Data Visualization to Prioritize Child & Family Health

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UC DAVIS — Perinatal Origins of Disparities Center
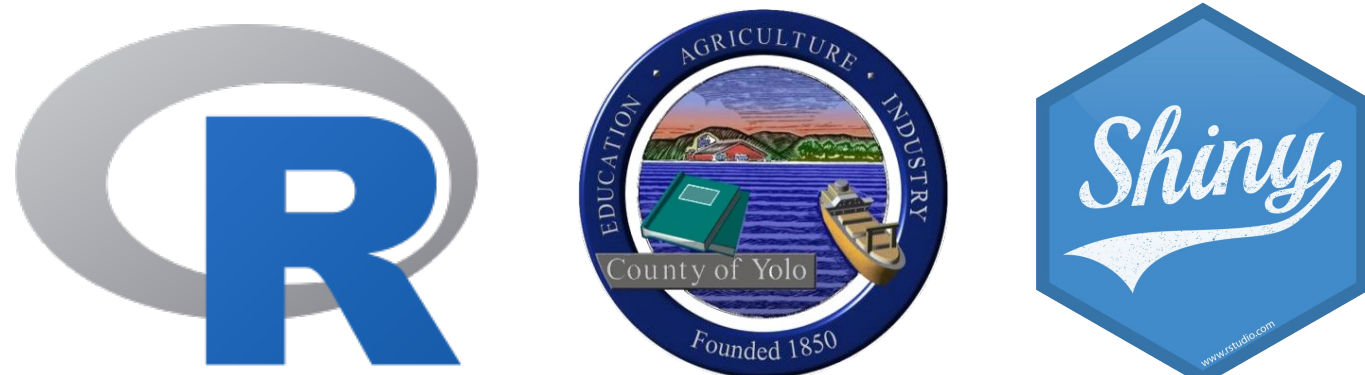
Data+

Abstract

Our goal was to create an interactive dashboard using R Shiny for residents and researchers of Yolo County. The dashboard allows for improved access to community and health resources and provides insights about county-wide demographics.

We hope that the dashboard will eventually become a "one stop shop" for Yolo County residents to find the information and resources they need.

Future work will involve adding more resources to the dashboard, incorporating other platforms, and expanding this work to Durham County.

Objectives

- ❖ Identify resources that would be valuable for residents and researchers in Yolo County, California.
- ❖ Find data sets that are current and updated with some frequency
- ❖ Wireframe a dashboard and create it using R Shiny
- ❖ Ensure the dashboard helps underrepresented groups and is available in English, Spanish and Russian.
- ❖ Package and publish the dashboard for public access with proper documentation for further maintenance and improvement.

Data

- ❖ American Community Survey
  - Map Data
  - Updates Annually
- ❖ California Health and Human Services Open Data Portal
  - Data throughout California
- ❖ Data Acquisition by a team of UC Davis Students
  - Obtained local Resources
  - Organized Data Collection

AMERICAN COMMUNITY SURVEY — U.S. CENSUS BUREAU

CHHS — California Health & Human Services Agency

UC DAVIS — UNIVERSITY OF CALIFORNIA

Results

We were able to create an interactive dashboard with R Shiny that allows Yolo County residents to **find healthcare providers, childcare, food resources, transportation and community organizations.**

Our resources specifically **provide information and assistance for low-income residents** who may not have insurance or seek affordable options. Additionally, our dashboard can easily be translated into Spanish and Russian.

Lastly, we were able to compile comprehensive documentation and work with the Pod Center at UC Davis to **create a plan for maintenance and future improvement of the dashboard**.
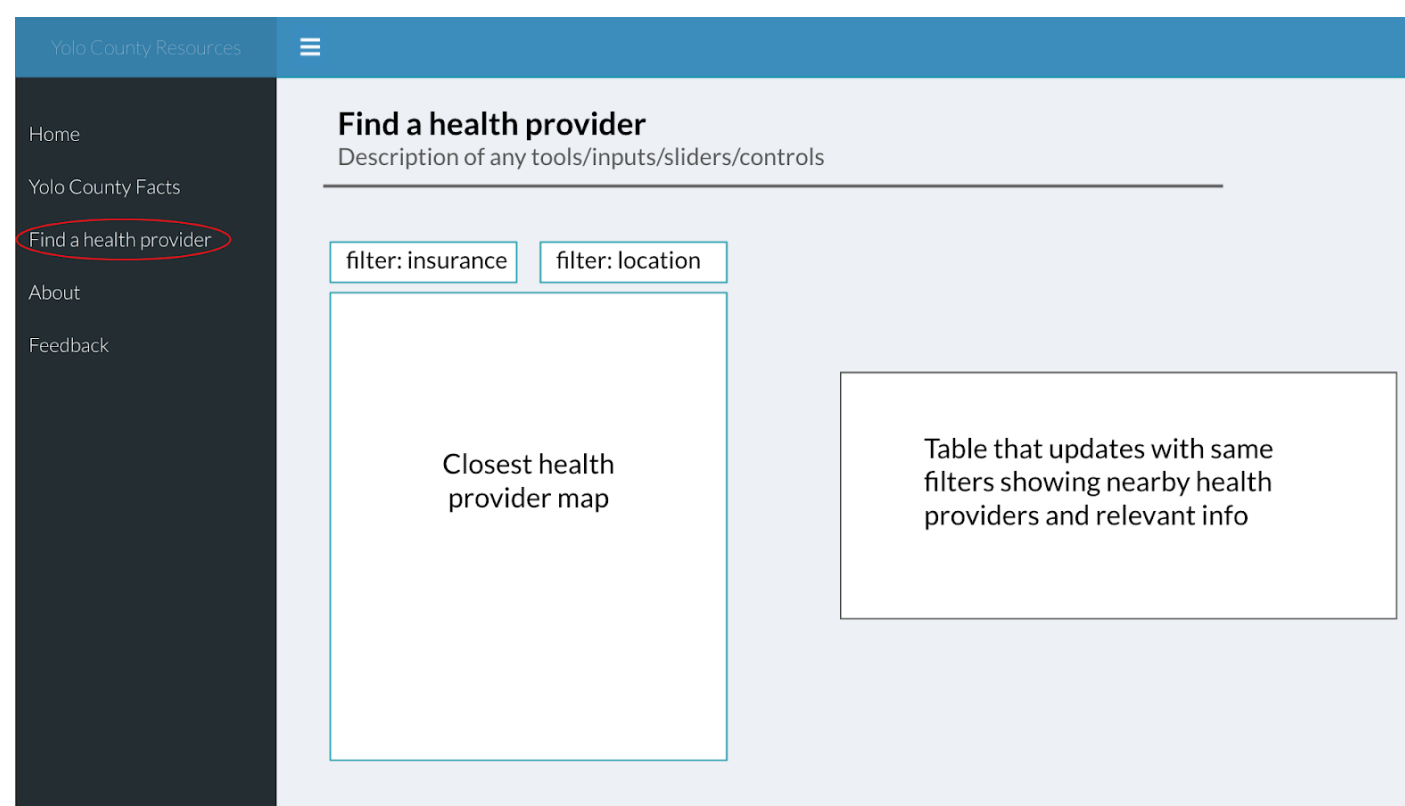

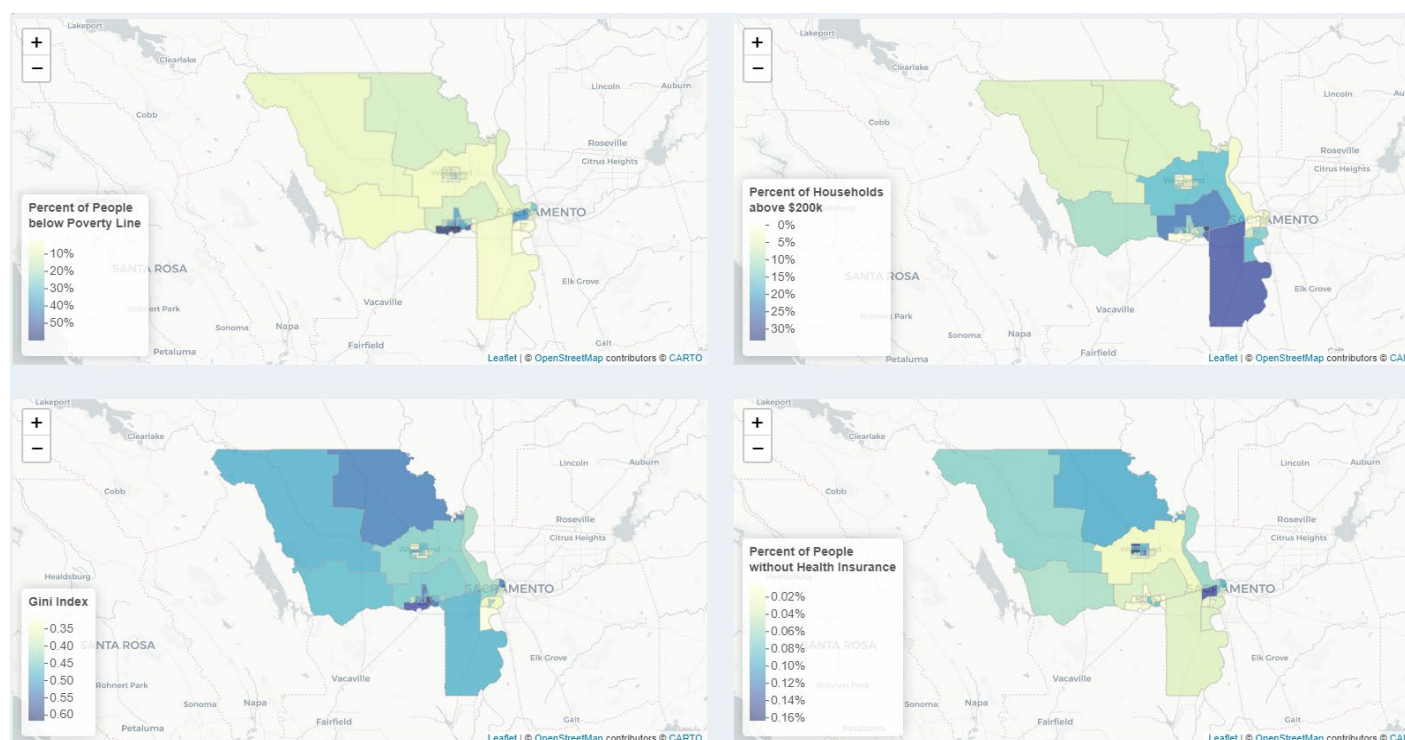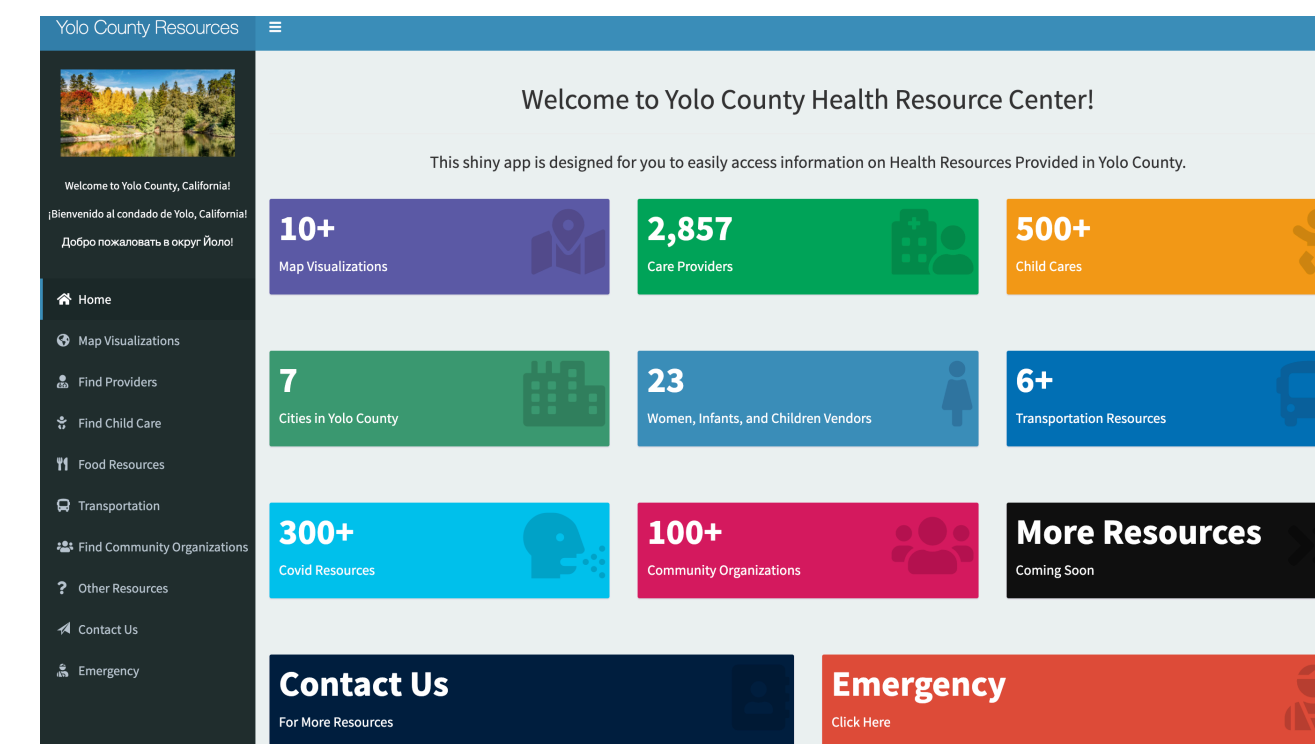Figure 1: Wireframe of the health provider tab of our dashboard

Figure 2: Interactive Maps of Yolo County created with the leaflet package and data acquired from the ACS

Conclusion

We created an Interactive Dashboard …

- ❖ with an informative home page
- ❖ with **10+** pages
- ❖ in **3+** languages
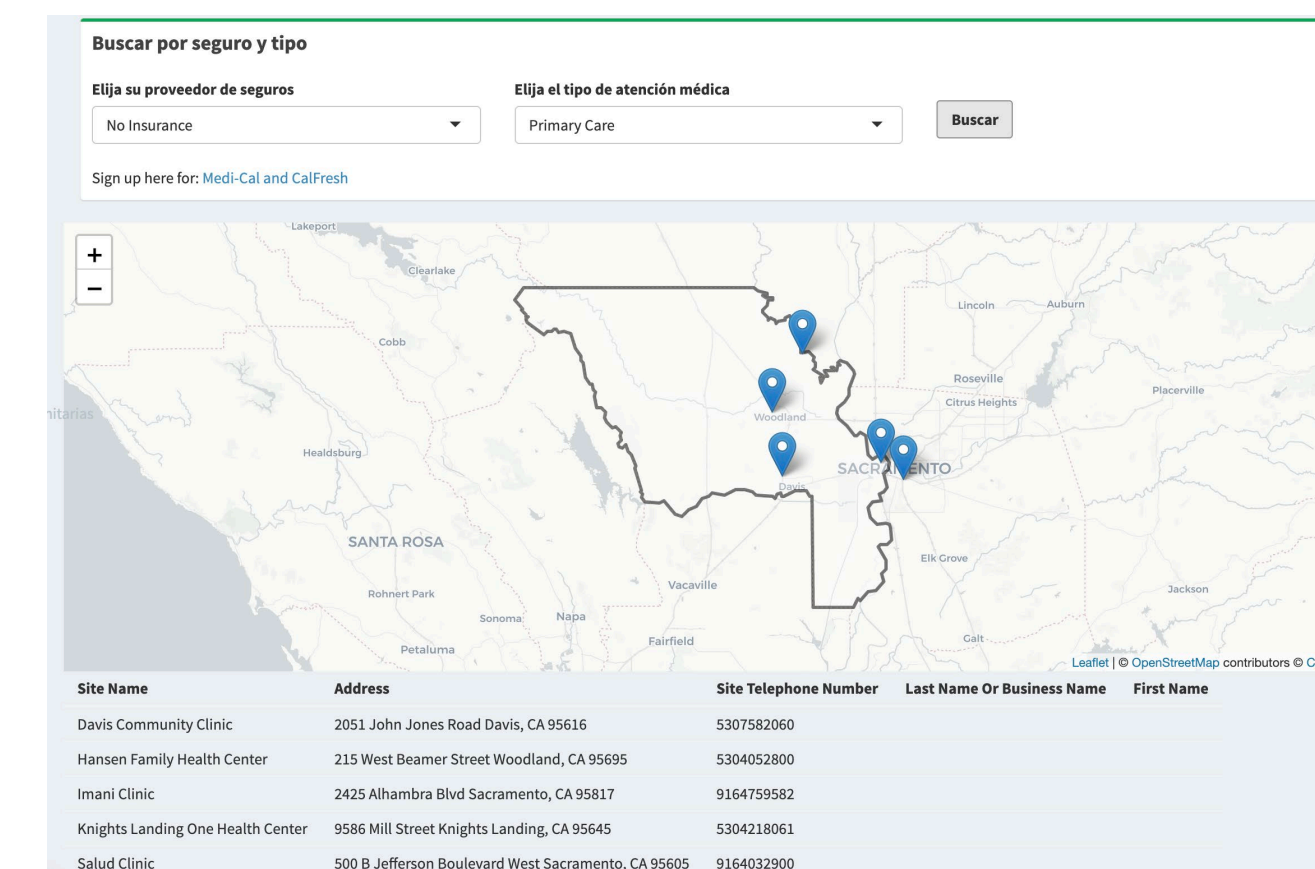- ❖ with **100+** resources and **2000+** medical providers
- ❖ catered to the **user's unique needs**

Figure 3: The health provider tab of our dashboard, shown in Spanish

Acknowledgements