

An Update on the UArizona College of Health Sciences Health Professional Programs



College of
Health Sciences

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No disclosures to report



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“As Arizona continues to grow and attract businesses and families, it’s critical that we have qualified healthcare professionals to keep our state safe and healthy, I am extremely encouraged by the efforts of our state universities and am confident that these new programs will help close the gap so many Arizonans are feeling when it comes to accessing quality healthcare services. We are stronger when every single Arizonan can get the care they need, and I am committed to getting that done.”

Governor Katie Hobbs – 9/29/23

AZ Healthy Tomorrow



College of Health Sciences

- Approved by Arizona Board of Regents in June 2023
- Supporting health professional programs and new program development
- Current – Clinical Translational Sciences; Genetic Counseling
- Developing – Midwifery, Doctor of Physical Therapy, Physician Assistant subject to accreditation approvals



“Genetic Counselors – Professionals who have specialized education in genetics and counseling to provide personalized help patients may need as they make decisions about their genetic health.”

National Society of Genetic Counselors



Genetic Counseling

- Board certified by the American Board of Genetic Counseling
- Highly trained in genetics, genetic testing, and counseling
- Deliver pre and post test counseling
- Work with the health care team to identify appropriate testing
- Work in specialties including prenatal, pediatrics, adult, cancer, etc.

Barriers to Accessing Clinical Genetics

01

Insufficient number
of genetics
providers

02

Distance to care

03

Lack of recognition
among primary care
providers about the
need for referral to
genetics clinics

04

Poor insurance
coverage

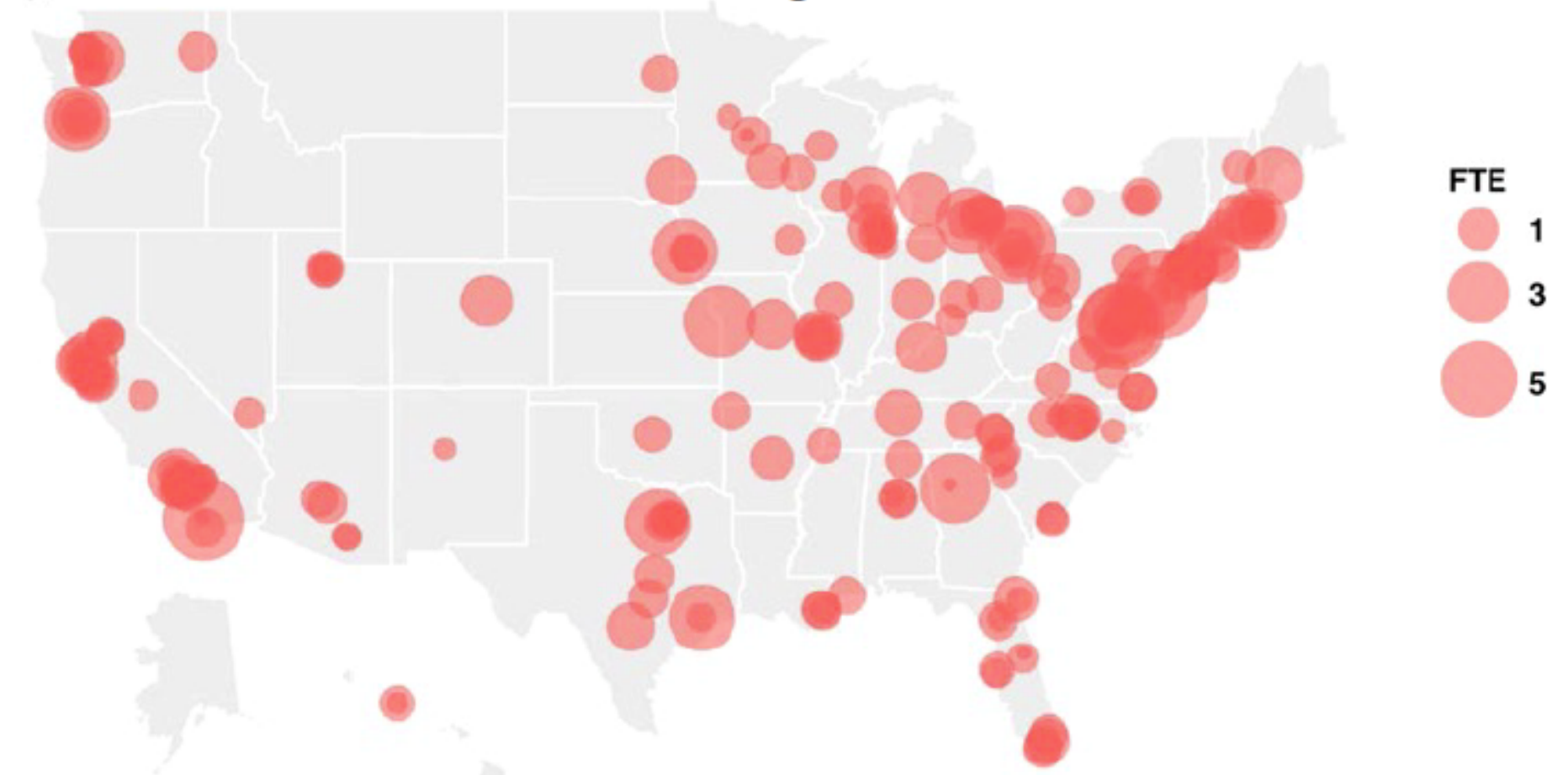
05

Misconceptions
about genetics
services

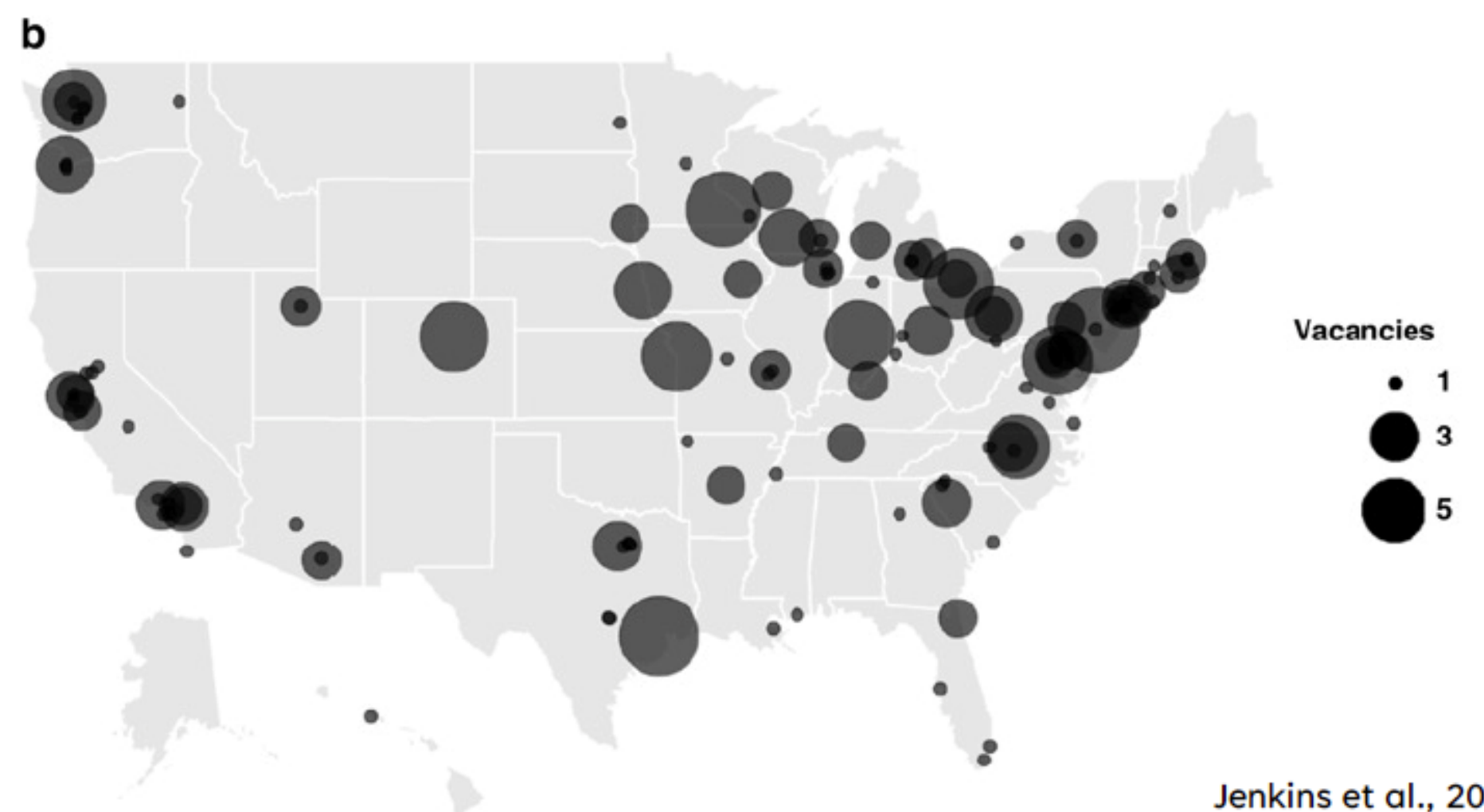
Lack of Clinical Medical Geneticists

- In the US, there are currently about **1,800 certified clinical medical geneticists** (ABMGG Statistics, 2021)
- Nationwide, there are only about **0.2 practicing clinical geneticists per 100,000** people (Maiese et al., 2015)
- Unfilled clinical geneticist positions at many institutions **unfilled for >3 years** (Jenkins et al., 2019)
- 39% of nonemergency patients **waiting >3 months** for a clinical geneticist appointment (Jenkins et al., 2019)

a Locations of Practicing Medical Geneticists

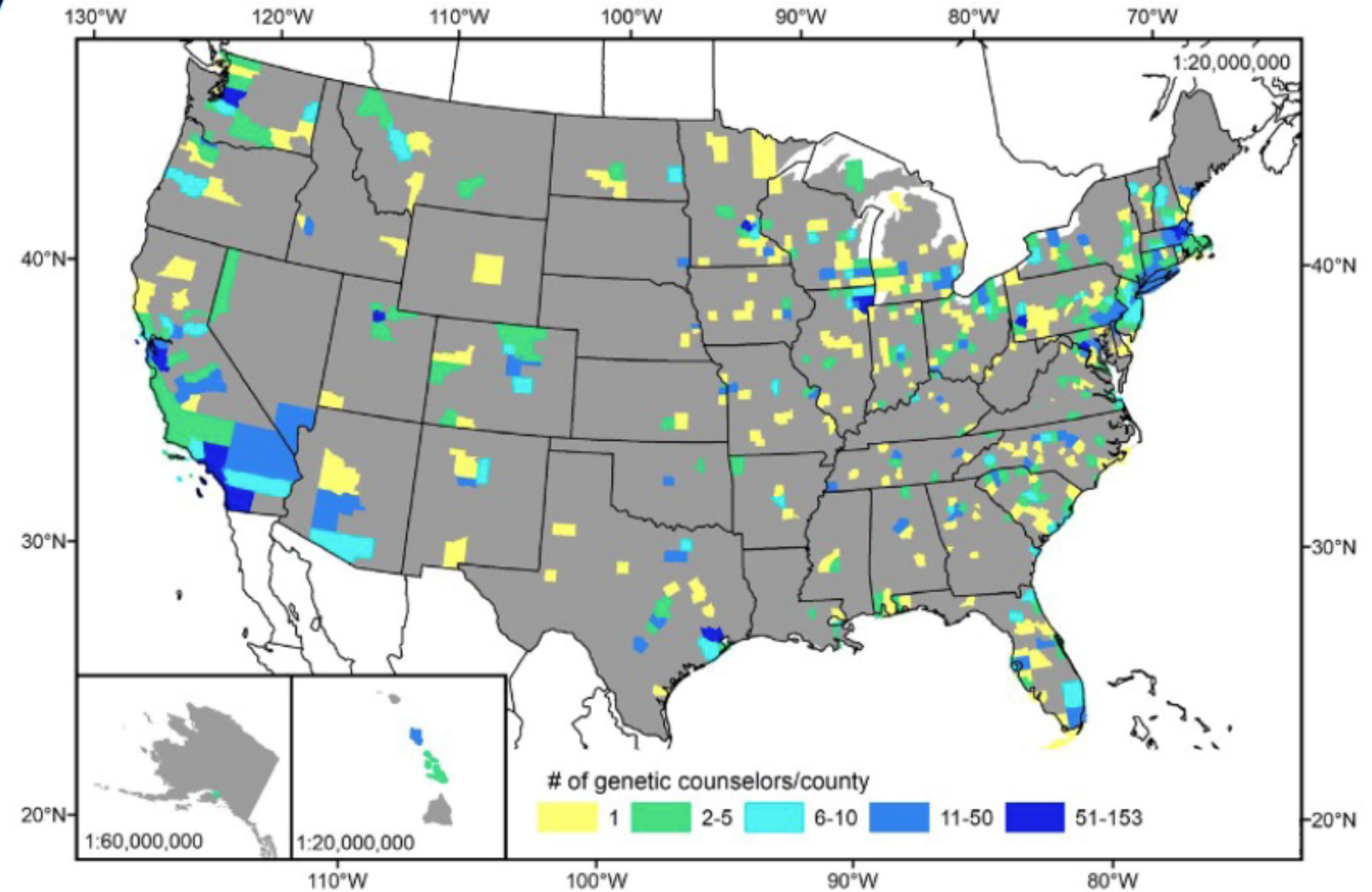


b Locations of Medical Geneticists Job Vacancies



Lack of Genetic Counselors, Especially in Rural Areas

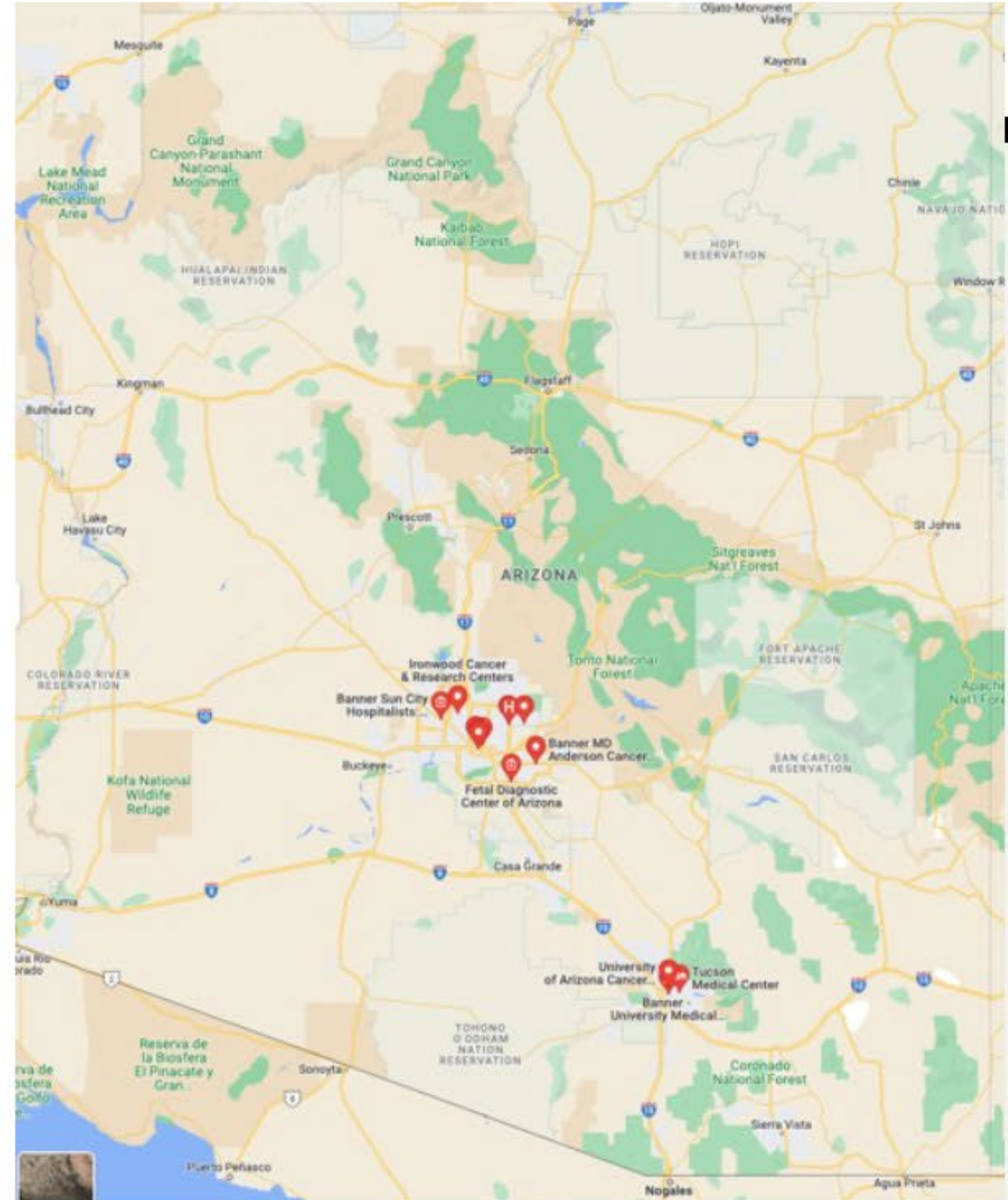
- Workforce projections estimate **demand of 1 FTE *clinical* genetic counselor per 75,000** (Hoskovec et al., 2018)
- Nationwide 1 genetic counselor per 71,000 individuals (Triebold et al., 2020)
 - 49% of genetic counselors report working in non-direct or mixed patient care (2022 NSGC PSS)
- Only **17% of US counties** has at least 1 genetic counselor (Triebold et al., 2020)



Triebold et al., 2020

Location of Clinical Geneticists and Genetic Counselors in Arizona

- All clinical genetic counselors, medical geneticists and genetics nurses are located in Phoenix and Tucson
 - Nogales: 66 miles
 - Sierra Vista: 76 miles
 - Flagstaff: 145 miles
 - Yuma: 185 miles
 - Page: 273 miles



Data from ABGC Database

Genetic Counseling – Challenges

- Growing programs requires clinical training sites
- Clinical training sites require genetic counselors
- Shortage impacts both

Genetic Counseling – Potential Solutions

- Licensure – SB 1043 (Sponsor – Shope)
- Establishes licensure requirements, regulations, and standards for genetic counselors in Arizona
- Do Pass Amended from Senate Committee of the Whole – 1-20-2024
- Licensure may lead to stronger opportunity for reimbursement of services
- Stronger financial support by Medicare/Medicaid could lead to expansion of access to licensed providers



“Physical Therapists are licensed doctors who work with multiple patient populations impacted by disease, injury, and movement dysfunction. They optimize quality of life by maintaining, restoring, and improving patient’s ability to move, function, and live more active lifestyles.”

American Physical Therapy Association



Physical Therapy – Current State

- Severe shortage of PTs in southern Arizona
- Currently only 48 licensed PAs per 100,000 in Arizona (Ranked among lowest in nation)

Physical Therapy – Challenges

- DPT students must have on site supervision by a licensed DPT
- Currently DPTs may only supervise a total of 3 personnel which includes students, PT aides, etc.
- PT are not currently classified as primary health providers which limits their ability to bill for primary health services

Physical Therapy – Potential Solutions

- Developing clinical observation and service-learning opportunities at clinics within driving distance of campus
- DPT faculty could support triage clinics one day per week supported by 3 students
- Faculty could be hired to work extended contracts and work with full time students for up to 6 weeks
- Graduates will be encouraged to work in rural rotations and be part of the bidirectional pathways that help solve these challenges



“PAs are licensed clinicians who practice medicine in every specialty and setting.”

American Academy of PAs



Physician Assistant – Current State

- 3,728 board certified PAs residing in Arizona
- Profession grew by 28.3% between 2018 and 2022*
- 93% of that growth was in urban communities*

Large Rural

4.0%

Small Rural

1.7%

Isolated Rural

1.3%

*National Data

Courtesy of National Commission on Certification of Physician Assistants 2022 Statistical Profile of Board-Certified PAs



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Physician Assistant - Challenges

- 93% Urban
- New PA Practice Act Changes
- Collaborative Practice for Licensed PAs who have worked at least 8,000 clinical hours and who are certified by the Arizona Regulatory Board for PAs to work without supervision
- Also allows any PA to perform any legal medical service for which they have been prepared by education, training, and experience and have been found competent to perform

Physician Assistant– Potential Solutions

Bidirectional
Pathways





“Midwifery is defined as “skilled, knowledgeable and compassionate care for childbearing women, newborn infants and families across the continuum from pre-pregnancy, pregnancy, birth, postpartum and the early weeks of life.”

World Health Organization



Midwifery – Current State

- Midwifery DNP Specialty Track approved by ABOR in 2022
- Currently enrolling students in our College of Nursing
- Significant Maternal Morbidity/Mortality concerns in the state and nationally

Severe Maternal Morbidity: 2016-2019

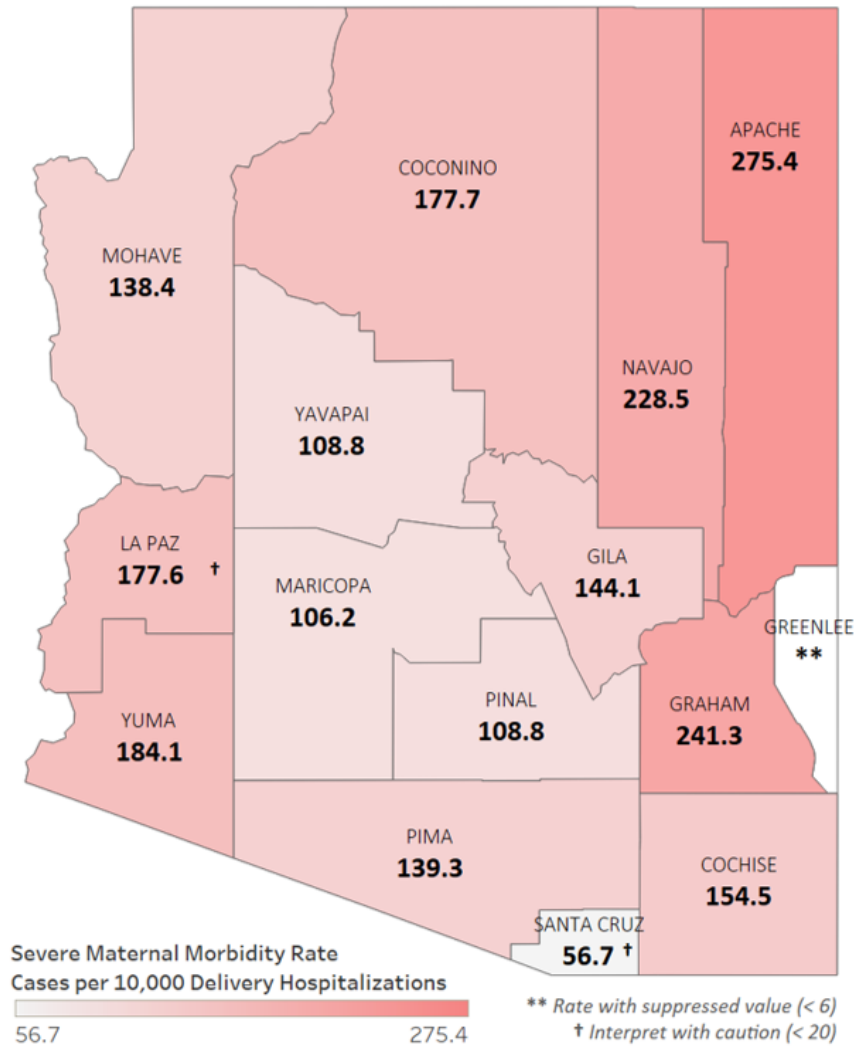
In-State Delivery Hospitalizations of Arizona Residents

119.4 SMM Rate per 10,000 Arizona Resident Delivery Hospitalizations, 2016-2019

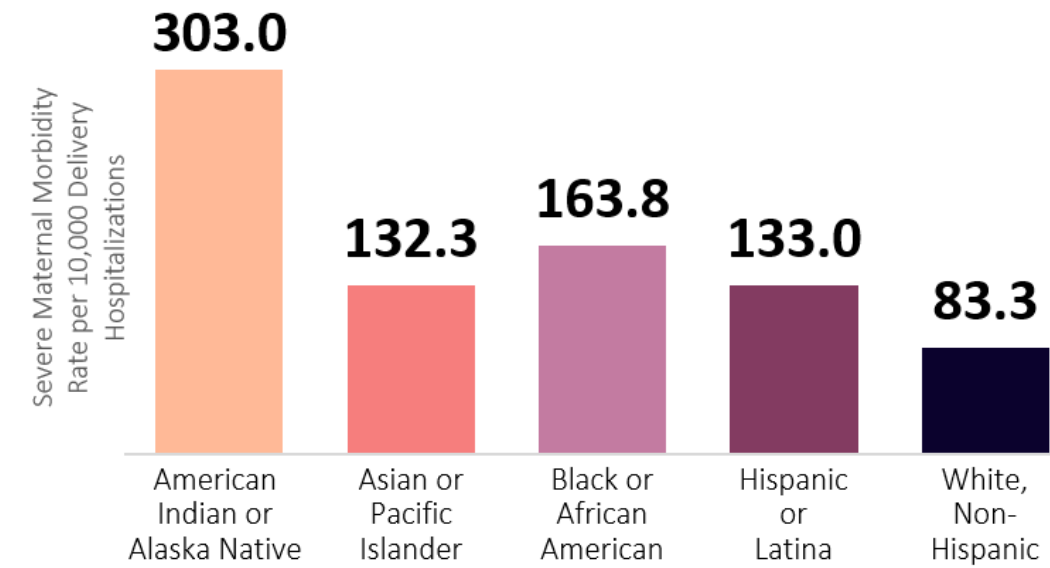
Severe Maternal Morbidity (SMM):

Unexpected conditions or outcomes of pregnancy, delivery, or postpartum that aggravate or lead to significant negative effects on a woman's health and wellbeing.

SMM Rate by County of Residence



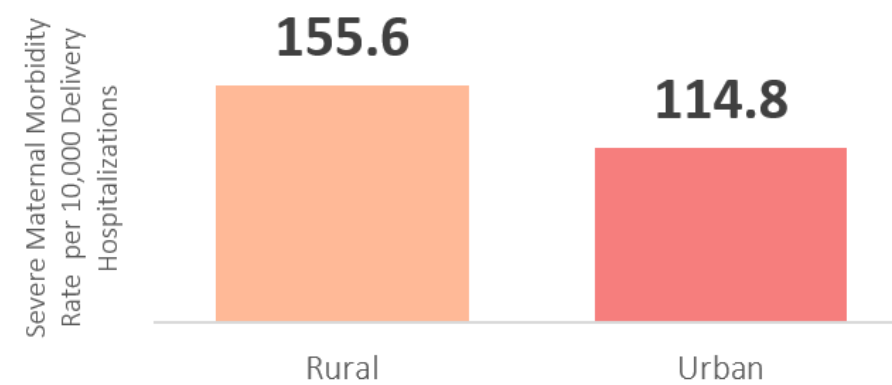
SMM Rate by Race and Ethnicity



Top Diagnoses Indicators of SMM

Adult Respiratory Distress Syndrome	8.4%
Acute Renal Failure	7.7%
Sepsis	7.6%
Disseminated Intravascular Coagulation (DIC)	6.5%
Acute Heart Failure / Pulmonary Edema	6.0%
Shock	5.6%

SMM Rate for Urban and Rural Counties



Rural counties are Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Mohave, Navajo, Santa Cruz, and Yavapai; Urban counties are Maricopa, Pima, Pinal, and Yuma; Based on definitions used by the ADHS Bureau of Public Health Statistics.

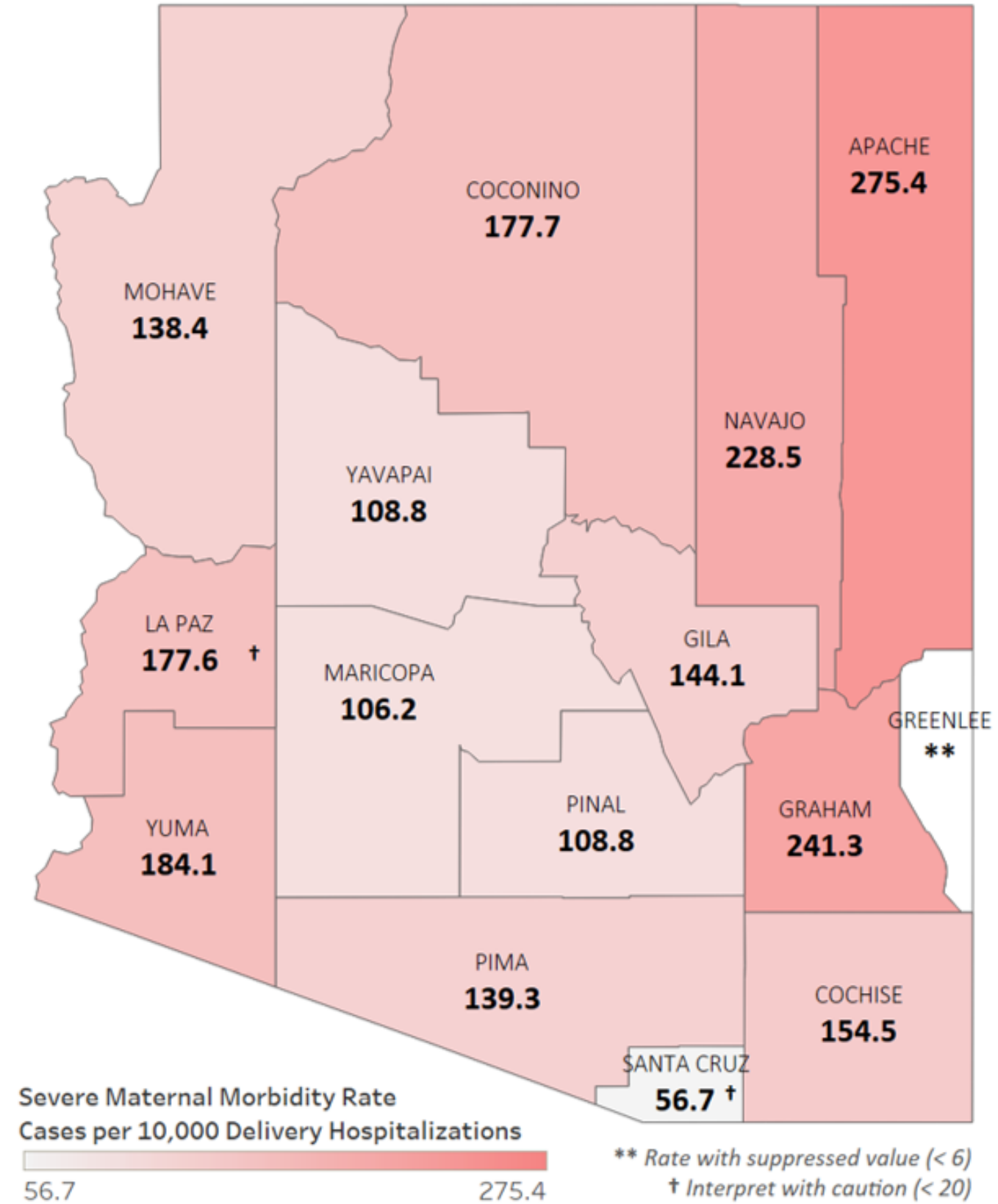
Top Procedure Indicators of SMM

Transfusion	67.6%
Hysterectomy	7.8%
Ventilation	4.5%

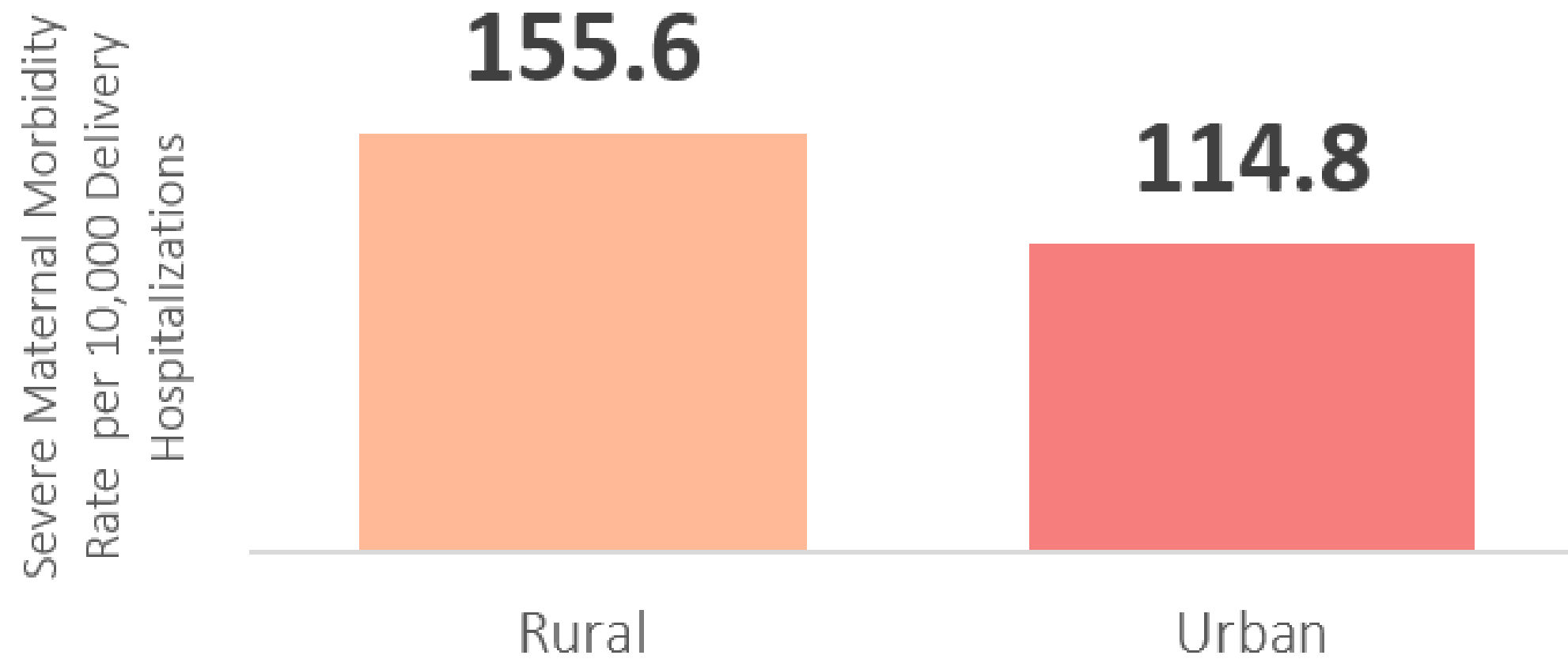
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Midwifery – Potential Solutions

- Need increases in the number of underrepresented minority midwives who are licensed in the state (Primarily Hispanic and Native Americans)
- Recommend all uninsured individuals should receive covered prenatal and postpartum care from Medicaid to reduce mortality and morbidity
- Reduce Barriers to Midwifery Education



Summary

- Governor Hobbs' AZ Healthy Tomorrow initiative is underway at U of A

Summary

- Genetic Counseling SB1043 has the potential to positively impact the delays for patient's seeking genetic information

Summary

- Physical Therapy and PA are on track to expand workforce in Arizona

Summary

- Maternal Morbidity and Mortality numbers must come down (Midwifery)

Summary

Bidirectional Pathways



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Q U E S T I O N S ?



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T H A N K Y O U



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