit-oriented value prop above the fold at every point in the conversion flow     | Easy                   | High   | Bounce Rate, CVR           |
|                | Allow users to continue on another device by emailing, calling or saving for later                | Medium                 | Medium | CVR                        |

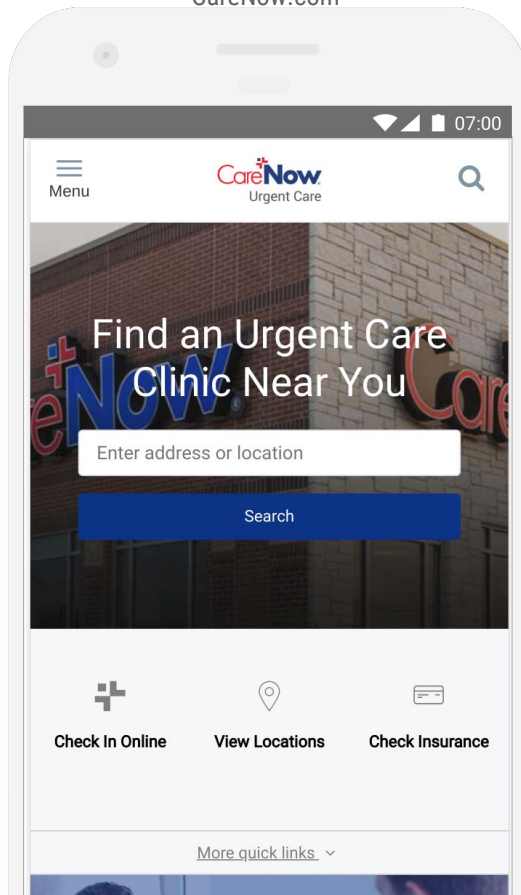
# Prioritize the most important CTA (though contrast, color, boldness

Proprietary + Confidential

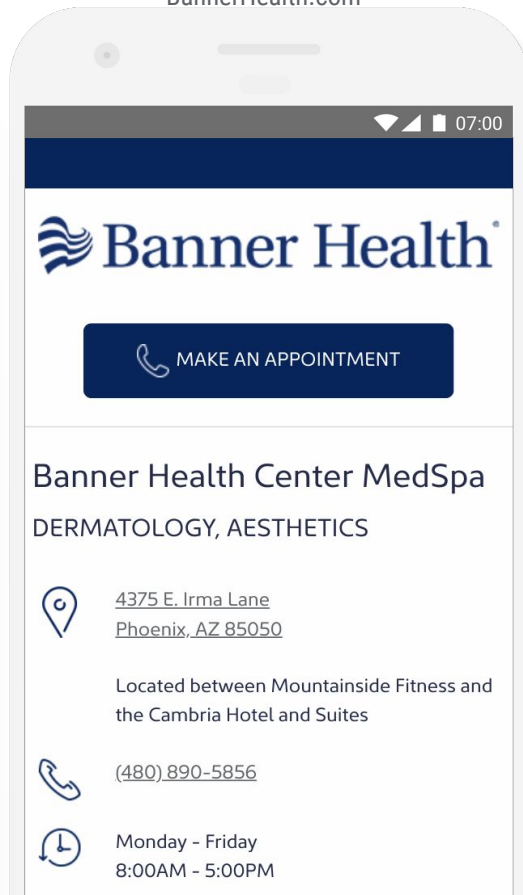
Zocdoc.com



CareNow.com



BannerHealth.com



ogle

# COLOR WHEEL

The color that contrasts best with the web page's background color is the one that will make your call-to-action button stand out on the page

Simply pick the color shown opposite to your site's background color from the color wheel and test it out



# Use “encapsulation” and “color contrast” to make the call-to-action stand out



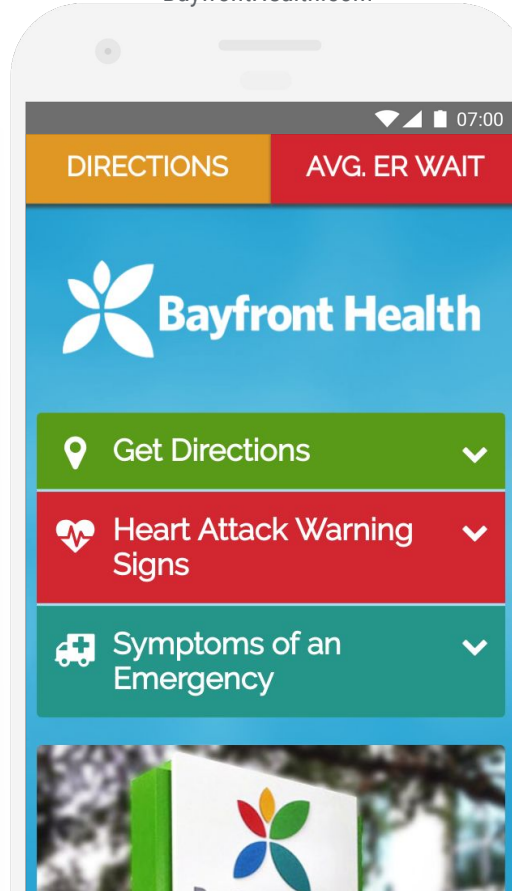
# Design CTA buttons that are easy to click on

Proprietary + Confidential

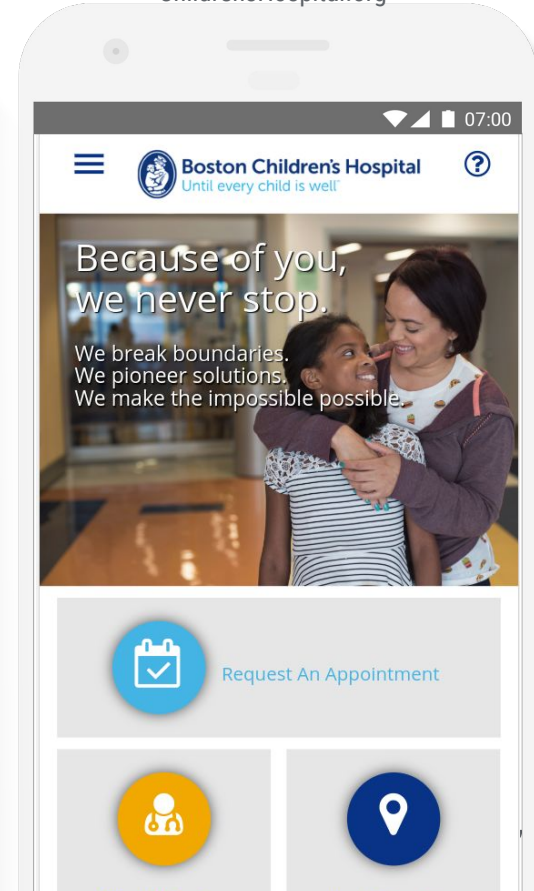
Zocdoc.com



BayfrontHealth.com



ChildrensHospital.org



ogle



# Test making 'Get started' and 'Learn more' CTAs more specific

"Get Started links are no better than login walls [...] Don't ask for too much too soon, or you risk losing people's trust."<sup>1</sup>

"Like its relative Learn More, the link text *Get Started* is too generic to stand on its own and can be interpreted in many ways. If you want to provide an entry point into a process, whether it's a quiz or sales funnel, **avoid a generic call-to-action and increase the information scent by stating precisely what users should expect.**"<sup>1</sup>

Benefits of making CTAs more descriptive<sup>2</sup>

- Links will be more accessible
- Links will be more enticing to users and potentially more persuasive.
- Users will feel more confident as they click from page to page.
- More keywords on the page will help search-engine optimization.
- Meaningful links will stand alone and help users who are scanning the page.

# Benefit oriented calls to action

**Highlighted urgency** - BettingExpert.com tweaked the form copy (headline & button text)

Original: Sign Up

Test: Sign Up & Get the Best Daily Tips

**Result: 33% increase in membership signups**

Case study link

**Control:**

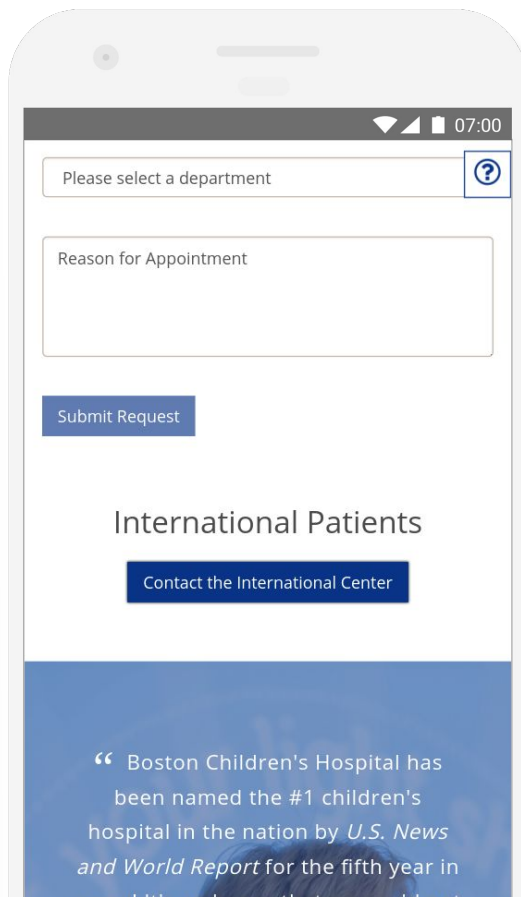
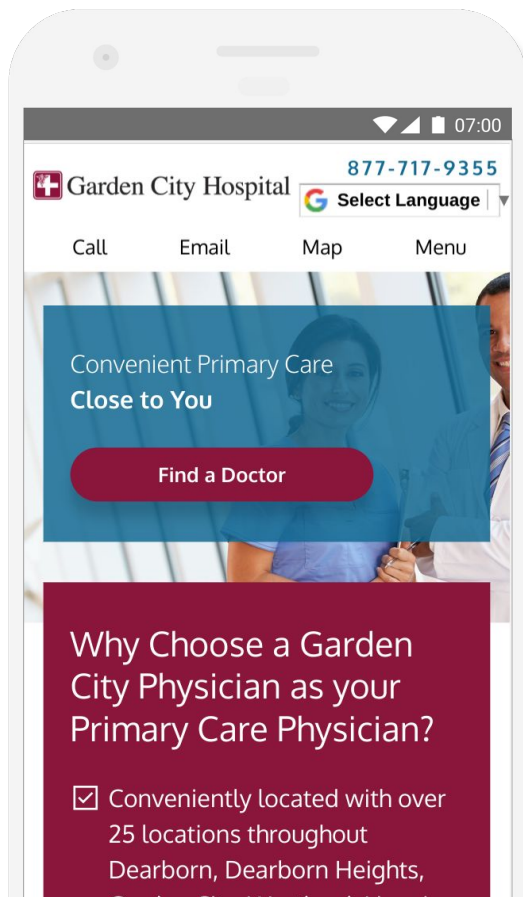
**Treatment:**

**Before**

**After**

# Display a value prop at every stage of the funnel

Proprietary + Confidential



Value proposition is a clear statement that:

- explains your approach to healthcare
- delivers specific benefits
- tells the ideal patient or caregiver why they should use your service and not from the competition

# Form Optimization

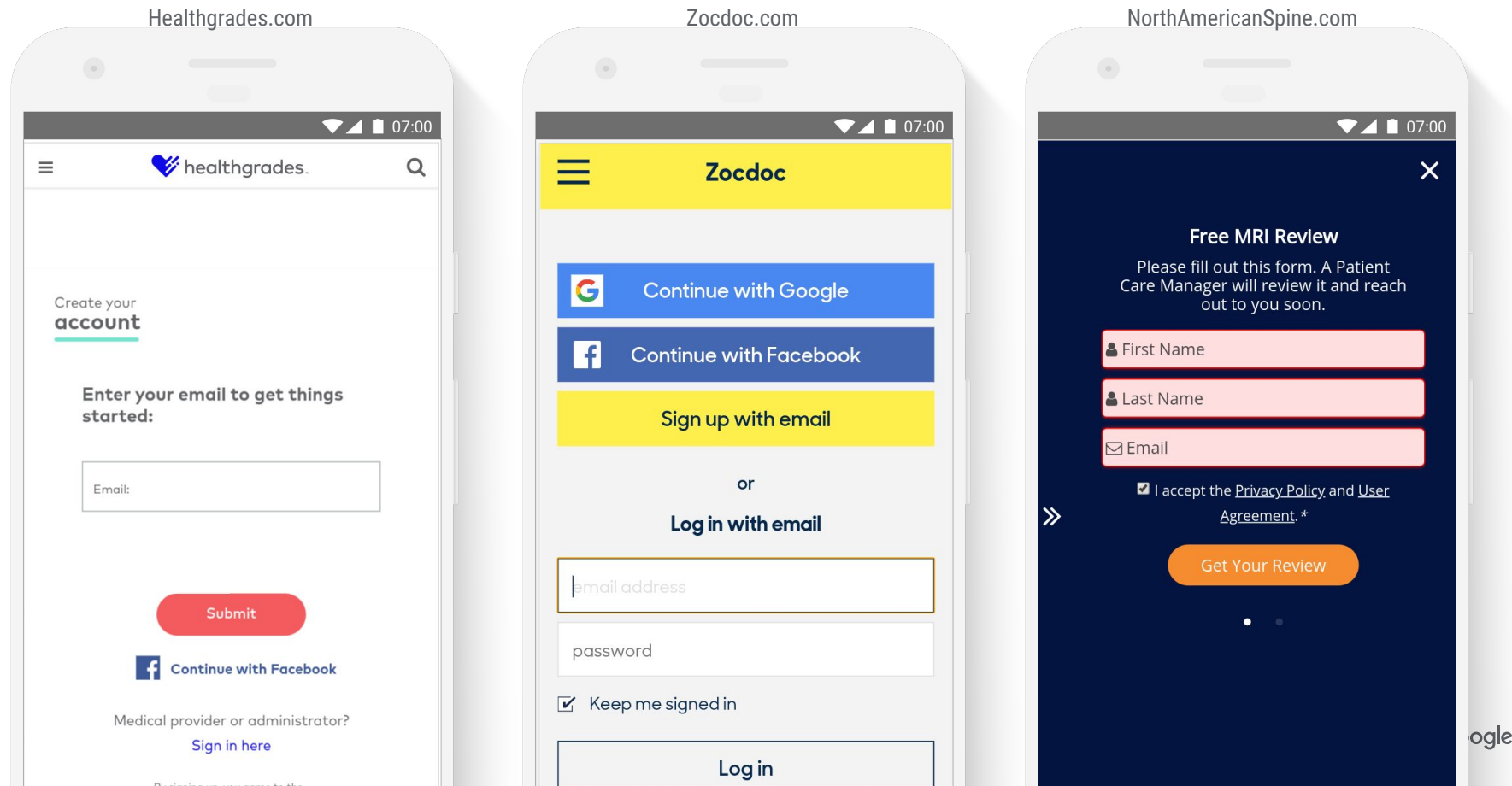
| SECTION        | Homepage/Landing Page               | Ease of implementation | Impact | Key Metric                      |
|----------------|-------------------------------------|------------------------|--------|---------------------------------|
| KEY SUGGESTION | Reduce the number of fields         | Hard                   | High   | CVR, Bounce rate                |
|                | Label and name inputs properly      | Easy                   | Medium | CVR, Bounce rate                |
|                | Use placeholders                    | Easy                   | High   | Bounce Rate, CVR                |
|                | Use autofill                        | Medium                 | High   | Bounce Rate                     |
|                | Use in-line validation              | Easy                   | High   | Bounce Rate                     |
|                | Use the correct keypads             | Medium                 | Medium | Bounce Rate, Clicks on category |
|                | Use a progress bar or pagination    | Easy                   | Medium | CVR                             |
|                | Limit exit points                   | Easy                   | High   | Time on site                    |
|                | Show the security of your site      | Easy                   | Low    |                                 |
|                | Explain why personal info is needed | Easy                   |        |                                 |
|                | Forms can be fun                    |                        |        |                                 |

Typing on mobile **is hard**

Proprietary + Confidential

# Reduce the number of fields

Proprietary + Confidential



# Reduce the number of fields

Fewer fields mean fewer opportunities for a mistakes on mobile devices.

In a recent study done on finance websites we found that mobile sites that require consumers to fill in 0-10 fields to complete an application **had a 72% higher conversion rate** than the average Finance mobile site (on average, Finance mobile sites require consumers to fill in 26 fields to convert).

- Remove all optional fields
- Consider using full name instead of first and last
- Use zip code to populate city and state

Online Appointment Request

**MyChart** means: You may use your account to request or schedule appointments online. Login to MyChart

Please note: We cannot process emergency requests through this form. If you are experiencing a medical emergency, please call 911.

This form cannot be used to schedule same-day appointments. For same-day appointments in Cleveland, please call 216.686.0446.

To schedule an appointment by phone, please contact the appropriate office:

Cleveland: 888.333.5273 (24 hours/day, 7 days/week)  
Phoenix: 877.686.2010 (9 a.m. - 6 p.m. ET weekdays)  
Canada: 888.337.6885 (7 a.m. - 5:30 p.m. ET weekdays)  
Mexico: 702.463.6900 (9 a.m. - 5 p.m. PT weekdays)

1 Patient & Appointment Information 2 Referring Physician & Health Insurance

Information on this page is secure. We value your privacy.

Indicates a required field.

**Patient Information:** (You will be asked to verify this information with the physician.)

Title:

First Name:

Middle Name:

Last Name:

Maiden Name:

Suffix or Professional title:

Gender:

Marital Status:

Date of Birth (mm/dd/yyyy):

Social Security Number (last 4 digits):

Country:

Address Line 1:

Address Line 2:

City:

State or Province:

ZIP or Postal Code:

(Tip: Use Address Line 2 if more than 25 characters required in Address Line 1)

**Patient Information**

Please provide patient information as it appears on legal documents.

**Have you previously received care at Mayo Clinic?**

☐ Yes

☐ No

☐ Don't know

**Legal first name:**

**Legal middle name:**

(optional)

**Legal last name:**

**Other name(s) use:**

(optional)

(Example: Maiden name)

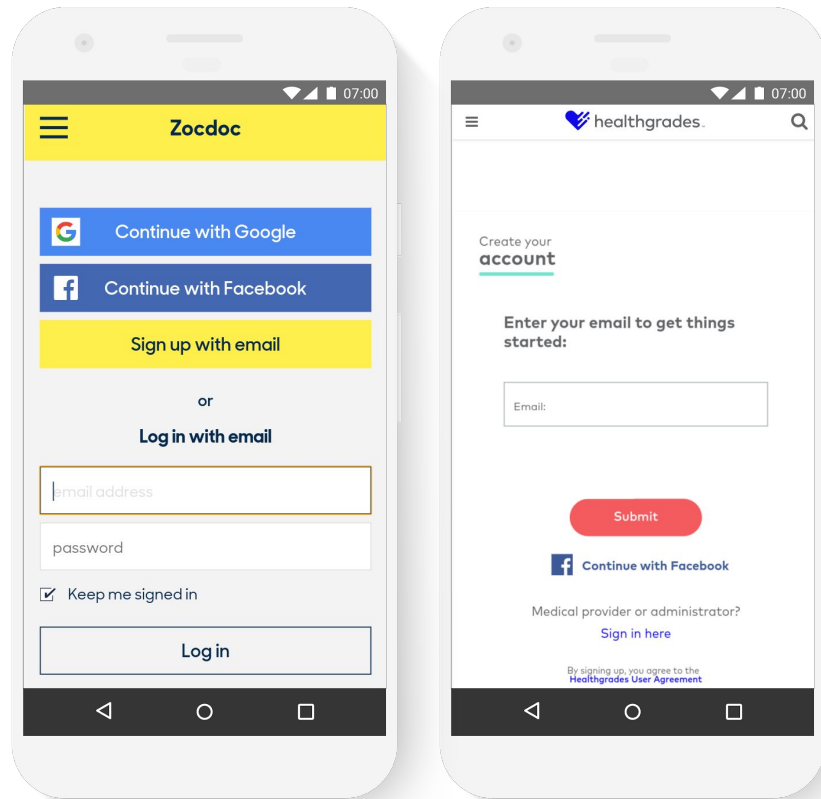
**Address:**



# Allow Social Sign-in

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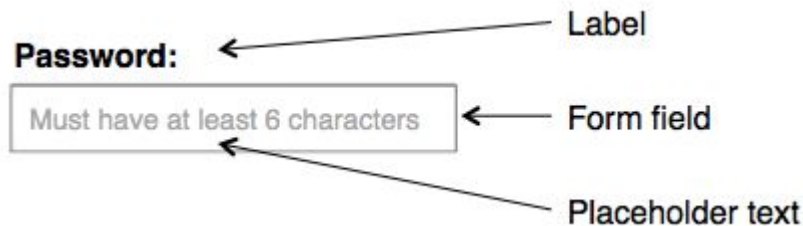
Websites with a Google or Facebook login have a 23% higher conversion rate than the average mobile site.



Source: Google/Verto, "Why Mobile Site UX Matters", analysis of a sample of the highest reaching mobile sites in terms of monthly unique visitors across Finance, eCommerce and Travel using Verto's Syndicated Data in 2017, n=254, U.S., March 2018.

# Label and name inputs properly

- Always use labels on form inputs, and ensure they're visible when the field is in focus.
- Use placeholders to provide guidance about what you expect.
- To help the browser auto-complete the form, use established **name's** for elements and include the **autocomplete** attribute.

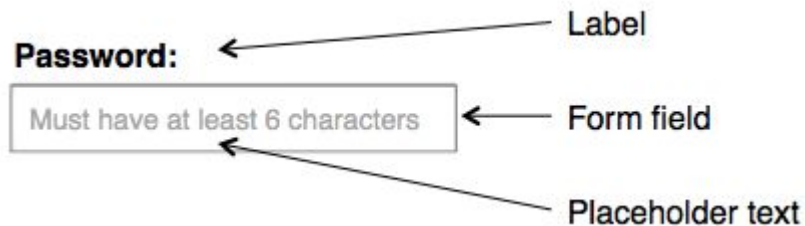


# Use placeholders

The placeholder attribute provides a hint to the user about what's expected in the input, typically by displaying the value as light text until the user starts typing in the element.

```
<input type="text" placeholder="MM-YYYY" ...>
```

**Caution:** Placeholders disappear as soon as the user starts typing in an element, thus they are not a replacement for labels. They should be used as an aid to help guide users on the required format and content.



# Use placeholders

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NorthAmericanSpine.com

Free MRI Review

Please fill out this form. A Patient Care Manager will review it and reach out to you soon.

First Name

Last Name

Email

☒ I accept the [Privacy Policy](#) and [User Agreement](#). \*

Get Your Review

ChildrensHospital.org

2. Contact Information

First Name

Last Name

Email Address

Phone Number

☐ It's okay to leave me a message

3. Appointment Details

Please select a department

Reason for Appointment

Zocdoc.com

Create a password

At least 8 characters long

Password rules

- Has at least 8 characters
- Has letters, numbers, and special characters
- Not easy to guess

Your name

First Last

Date of birth

MM DD YYYY

Sex

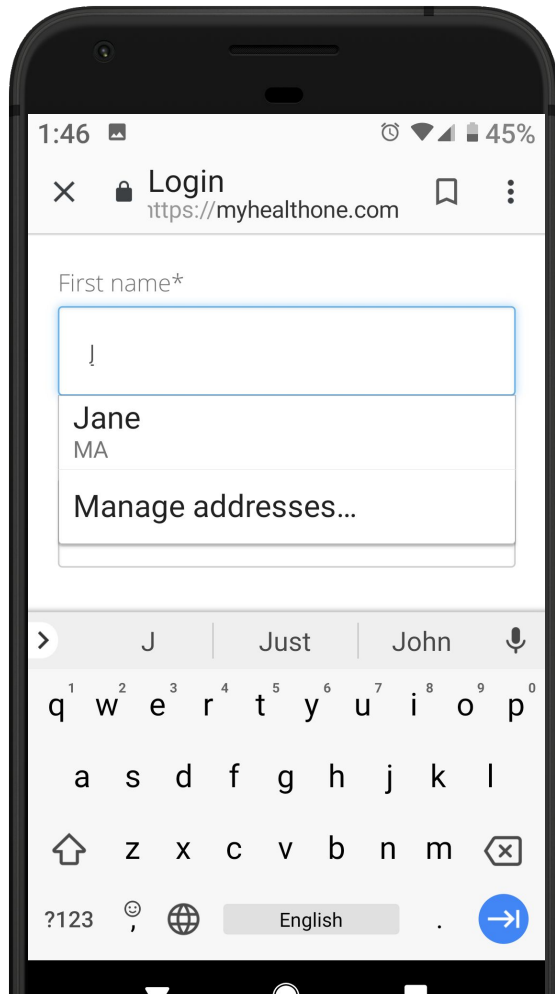
☐ Male ☐ Female

# Use autofill

Users appreciate when websites save them time by automatically filling common fields like names, email addresses and other frequently used fields, plus it helps to reduce potential input errors.

Browsers use many heuristics to determine which fields they can [auto-populate based on previously specified data by the user](#), and you can give hints to the browser by providing both the `name` attribute and the `autocomplete` attribute on each input element.

**Note:** Chrome requires `input` elements to be wrapped in a `<form>` tag to enable auto-complete. If they're not wrapped in a `form` tag, Chrome will offer suggestions, but will **not** complete the form.



# Use autofill

For example, to hint to the browser that it should auto-complete the form with the users name, email address and phone number, you should use:

```
<label for="frmNameA">Name</label>

<input type="text" name="name" id="frmNameA"
  placeholder="Full name" required autocomplete="name">

<label for="frmEmailA">Email</label>

<input type="email" name="email" id="frmEmailA"
  placeholder="name@example.com" required autocomplete="email">

<label for="frmEmailC">Confirm Email</label>

<input type="email" name="emailC" id="frmEmailC"
  placeholder="name@example.com" required autocomplete="email">

<label for="frmPhoneNumA">Phone</label>

<input type="tel" name="phone" id="frmPhoneNumA"
  placeholder="+1-555-555-1212" required autocomplete="tel">
```

# Use autofill: Autocomplete attributes

## Autocomplete attributes

[g.co/pay/autofill](https://g.co/pay/autofill)

| Content type | name attribute   | autocomplete attribute   |
|--------------|--|--|
| Name         | name fname mname lname                                     | <ul style="list-style-type: none"><li>• <b>name</b> (full name)</li><li>• <b>given-name</b> (first name)</li><li>• <b>additional-name</b> (middle name)</li><li>• <b>family-name</b> (last name)</li></ul>   |
| Email        | email  | email  |
| Address      | address city region province state zip zip2 postal country | <ul style="list-style-type: none"><li>• For one address input:<ul style="list-style-type: none"><li>• <b>street-address</b></li></ul></li><li>• For two address inputs:<ul style="list-style-type: none"><li>• <b>address-line1</b></li><li>• <b>address-line2</b></li></ul></li><li>• <b>address-level1</b> (state or province)</li><li>• <b>address-level2</b> (city)</li><li>• <b>postal-code</b> (zip code)</li><li>• <b>country</b></li></ul> |
| Phone        | phone mobile country-code area-code exchange suffix ext    | tel  |

# Use in-line validation

Modern browsers have several built-in tools to help provide real-time data validation and may prevent the user from submitting an invalid form. Visual cues should be used to indicate whether a form has been completed properly.

TL;DR

- Leverage the browser's built-in validation attributes like `pattern`, `required`, `min`, `max`, etc.
- Use JavaScript and the Constraints Validation API for more complex validation requirements.
- Show validation errors in real time, and if the user tries to submit an invalid form, show all fields they need to fix.

The image shows a mobile application interface for a 'Personal Information' form. The form is displayed on a smartphone screen with a status bar at the top showing signal strength, Wi-Fi, and the time 07:00. The form title 'Personal Information' is centered at the top in a blue font. Below the title are five input fields, each with a label above it: 'FIRST NAME', 'MI', 'LAST NAME', 'DATE OF BIRTH', and 'SOCIAL SECURITY NUMBER'. The 'LAST NAME' field is highlighted with a dark blue rounded rectangle containing a white play button icon, indicating a validation action or error. To the right of the 'SOCIAL SECURITY NUMBER' field is a small blue question mark icon. At the bottom of the screen, the text 'ARE YOU A U.S. CITIZEN?' is partially visible.



46%

Did not implement error  
messaging in real-time

# Use in-line validation

Use these attributes to validate input

- The pattern attribute
- The required attribute
- The min, max, and step attributes
- The maxlength attribute
- The minlength attribute
- The non-validate attribute

[Learn more here](#)

You can also

- Use JS for more complex real time validation
- Set custom validation methods
- Prevent submission on invalid forms
- Show feedback in real time

[Learn more here](#)

# Make location entry easy

Consider the Google Places API for address input.

[Learn More.](#)

Or use zip or postal code to populate city and state.

Example: [HomeDepot](#)

34 Quincy Street X Cancel

my current location ↗

34 Quincy Street, Brooklyn, NY

34 Quincy Street, Cambridge, MA

34 Quincy Street, Boston, MA

34 Quincy Street Northeast, Minneapolis, MN

34 Quincy Street, Medford, MA

powered by Google

Last Name

Email

you@domain.com

Phone

( ) -

Shipping Address

Address Line 1

Add an apartment, suite, building, etc.

ZIP Code

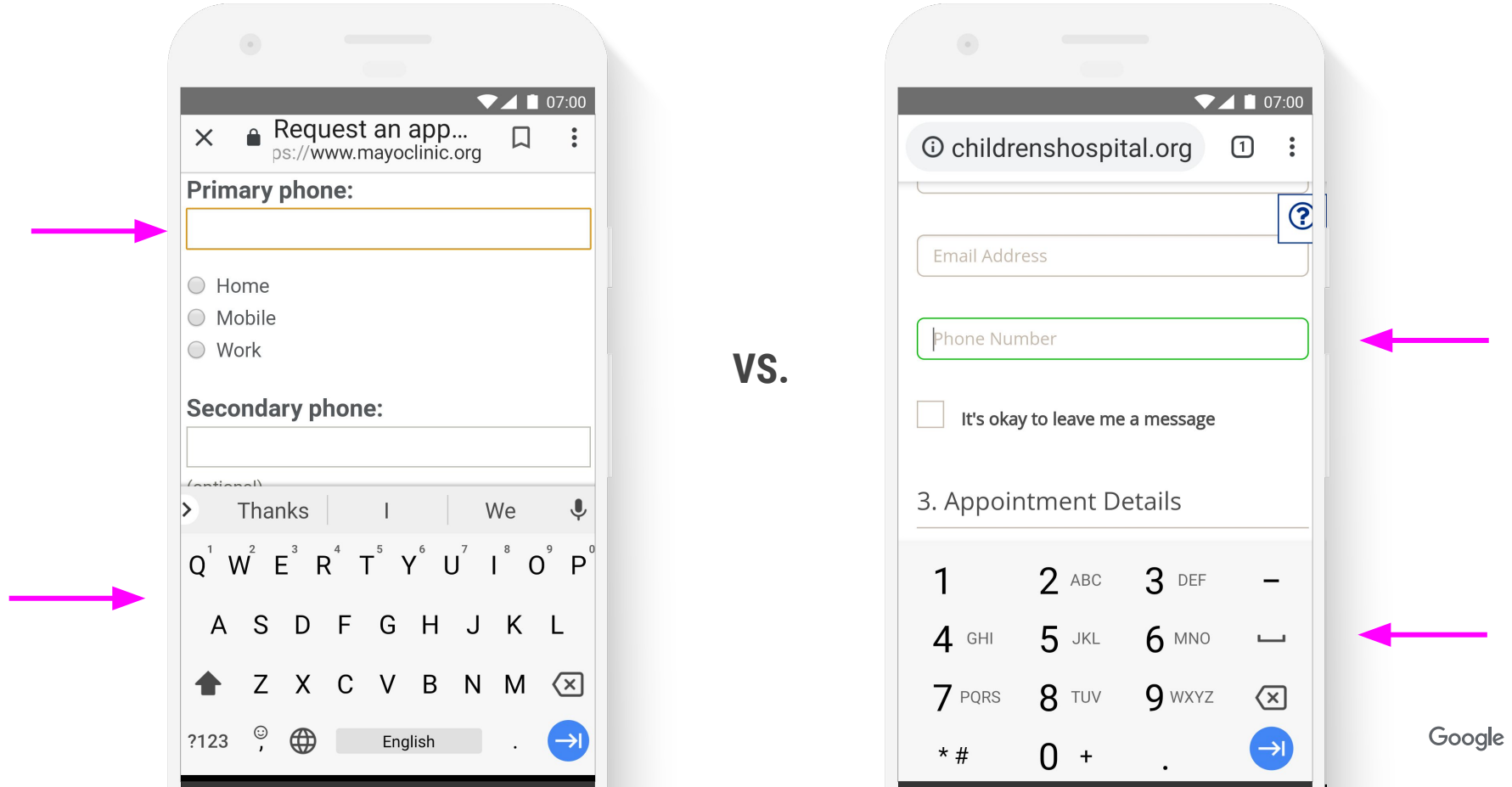
Enter ZIP Code to see city and state.

☒ Use as Billing Address

Payment

# Always use the correct keypads (phone, zip, card)

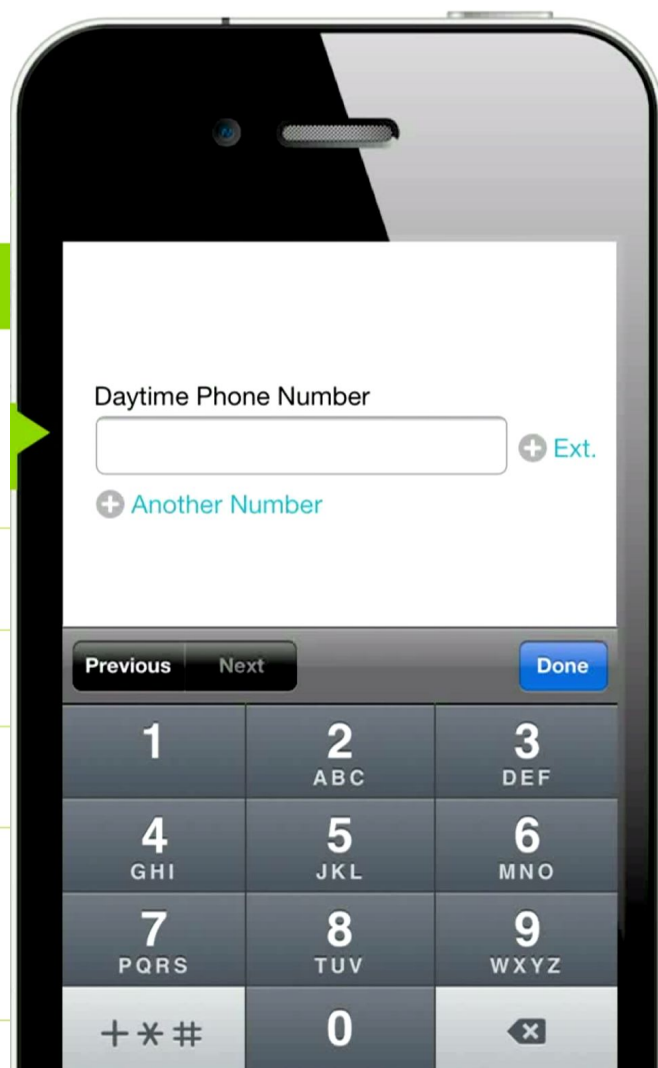
Proprietary + Confidential



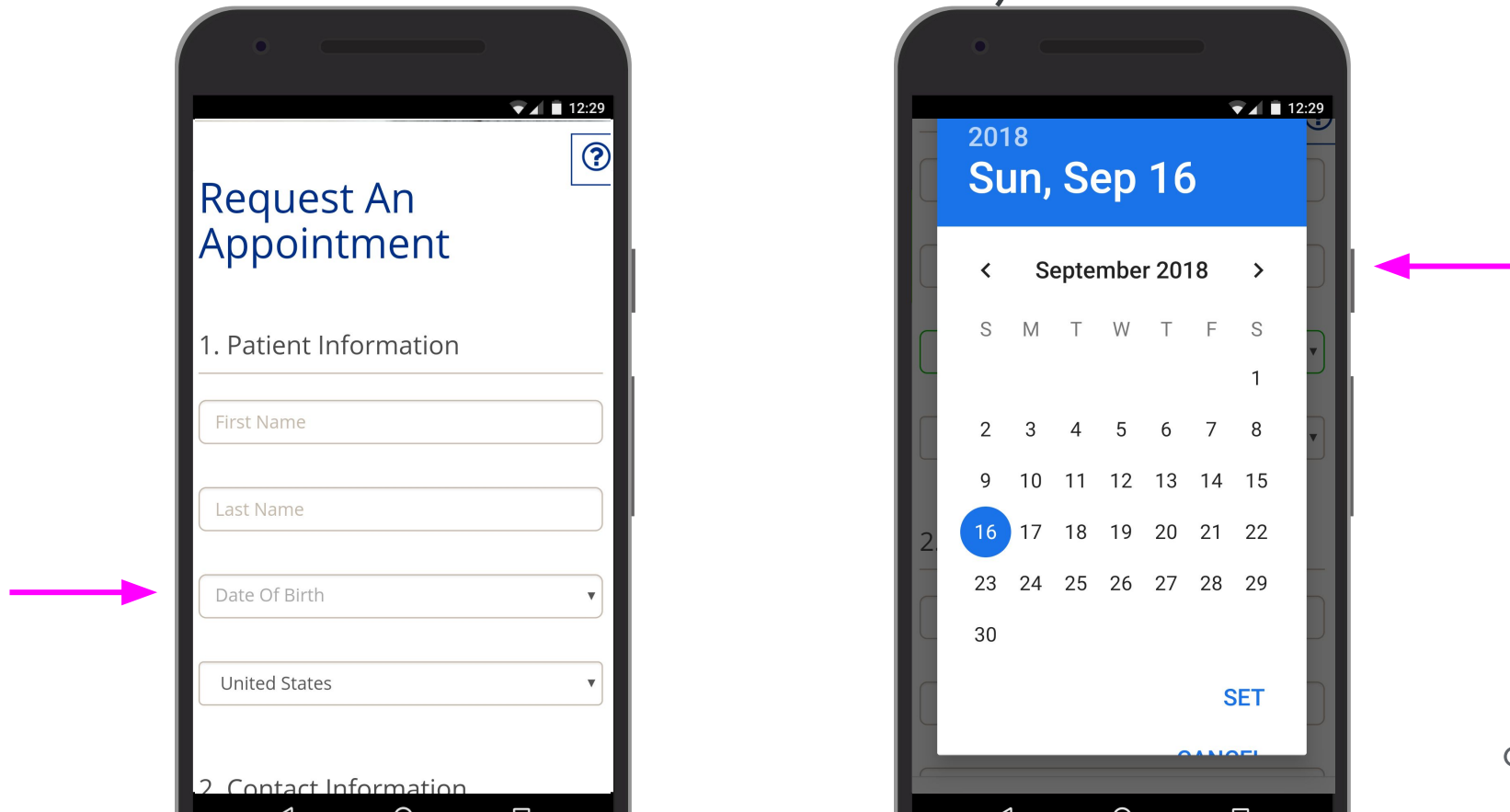
Google

# Ensure that the correct input type is used

| Input Type | HTML   |
|------------|--|
| number     | <pre>&lt;input type="number"<br/>      min="2" max="10"<br/>      step="2" value="6"&gt;</pre> |
| email      | <pre>&lt;input type="email"&gt;</pre>  |
| url        | <pre>&lt;input type="url"&gt;</pre>  |
| date       | <pre>&lt;input type="date"&gt;</pre>   |
| range      | <pre>&lt;input type="range"<br/>      min="2" max="10"<br/>      step="2" value="6"&gt;</pre>  |



Always use the easiest date input (but be careful with calendars for dates that are not recent)



29%

Do not allow users to navigate  
back and forth in a form  
without losing information

# Show progress/pagination to guide the user

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Label each step to help prime the user for what data is next.

If a large number of steps, used a progress bar that moves forward toward completion.

geico.com

GEICO

Customer Vehicles Drivers Discounts Quote

You're in good company! 967 of your San Francisco neighbors purchased a GEICO policy last month.

[Customer Information](#)

We need to ask you for some personal information to provide you with an accurate quote. This information is kept private and secure, and will not be sold.

First name

Last name

Address

Apt

ZIP Code

credible.com

Free MRI Review

Please fill out this form. A Patient Care Manager will review it and reach out to you soon.

Two More Questions

5555555555

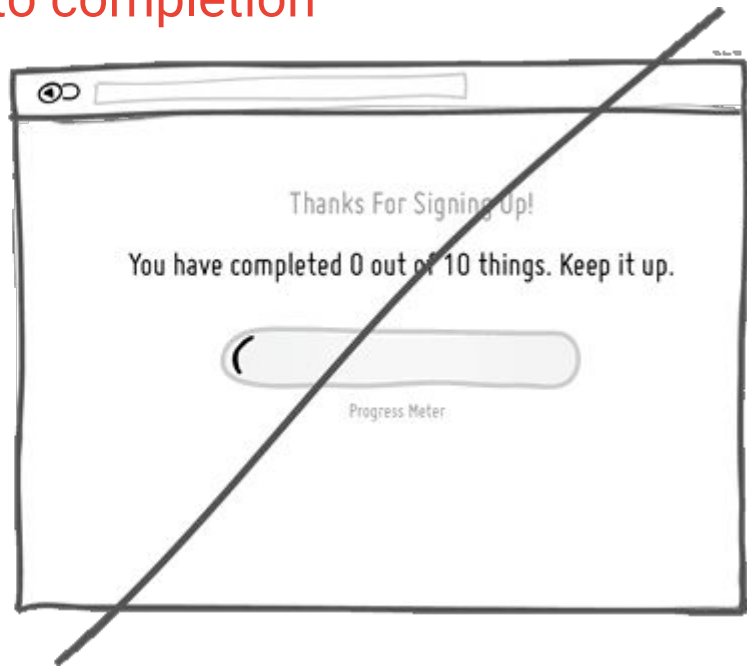
Aetna

Complete



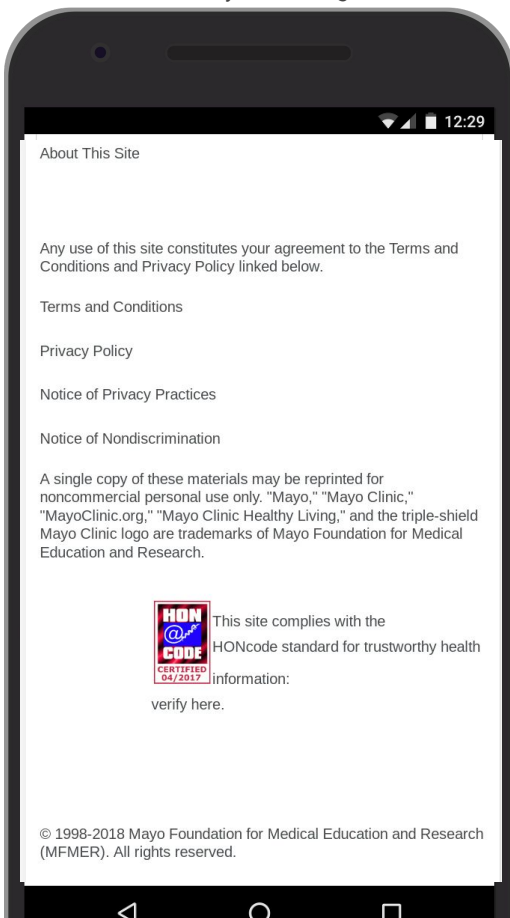
# Research: Use upfront progress instead of starting at zero

There is more motivation for getting things done  
the closer we are to completion

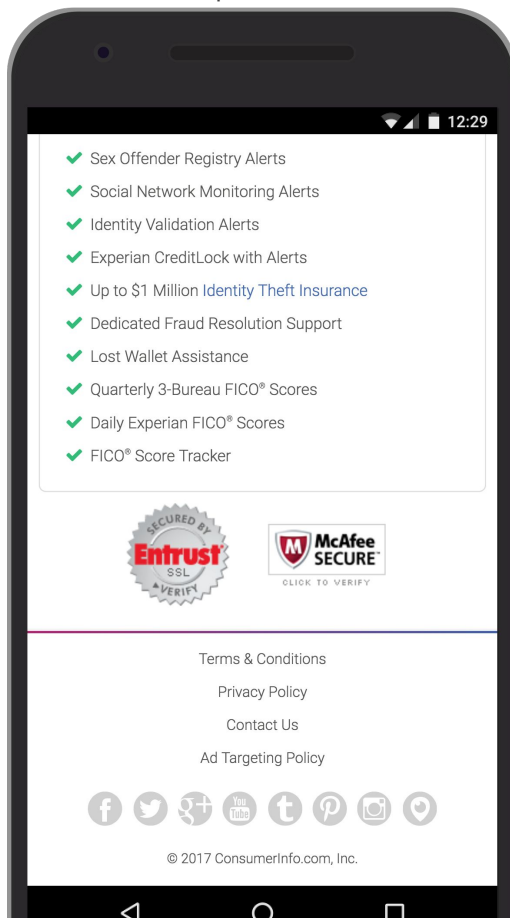


# Show the security of your site to gain user trust

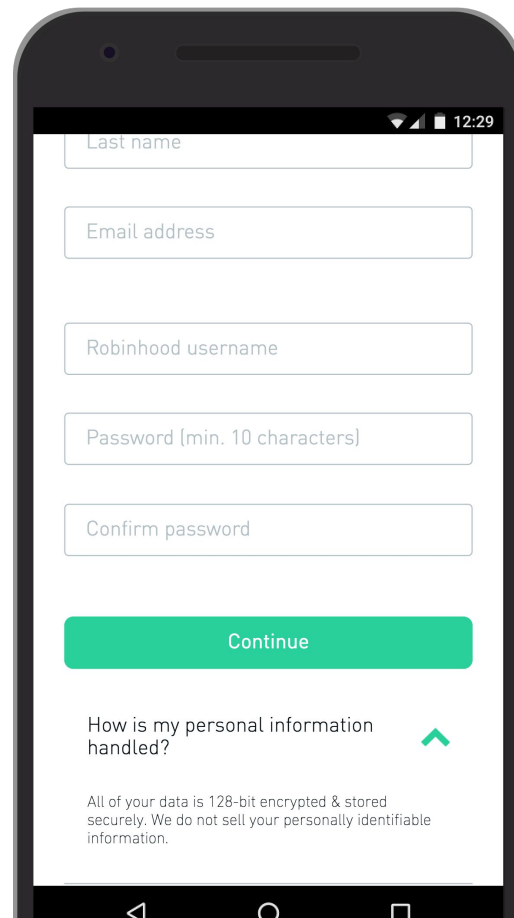
MayoClinic.org



experian.com




robinhood.com




# Clarify why personal information is needed


About you


What's your first name? 

Max

And your last name? 

Why do we ask?  
Insurers need your full name for your insurance certificate.

What's your email address? 

AspenDental 

LOCATION DATE & TIME PATIENT INFO


select a date & time

Has this patient had an exam with us in the past?

**WHY WE ASK?**

☐ yes

☐ no


SoFi  Log In

See what SoFi can offer you in 2 minutes


First Name

Last Name


State of Residence

You can use your email to log in when you come back to SoFi. We will not spam you, or sell or rent your email address. 

Email

Password 

Live Chat

Confirm Password 

# Forms can be fun

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NorthAmericanSpine.com

NorthAmericanSpine.com

07:00

NorthAmericanSpine  
by Nobilis Health

Where is your pain located?

Click on the area below to identify your trouble areas and symptoms  
(numbness, weakness, pain or no pain).

FRONT

RIGHT LEFT LEFT

DignityHealth.org

DignityHealth.org

07:00

Where Does It Hurt?

Select the area of the body where you feel the most pain.

SHOULDER

BACK

HIP

KNEE

Zocdoc.com

Zocdoc.com

07:00

We've updated our Terms of use and Privacy policy. [Take a look](#)

Zocdoc

Feeling meh?  
Find a doctor.

condition, procedure, doctor name...

zip code or city

I'll choose my insurance later

Find

# Conversational form

The image displays five sequential screens of a mobile application for AspenDental, illustrating a conversational form for scheduling a dental appointment. Each screen features a top navigation bar with the AspenDental logo, a 'TOUCH TO CALL' button, and three tabs: LOCATION, DATE & TIME, and PATIENT INFO.

- Screen 1:** The 'confirm location' tab is active. It shows the text 'confirm location' and 'Finding an office is as easy as entering your information below.' Below this is a search bar with the placeholder 'Enter a Zip, or City, State' and a magnifying glass icon.
- Screen 2:** The 'confirm location' tab is active. It shows the text 'confirm location' and 'Saugus, MA'. Below this is the 'select a date & time' tab, which is active. It shows the text 'select a date & time' and 'Has this patient had an exam with us in the past?' with two radio button options: 'yes' and 'no'.
- Screen 3:** The 'DATE & TIME' tab is active. It shows the text 'What is the primary reason for the visit?' and 'WHY WE ASK?'. Below this is a dropdown menu with 'Invisalign' selected. Below the dropdown is a paragraph of text: 'A new patient's first dental appointment with an Aspen Dental office includes an exam, consultation, and x-rays. Following the exam, the dentist will offer recommendations for care, provide the opportunity to discuss treatment, and address any questions the patient may have.' Below this is the text 'Saugus, MA' and 'Select a day and time'. Below this is a 'Choose a date' button with a calendar icon.
- Screen 4:** The 'PATIENT INFO' tab is active. It shows the text 'patient information'. Below this is the 'Full Name' section with two input fields: 'First Name' and 'Last Name'. Below this is the 'Date Of Birth' section with three input fields: 'MM', 'DD', and 'YYYY'. Below this is the 'Email' section with an input field containing 'example@domain.com'.
- Screen 5:** The 'PATIENT INFO' tab is active. It shows the text 'patient information'. Below this is the text 'If you provide a mobile number, appointment reminders will be sent to you via text message. Service charges from your mobile provider may apply. You can opt out at anytime.' Below this is the text 'Does the patient have dental insurance?' with two radio button options: 'Yes' and 'No'. Below this is the text 'WHY WE ASK?' and 'Do you use state-funded programs, like Medicare or Medicaid? Learn about our policy [HERE](#)'. Below this is an orange button labeled 'schedule new patient appointment'.

# Thank You