

IMMUNIZATIONS IN THE MOUNTAINS

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BOARD CERTIFIED IN IM/PED/ADOLESCENT

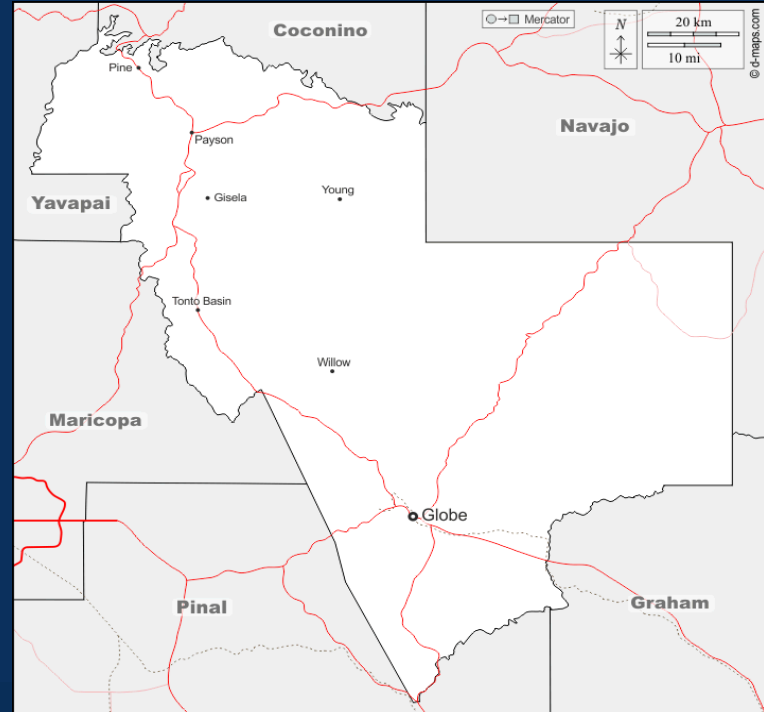
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Howdy from Payson!



Gila County

5000 square miles

50,000 people

50% women

\$50,000 median
income

60% white

20% Native American

20% Hispanic





OBJECTIVES

- REVIEW CHALLENGES OF RURAL MEDICINE AND VACCINES
- DISCUSS FRAMEWORK FOR VACCINES AND INTERACTIONS WITH PATIENTS
- EXPLORE NOVEL APPROACHES TO IMMUNIZATION COMPLIANCE UTILIZING HEALTH PROFESSIONAL LEARNERS.

I HAVE NO CONFLICT OF INTEREST OR FINANCIAL GAINS FROM THIS PRESENTATION

Barriers to Immunizations in Rural Areas

- Geography
 - Supply
 - Internet
 - Power
- Trained Personnel

Albers AN, Thaker J, Newcomer SR. Barriers to and facilitators of early childhood immunization in rural areas of the United States: A systematic review of the literature.

Prev Med Rep. 2022 Apr

25;27:101804.

Review revealed a **limited scope of evidence** on barriers to and facilitators of early childhood immunization in rural communities

Tsai Y, Lindley MC, Zhou F, Stokley S. Urban-Rural Disparities in Vaccination Service Use Among Low-Income Adolescents. J Adolesc Health. 2021 Jul;69(1):114-120.

The analysis included 2,473 counties located in 38 states. The mean proportion of adolescents making ≥ 1 vaccination visit at the county level was low (36.09%) and was lower in rural than in urban counties (31.99% vs. 36.85%, $p < .01$).

The number of primary care physicians (PCPs) was positively associated with vaccination service use in rural counties.

Freeman RE, Leary CS, Graham JM, Albers AN, Wehner BK, Daley MF, Newcomer SR. Geographic proximity to immunization providers and vaccine series completion among children ages 0-24 months. *Vaccine*. 2023 Mar 22

Long travel distances do not appear to be a major barrier to childhood vaccination in Montana. Other challenges, including limited resources for clinic-based strategies to promote timely vaccination and parental vaccine hesitancy, may have greater influence on rural childhood vaccination.



Rural Population Rubric

1. **Rural Legacy**-Maybe high school educated, lower income parents with more children. Make decisions using traditions they've learned from growing up in rural/frontier and extended family. "Leary learners"
2. **Rural Choice**- Middle income parents, finished high school and more. Make decisions on "rules" from established traditions in religion, local economy, and personal history. Desire relational learning.
3. **Town Choice**-College educated re-located. Make decisions based on their own analysis and interpretations of evidence.

Maine Center for Disease Control & Prevention

Case Study #1

Anna is a 21 yo mom with two littles and one newborn. She finished high school and lives on a ranch with her husband, the father of her babies. She has not immunized her children because her ranching family says vaccines are "poison". Her best friend's newborn. was discharged from the ICU with pertussis.



Rural Population Rubric

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Case Study #2

Sally and Joe are in their late 30's, professions, struggling with the decisions of 2 month immunizations. They reluctantly agreed to the Hep B at delivery but they "felt shamed" into that decision. Both have searched internet sources and have come with a list of safe vaccines. Recently moved to Payson.



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Case Study #3

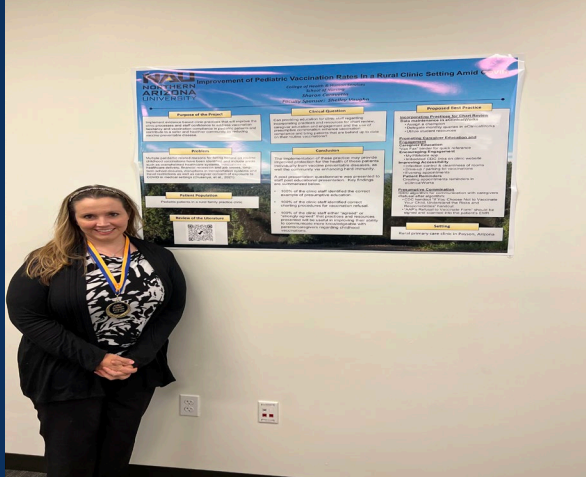
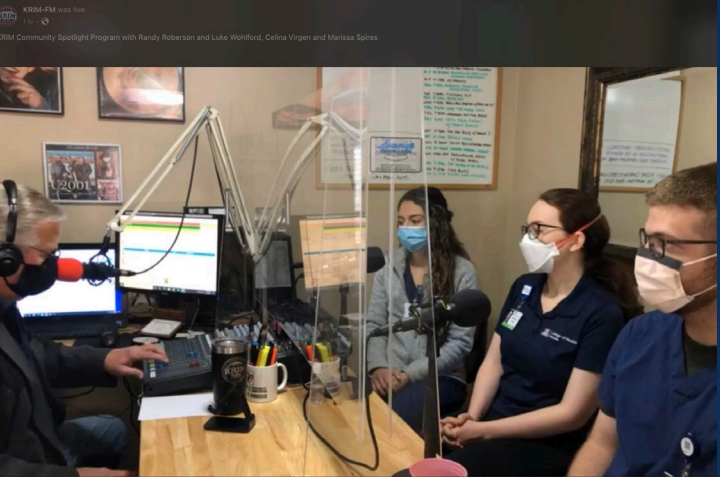
Mary brings her 14 yo daughter for her overdue well check. While walking in the door, Mom states to the MA "We are not doing any of those sex vaccines. She is only getting the ones needed for high school." The daughter interrupts, "TicTok says I need the HPV so I don't get warts in my throat."

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VACCINES AND LEARNERS IN RURAL COMMUNITIES







N394P



**THANK YOU FOR
BEING IN THE SMALL
BOAT WITH RURAL
COMMUNITIES!**

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