

## Background

- ❖ The Mountain States Regional Genetics Network (MSRGN) is funded to expand access to genetic services for underserved populations in Arizona, Colorado, Montana, Nevada, New Mexico, Texas, Utah, and Wyoming (see Figure 1).
- ❖ The Health Resources and Services Administration (HRSA) provides measures to identify underserved communities including Health Professional Shortage Areas (HPSAs).
- ❖ While healthcare system factors can impede access to care, many communities also face disparities in access to care related to socio-demographic factors.

## Objectives

- ❖ To identify community characteristics of MSRGN zip-code areas with and without HPSA designations.
- ❖ To determine barriers to care outside of the healthcare delivery system.

## Methods

- ❖ We used Medicare data files cross-referencing HPSA designations by zip code to identify underserved areas of the MSRGN.
- ❖ We linked HPSA designated zip codes to county-level data from the HRSA-produced 2015-2016 Area Health Resource File to calculate descriptive statistics for community characteristics of the underserved communities, including race/ethnicity, poverty, unemployment, and insurance coverage.
  - Additional county-level health system measures were also included (e.g. genetics providers).
- ❖ Results were reported separately for communities with any HPSA (dental or primary care) and no HPSA designation.



Figure 1. The Mountain States Regional Genetics Network.

Community Characteristics	Counties with HPSA Designation (PC and/or MH)	Counties without HPSA Designation
Unemployment Rate	5.3%	4.5%
Persons in Poverty	17.1%	14.9%
Persons under age of 18 in Poverty	24.2%	20.6%
Persons in Deep Poverty	7.4%	7.0%
Persons under age of 18 in Deep Poverty	10.6%	9.5%
Persons <65 years without Health Insurance	17.1%	15.3%
Persons <19 years without Health Insurance	10.0%	8.4%
# of Non-English Speaking Persons, 5-17 years	16,614	96,190
% Black	4.0%	8.8%
% American Indian	3.8%	2.6%
% Hispanic	28.1%	28.1%
3 Year Total Births	3,199	20,487
Per Capita Income	\$40,262	\$46,471
Avg. # of Medical Genetics Providers in Patient Care	0.53	5.05

Figure 2. Community Characteristics of MSRGN Counties with at least one HPSA-designated Zip Code  
note: figures provided are mean values across all counties in each category

## Results

- ❖ 59% of MSRGN zip codes are designated HPSAs.
- ❖ HPSAs are located in counties with higher:
  - Average unemployment rate (5.3% versus 4.5% in non-HPSA areas),
  - Population under 18 in poverty (24.2% vs 20.6%),
  - Severe poverty (10.6% vs 9.5%), &
  - Average uninsured rate (10% vs 8.4%).
- ❖ HPSAs are also located in counties with:
  - Larger populations of American Indians (3.8% vs 2.6%), &
  - Smaller populations of African Americans (4% vs 8.4%).
- ❖ Hispanic populations within HPSA primary care designated areas were slightly larger than in non-HPSA areas (31.1% vs 28.1%), although there was no observed difference in the Hispanic population for HPSA overall (primary care and mental health).
- ❖ A larger number of medical genetics providers are in patient care in non-HPSA areas compared to HPSA areas (on average, 5.05 vs 0.53 in the county)

## Conclusions

While MSRGN communities face considerable challenges related to provider shortages, they also encounter potential barriers arising from socio-demographic community characteristics.

## Public Health Implications

- ❖ Interventions to increase genetic and other services should consider how the community characteristics influence outcomes, and whether interventions address non-provider barriers to care.
- ❖ Additional knowledge of underserved communities will facilitate identification of comprehensive approaches to improve access to care and promoting equity in the MSRGN.
- ❖ Strategic partnerships between public health, social services, and healthcare systems may be key to addressing all community needs, including access to care and health equity.