

# HOPE Directory

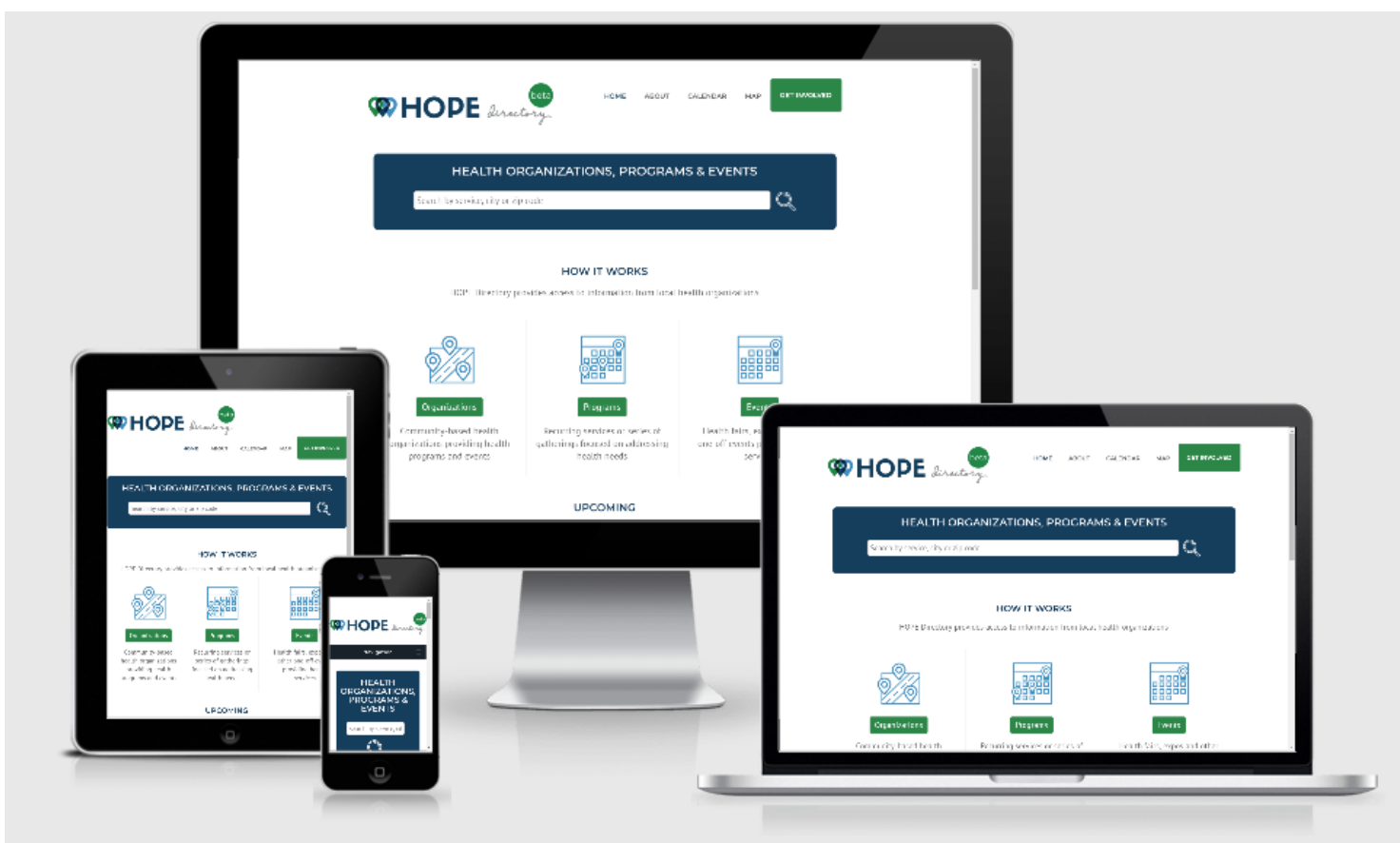
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## ABOUT

This is beta version 1 of the HOPE Directory which is still undergoing testing before its official release. The HOPE Directory, short for health *organizations*, *programs* and *events*, offers a centralized source for reliable and authoritative local health information. The goal is to improve public health by removing barriers to access. The first year of this project will focus on the collection of data in Tarrant County, Texas, followed by surrounding counties in successive years.

This project has been supported in part or in full by Federal funds through the National Library of Medicine of the National Institutes of Health under award number UG4LM012345 with the University of North Texas Health Science Center. The content is the responsibility of the authors and does not necessarily represent the official views of the NIH.

Visit the [HOPE Directory](https://hope.hsc.unt.edu) for more information or email [hope@unthsc.edu](mailto:hope@unthsc.edu).



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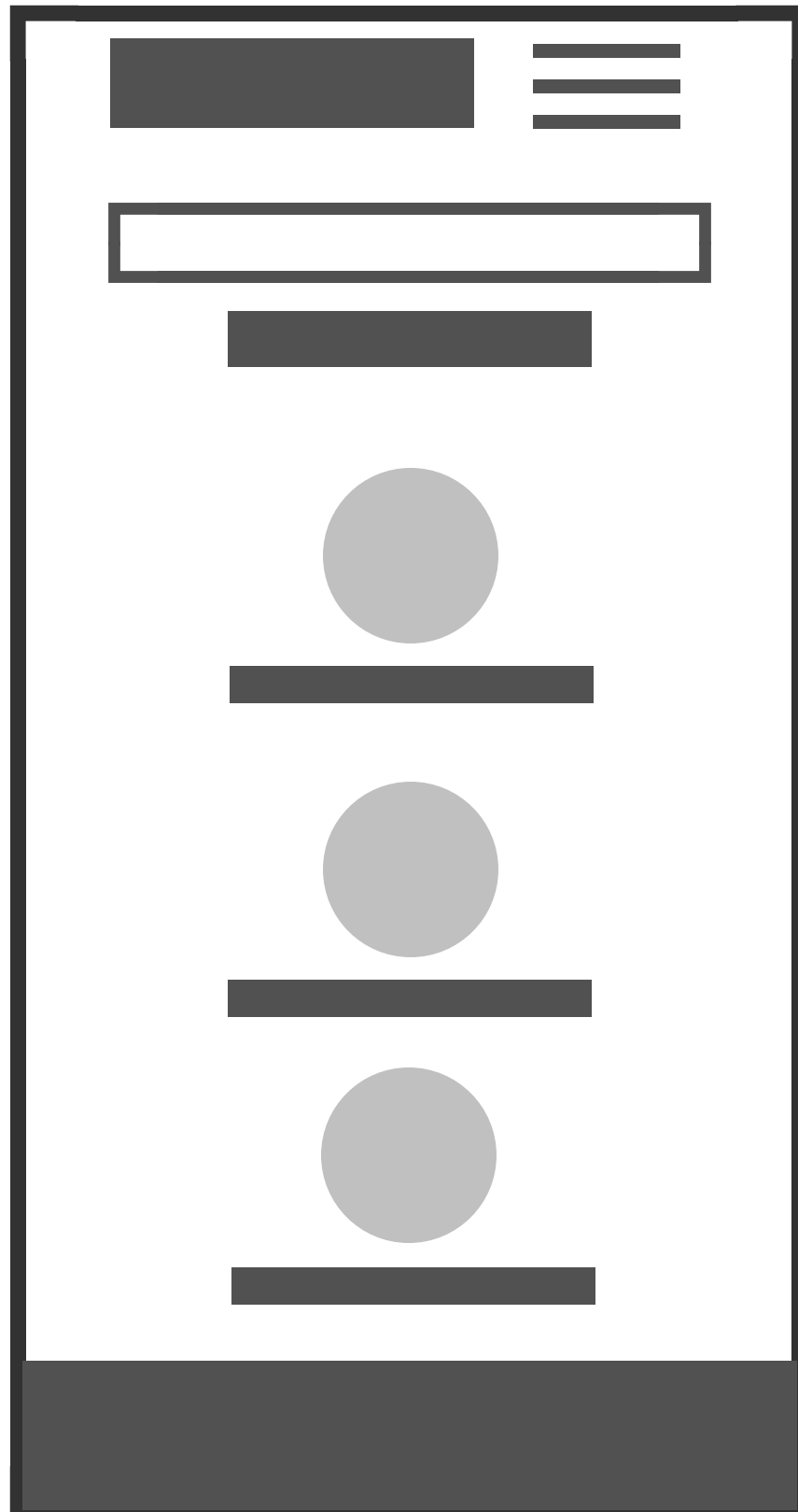
## DEVELOPING

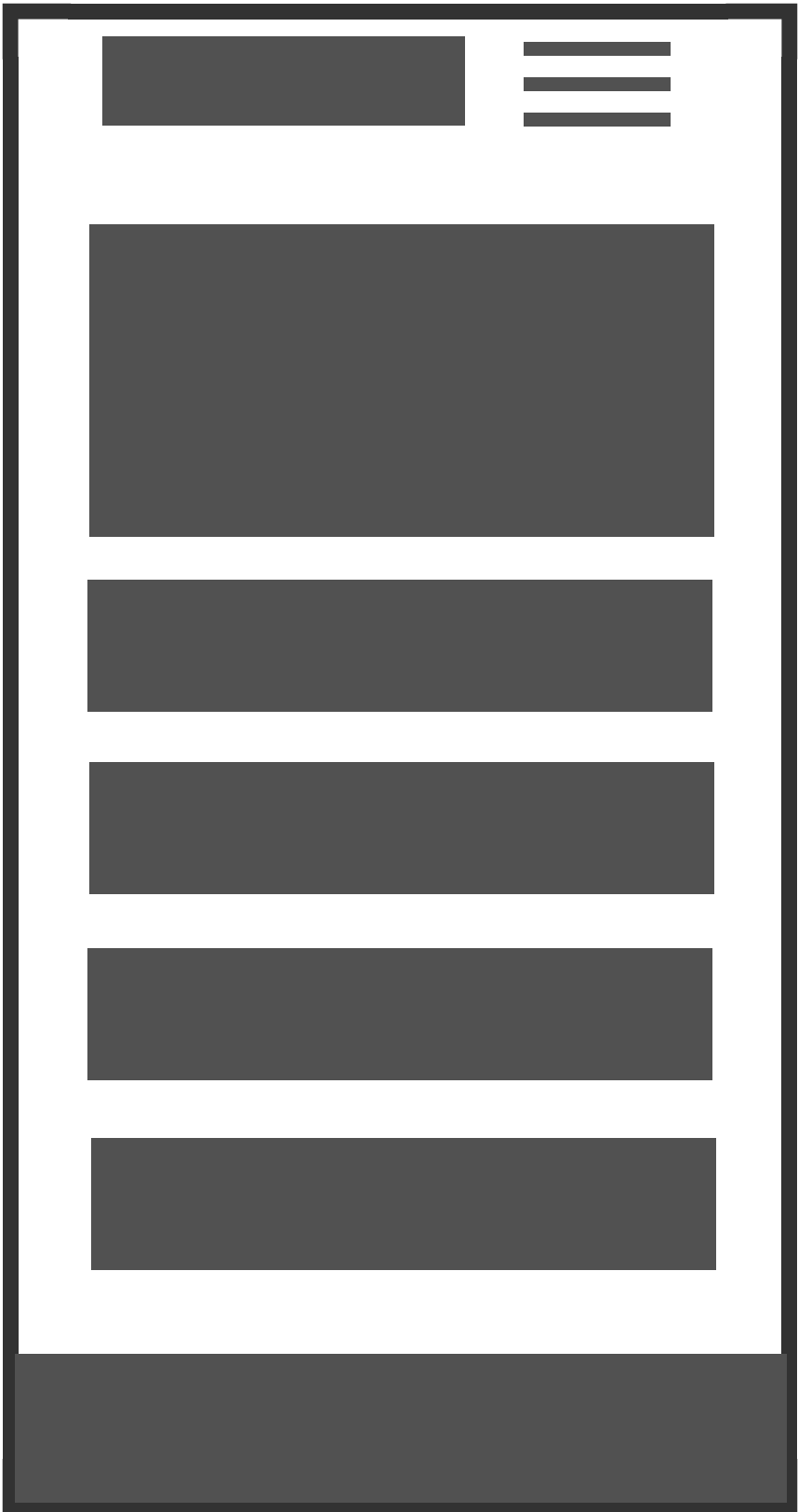
### Mobile First

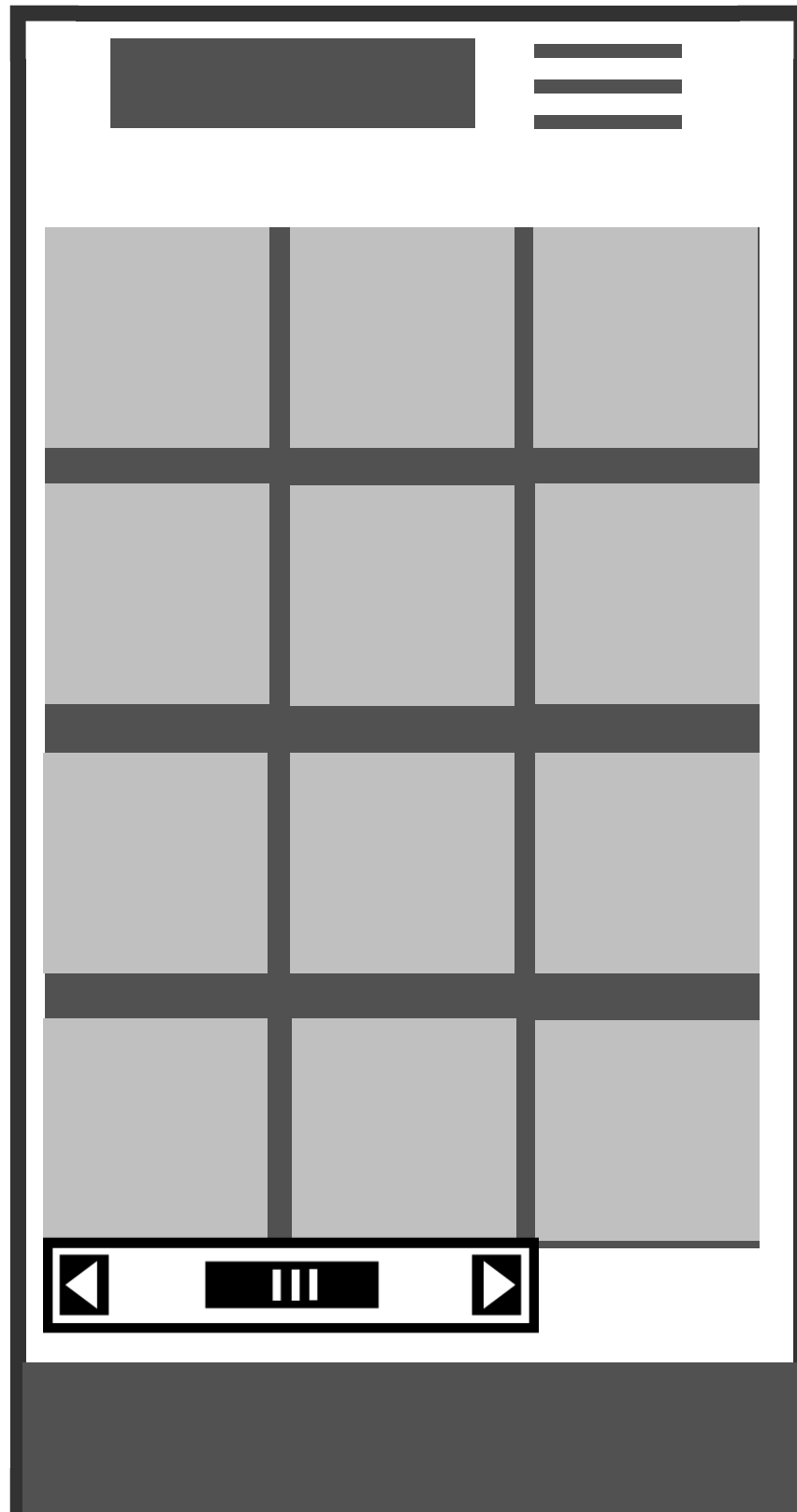
The HOPE Directory is being developed using a "mobile first" design approach. With the proliferation of mobile devices, a user-friendly mobile design is imperative for accomplishing the goal of delivering the greater community and non-profits with a directory of resources and calendar of events. The mobile application benefits both health consumers and non-profits.

Early wireframes and mock-ups focus primarily on three key pieces:

- 1) The directory homepage provides information about the purpose of the directory and what it can do. Users can search the directory directly from the homepage and connect to listings of organizations, programs, and events. For app display, search elements and buttons on the homepage need to be easily readable, easy to interact with, and all elements need to be separated by an adequate amount of white space. The mobile navigation bar, or "hamburger menu", needs to take up minimal space but still be easy to locate and access so users can quickly navigate the website.
- 2) Pages detailing organizations, programs, and events contain vast amounts of information and need to be presented in way that is easy for users to access and digest content. Pieces for each content type are analyzed so like items can be grouped together and placed into containers that are initially collapsed, but can easily be expanded by the user. Geocoordinates are captured for each organization, program, and event and display on a map which needs to load quickly on the mobile application and include standard features such as zoom functionality.
- 3) The calendar can contain multiple entries depending on the programs and events available. Ample space in the design is necessary so all items are readable and easily accessible while remaining mobile application friendly. Calendar scrolling functionality for mobile ensures ease of use on smaller devices.







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## DEVELOPMENT

### Structure

Early development phases involved creating a granular metadata structure which is used to organize content pieces for organizations, programs, and events. Given the complexities of the structure and the need for users to easily search, filter, and locate information relevant to their needs on mobile devices, the directory was developed in Drupal 7, a very powerful and customizable content management system.

The United Zymphonies Theme was selected due to its HTML 5 structure, clean markup and minimal design which is highly customizable and can be easily built on. The theme provides mobile features out of the box that are being further customized utilizing JQuery, JQuery Mobile, and CSS.

As work has progressed on the homepage, additional information about what the HOPE Directory is and the types of content users can search for continues to be clarified. In order to ensure this information is easy to read and access on the mobile application, additional block content regions have been added. These content regions, "Description" and "Featured", were incorporated into the page.tpl.php and .info files to provide more context and improve user experience. The JQuery "hamburger menu" was also adjusted to make text and clickable areas larger. When accessing the directory on phones, the search box may be the only content element (other than the directory logo and "hamburger menu") users see without scrolling, therefore, some additional context is needed so users know what they can search for. A custom tpl.php template file has been created for the search form with help text included ("Search by service, city, or zip code").

As content types for organizations, programs, and events have been built out and tested, it was determined that a two column stacked panel structure would work best for organizing the various pieces of information. For screens 799px or less, both panels are set to a width of 100% so the containers in each column display on top of one another. On devices larger than 799px the column content displays side by side. All containers, with the exception of the first two, are collapsed by default so mobile application users are able to quickly scroll through the content pieces. Containers can be easily expanded by touching the container heading when accessing from a mobile device.

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For each content type, geocoordinates are captured by the field type "geofield." After exploring various options, Leaflet was ultimately chosen for tile creation because it is open source and easy to customize, works well across all screen sizes, and the Javascript library is relatively small at 38KB. The [Leaflet Drupal module](#) integrates fairly seamlessly with the [Leaflet Mapbox module](#) to create a highly customizable map display. There are also many other Drupal modules that build off of Leaflet and extend its functionality.

The [Search API module and its dependencies](#) were installed and continue to be tested and tweaked extensively. A server was created in Search API and the HOPE Index was added. Numerous fields from the organization, program and event content types were added as either [full-text or taxonomy terms](#). Multiple [controlled vocabularies](#) are used within each content type so users can apply various filters in order to refine search results. A search view delivers the search box, results, and facets display. On the mobile application, filtering options display underneath the search results in the view so users see the expected list of results at the top.

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## TESTING

The first round of usability testing was completed with a group of community partners and medical students in January 2019. Participants were asked to complete a series of tasks using the directory. Following the tasks, users completed a 10 question SUS (System Usability Scale) and a series of optional open-ended questions.

Results and feedback from usability testing indicated that it was difficult for users to find information on how to submit their organization, program, or event to the HOPE Directory. As a result, the menu option "Contact" was changed to "Get Involved." Testing also revealed clickability issues with the search icon which were particularly impactful when searching from a mobile device. These issues have been resolved. Other refinements based on usability testing are still in progress and the next round of testing will occur in Spring 2019. System Usability Scale (SUS) scores from the first round of testing will be used to establish a baseline to compare against scores from future usability tests.

The images below show how development has progressed from the early wireframes.

- Homepage
- Organization, Program, Event
- Calendar



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## SHARING

Code and documentation will continue to be made available on [GitHub](#) as the project develops and members of the project team present the work at local and national conferences and meetings.

The HOPE Directory project team welcomes the opportunity to collaborate and share what we have learned throughout this process. We encourage members of the community to contact us with any questions.

[Contact form](#)

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