System for Health Assessment and Population Equity (SHAPE): A Data Visualization Tool

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BACKGROUND & DESIGN

- The HCI EAB recommended establishing data standards and processes for periodic high-quality data assessments in the expanding catchment area.

- The proposed SHAPE systems aim to address population heterogeneity and data quality differences across the 5-state catchment area.

- SHAPE will be essential for evaluating and addressing cancer control opportunities for diverse populations in the HCI region.

SHAPE KEY FUNCTIONALITIES:
- ✓ Integration of clinical and population data resources
- ✓ Derivation of relevant population layers
- ✓ Catchment Query Portal and Population Data Integrator Tool
- ✓ Interface with primary analytic services where applicable
- ✓ Geospatial analysis & cartography

Population Data | Derived Data | Primary Data*

Data Integration, analytic, query, and output tools

- SHAPE will utilize data from public sources (e.g., US Census), restricted public data (e.g., state health departments), and both de-identified and identifiable data (e.g., University of Utah Health).

- SHAPE will enhance data integration by adding new layers (e.g., travel time, service areas). A key feature will be the user interface for queries, analytics, mapping, and data export.

- We will periodically collect primary data through CHAS to gather specific catchment area information and robustly sample for small area estimates and hard-to-reach populations.

OBJECTIVES

Using a systematic, tiered approach, we are developing our data integration system in partnership with Markey Cancer Centers Cancer InFocus to identify needs and to monitor key metrics for the populations in the Area We Serve, with the explicit purposes to:

- Assess and monitor cancer burden in the Area We Serve in tailored ways

- Assess and monitor population health across the cancer control continuum

- Identify areas/populations in need of targeted research/ translation/ implementation

- Translate and use needs assessment to inform catchment area priorities of the HCI Scientific Programs, senior leadership, and our Community Advisory Board (CAB)

- Produce new data layers and measures

- Measure impact of HCI research and COE efforts within the Area We Serve

Proportion of Population in high-risk counties
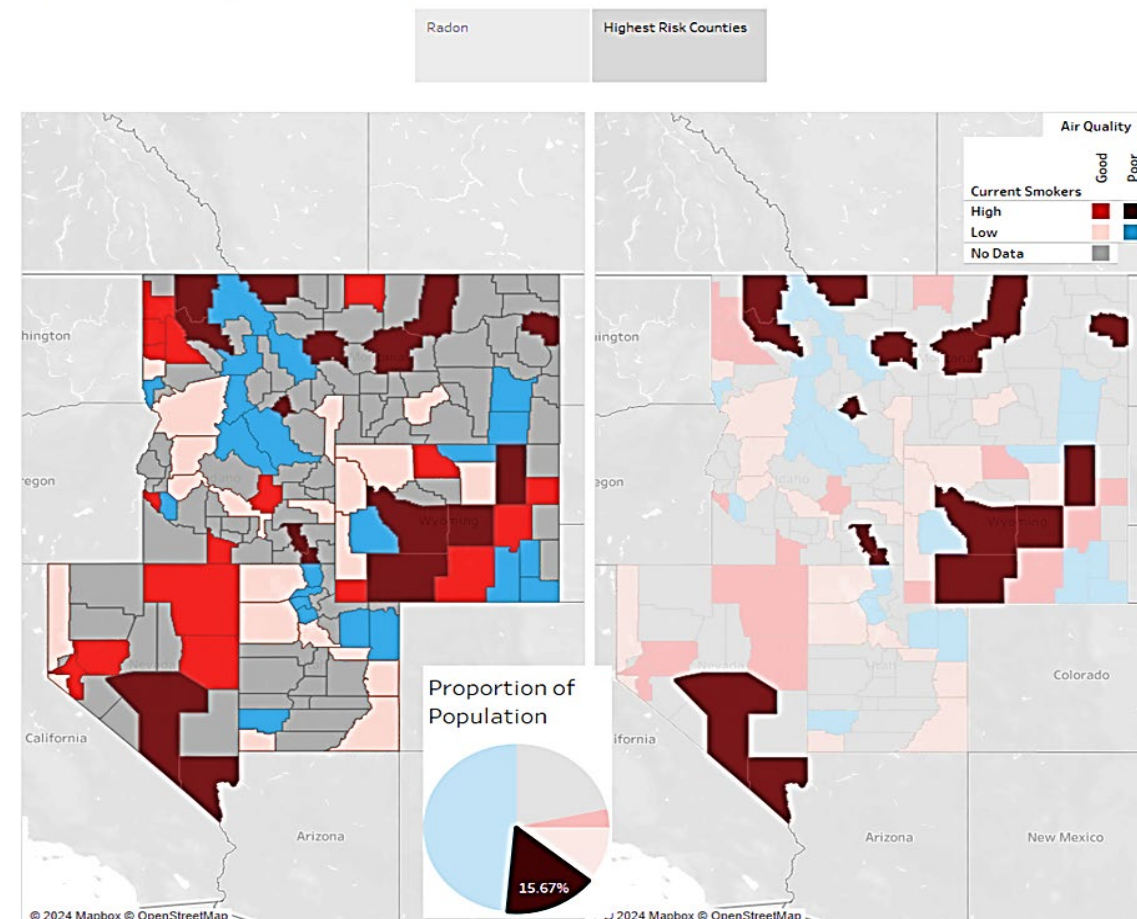
Community Health Assessment Survey (CHAS)
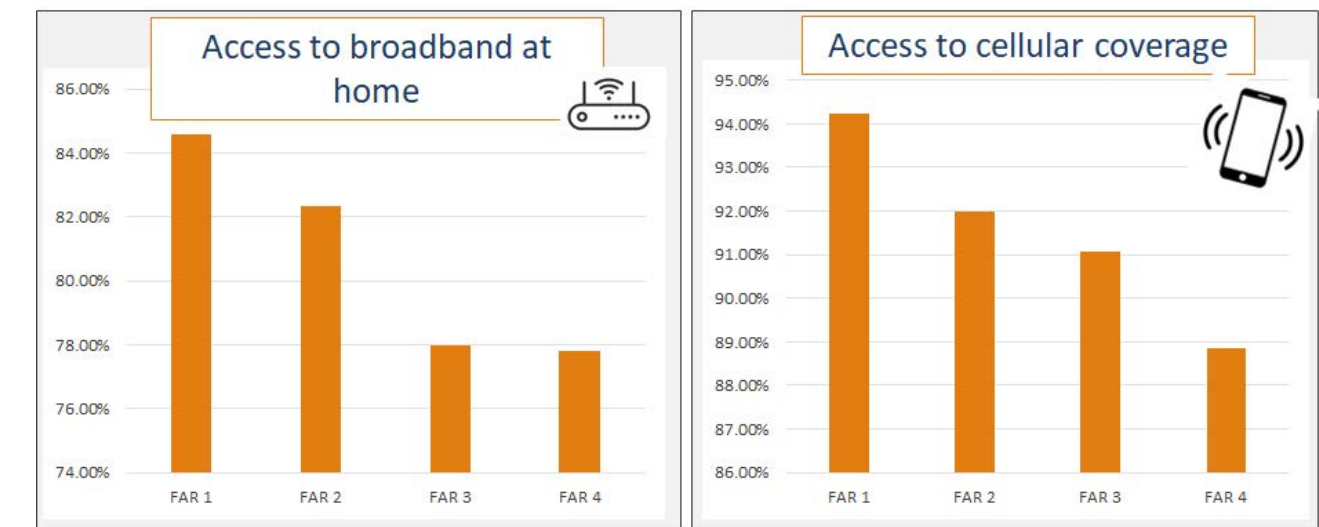
CHAS collects primary data from national surveys and community-driven elements, informed by various stakeholders. CHAS 1 assessed rural populations, and CHAS 2 is focusing on Hispanic/Latino individuals.

Identifying rural and frontier populations in the first CHAS was based on BRFSS data, which showed no frontier representation for some states, though rural populations were included.

- A total of 1600 respondents from Rural and Frontier populations across the 5-state Mountain West region were assessed.

- The first cancer control-focused data and knowledge base on frontier populations will be generated.

- In addition to the results above, 70% indicated visiting specialists were key to improving health care access in their community followed by more primary care providers, improved or better quality of care, and availability of walk-in clinics.

- Results indicate that 48% of women within the screening age were current with breast cancer screening and is even lower for the most remote women. A similar trend is seen for Colonoscopies/Sigmoidoscopies screenings with the most frontier individuals most likely to never be screened or be current with screening.

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