

# Stacking the Deck: The University of Missouri Rural Scholars Program

Jana Porter, MS; Meghan Meyers, MHA, MPH; Laura Morris, MD, MSPH; Allison  
Fuemmeler, MSL; Kathleen Quinn, PhD



## School of Medicine

University of Missouri

**The RTT Collaborative Annual Meeting 2023**

**Missoula, MT**

**April 5-7, 2023**

# Acknowledgment and Disclosure

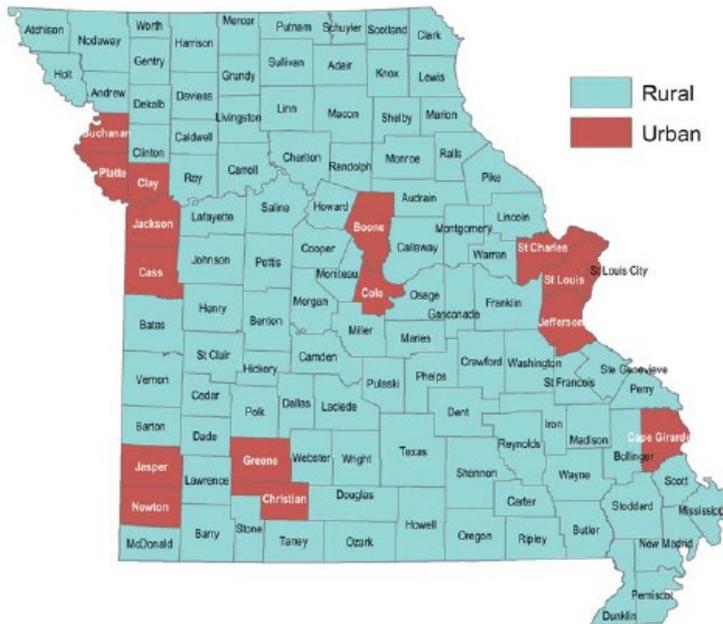
- The MU School of Medicine Rural Scholars Program is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling \$1,102,305 with 10 percent financed with nongovernmental sources.
- The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS or the U.S. Government.

# Session Overview

- Introduction to factors influencing rural practice choice
- History and Overview of the MU Rural Scholars Program
- Outcomes of the MU Rural Scholars Program
- Q&A

# Rural Missouri

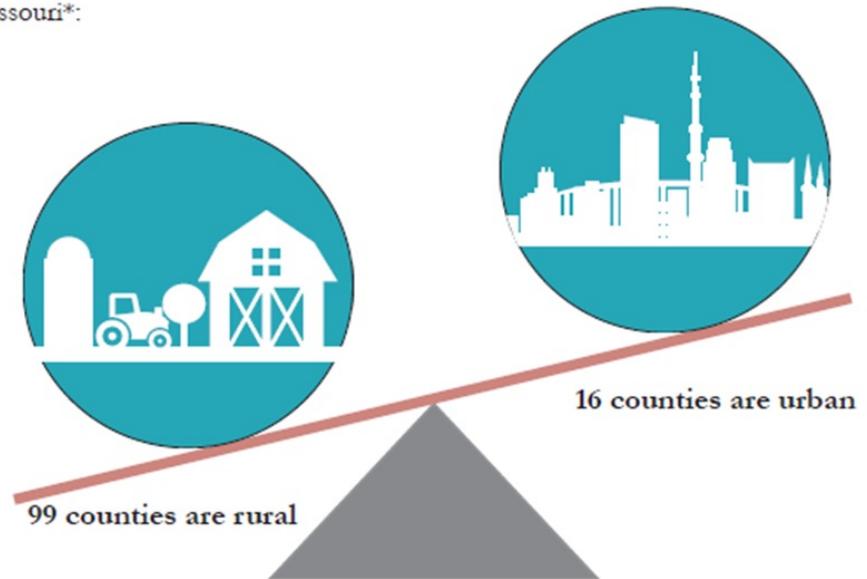
Rural/Urban County Classification  
Missouri, 2019



Source: Missouri Department of Health and Senior Services, Bureau of Health Care Analysis and Data Dissemination.

Total Population: 6.177 Million  
(2022)  
Population per square mile 89.5

Based on this criteria and using 2019 population estimates of the 115 counties in Missouri\*:



34% of Missouri's total population lives in rural areas.

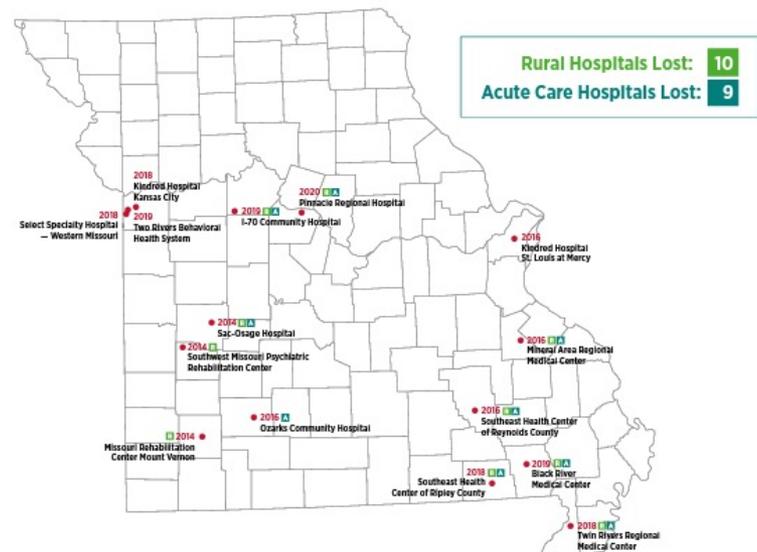
\*St. Louis City is an independent city which functions as its own county. It is therefore included as one of the 16 urban counties.

# Rural Health Care Access

- Missouri has a total of 8,135 primary care, mental health, and dental health providers, of which 1,696 (21%) practice in rural counties.
- 83 of the 106 Primary Care geographic and population based HPSAs in Missouri are in rural areas.
- From 2014-2020, 10 rural hospitals closed, all located in geographic, and population based HPSAs.
- 55 rural counties without a hospital.

## 15 Hospital Closures in Missouri

Since 2014



# What can we do?

## Factors influencing recruitment

- Rural upbringing (Daniels et al., 2007; Hegney et al., 2002; Rabinowitz et al., 1999a; Tolhurst, 2006).
- Rural residency experience (Daniels et al., 2007; Pathman, Steiner, Jones, & Konrad, 1999).
- Rural-focused medical school track (Rabinowitz et al., 2005; Talley, 1990).
- Community service orientation (Daniels et al., 2007; Madison, 1994; Tolhurst, 2006)
- Plans to practice family medicine upon medical school matriculation (Madison, 1994; Tolhurst, 2006).
- Loan repayment program participation (Rabinowitz et al., 2001).

## Factors influencing retention

- Personality and practice compatibility (Cutchin et al., 1994; Hart et al., 2002).
- Reasonable workload and call schedule (Cutchin, 1997a; Pathman et al., 2004; Humphreys et al., 2002).
- Financial sustainability of practice (Pan, Dunkin, Muus, Harris, & Geller, 1995; Rabinowitz et al., 1999a).
- Owning one's own practice (Pathman et al., 2004)
- Employment opportunities for spouse (Han and Humphreys, 2006; Mitka, 2001).
- Parenting a minor-aged child (Pathman et al., 2004)
- Sociocultural integration (Cutchin, 1997a; Han & Humphreys, 2006; Hegney et al., 2002; Pan et al., 1995).

# What can we do?

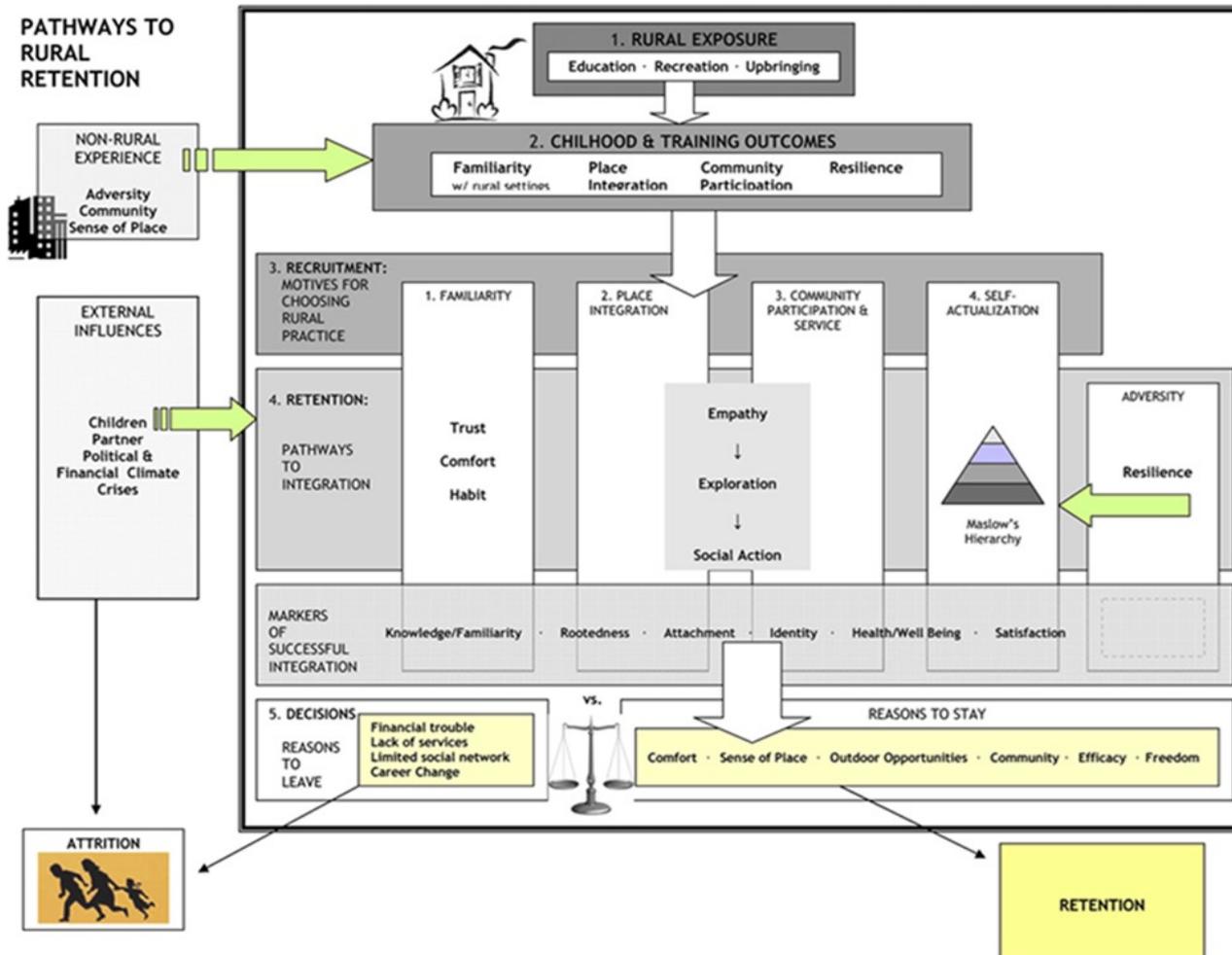
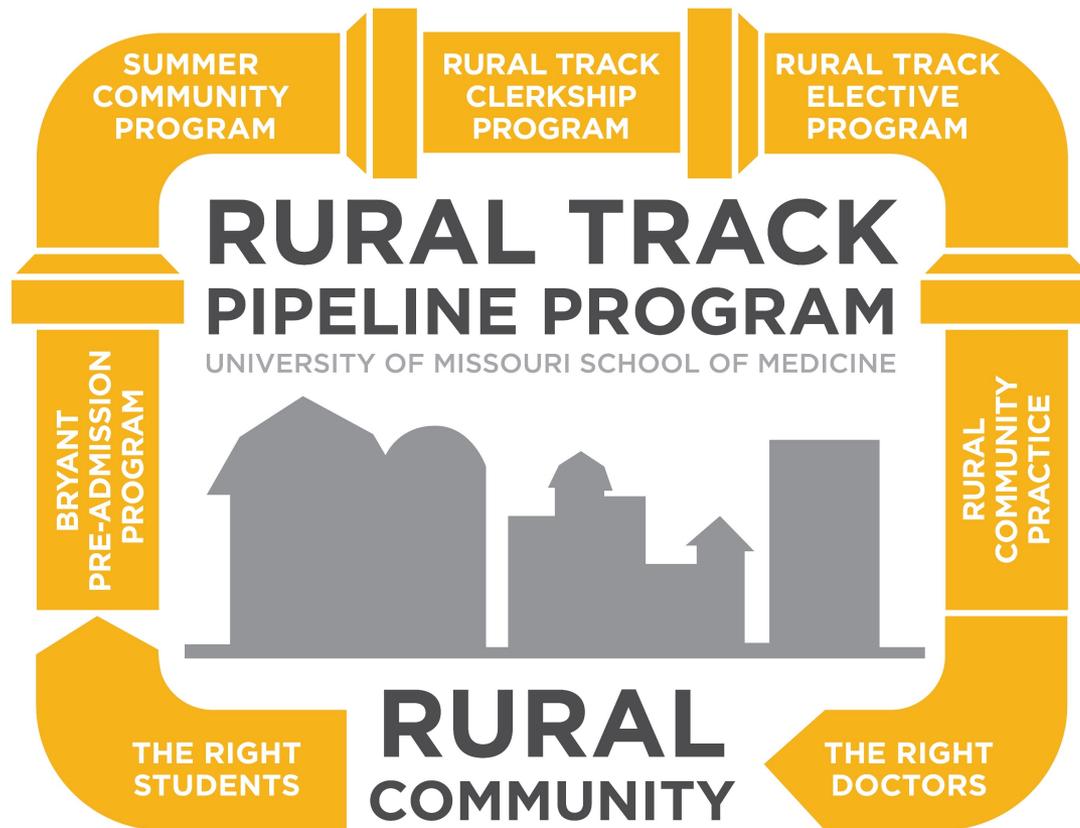


Fig. 3. An integrated conceptual understanding of how rural exposure and upbringing improve rural retention rates among practicing physicians.

Hancock C, Steinbach A, Nesbitt TS, Adler SR, Auerswald CL. Why doctors choose small towns: a developmental model of rural physician recruitment and retention. *Soc Sci Med.* 2009 Nov;69(9):1368-76. doi: 10.1016/j.socscimed.2009.08.002. Epub 2009 Sep 9. PMID: 19747755.

# Existing Pipeline



Established in 1995 to address the maldistribution of physicians in rural Missouri.

# What our research told us

- 2011 - looked at participant outcomes
- Students who complete multiple components of the pipeline:
  - 2-3.3 times more likely to match into family medicine
  - Enter rural practice at higher rates

# Opportunity to fill gaps

- Grant opportunity
  - HRSA Medical Student Education Program
  - Focused on public higher ed institutions located in top quintile of states with projected primary care shortage in 2025.

# Areas to Improve

Rural Background

Integration & Familiarity with Rural  
Places

Community Participation

Building resilience and providing  
support

# What we did?

## Rural Background

- Retain Pre-admitted students
- Provide MCAT Prep Stipends

Integration & Familiarity with Rural Places

Community Participation

Building resilience and providing support

# What we did?

## Rural Background

- Retain Pre-admitted students
- Provide MCAT Prep Stipends

## Integration & Familiarity with Rural Places

- Creation of Rural Scholars Program
- Continuity community assignment
- Creation of longitudinal integrated clerkship

## Community Participation

Building resilience and providing support

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## Rural Background

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## Integration & Familiarity with Rural Places

- Creation of Rural Scholars Program
- Continuity community assignment
- Creation of longitudinal integrated clerkship

## Community Participation

- Required Community Integration Project

## Building resilience and providing support

# What we did?

## Rural Background

- Retain Pre-admitted students
- Provide MCAT Prep Stipends

## Integration & Familiarity with Rural Places

- Creation of Rural Scholars Program
- Continuity Community Assignment
- Creation of longitudinal integrated clerkship

## Community Participation

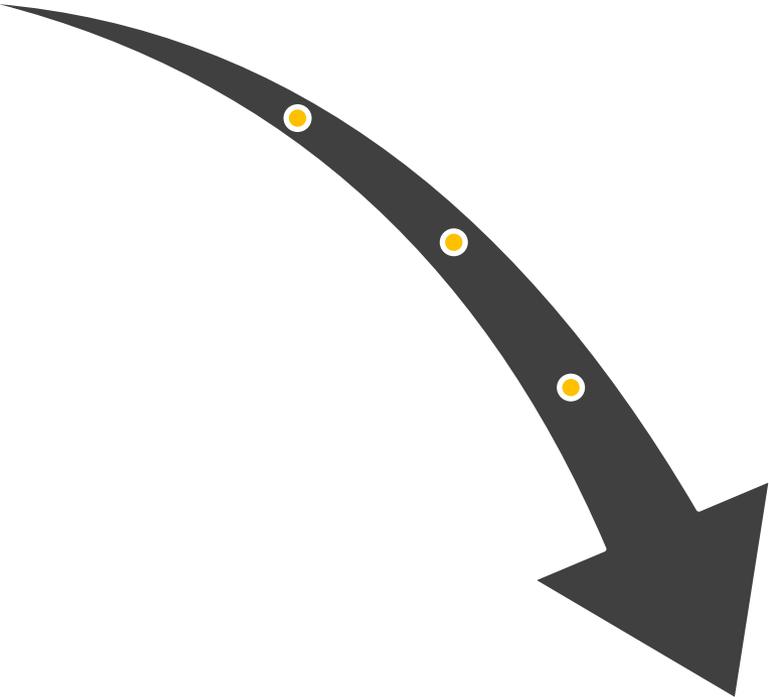
- Required Community Integration Project

## Building resilience and providing support

- Rural Lecture Series and Mentoring

# Two Pathways to Participation

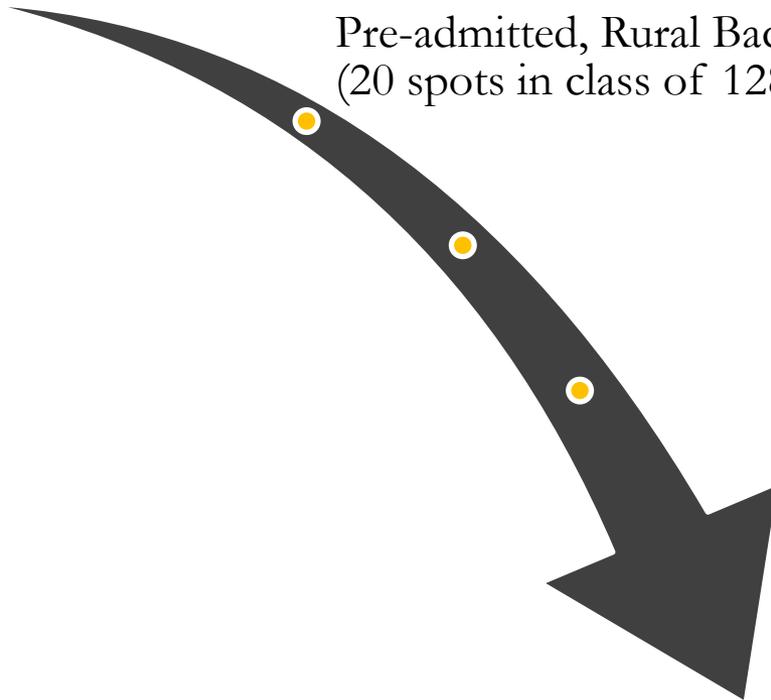
Bryant Scholars



# Two Pathways to Participation

Bryant Scholars

Pre-admitted, Rural Background Students  
(20 spots in class of 128)



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Rural Scholars

Rural or urban background first-year medical students



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Bryant Scholars

Pre-admitted, Rural Background Students  
(20 spots in class of 128)

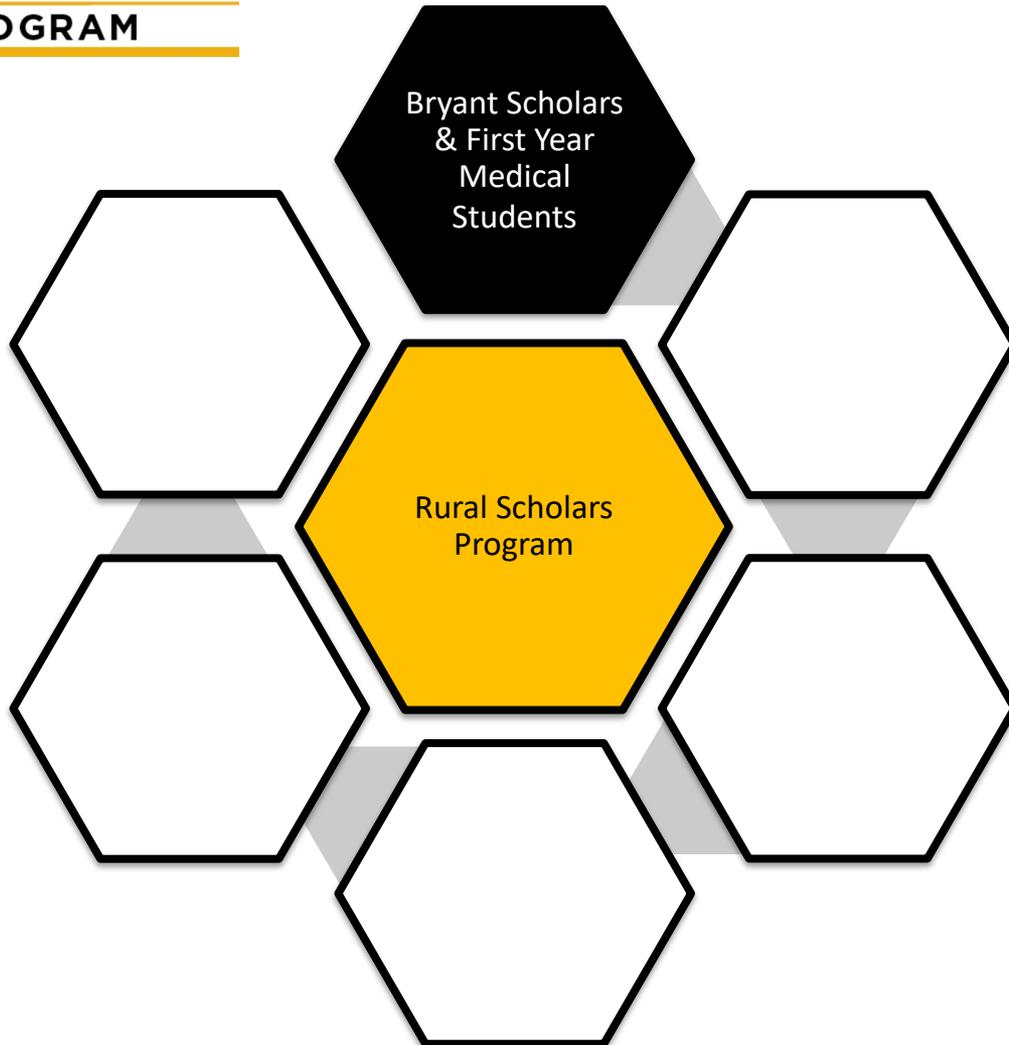
Rural Scholars

Rural or urban background first-  
year medical students

Pipeline Participants  
Up to 25 per class

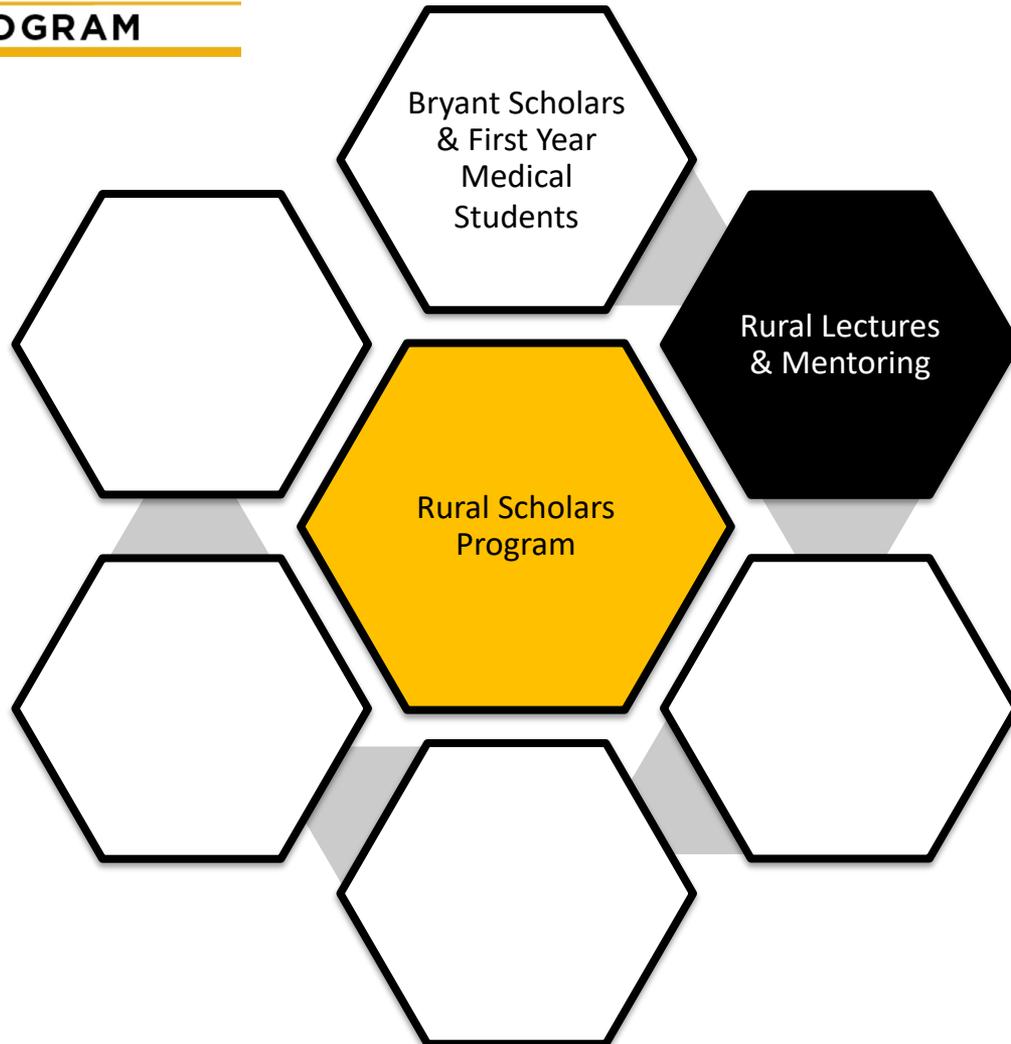


RURAL SCHOLARS  
**PROGRAM**





RURAL SCHOLARS  
**PROGRAM**



# Rural Lecture Series

## Rural Medicine Lecture Series

### MATERNITY CARE CRISIS IN RURAL AREAS

Wednesday, January 25, 2023 | 6:15-7:45pm | Zoom



Dr. Courtney Barnes, MD  
Speaker  
Obstetrics and Gynecology

#### WHO IS INVITED?

Medical, Nursing, Pharmacy, & Health Professions Students  
Bryant Scholars | Residents | Faculty & Staff

#### REGISTER HERE

You will receive a calendar invite once you have registered

Questions? Contact Meghan Meyers at [mrmmw@health.missouri.edu](mailto:mrmmw@health.missouri.edu)

This program is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling \$400,000 with twenty-five percent funded by HRSA/HHS and seventy-five percent funded with non-governmental sources through a contract between the University of Missouri and the Missouri Department of Health and Senior Services, Office of Rural Health and Primary Care (DHSS ORHPC). The contents are those of the authors and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS, or the U.S. Government.

Presented by  University of Missouri  
School of Medicine  
Extension



## Rural Medicine Lecture Series

### COVID-19 AND RURAL HEALTH: A CULTURAL PERSPECTIVE

Wednesday, October 26, 2022 | 6:15-7:45pm | Zoom



Dr. Adaobi Anakwe, PhD, MPH  
Speaker  
MU School of Health Professions



Dr. Laura Morris, MD, MSPH  
Moderator  
MU Rural Track Pipeline Program  
Medical Director

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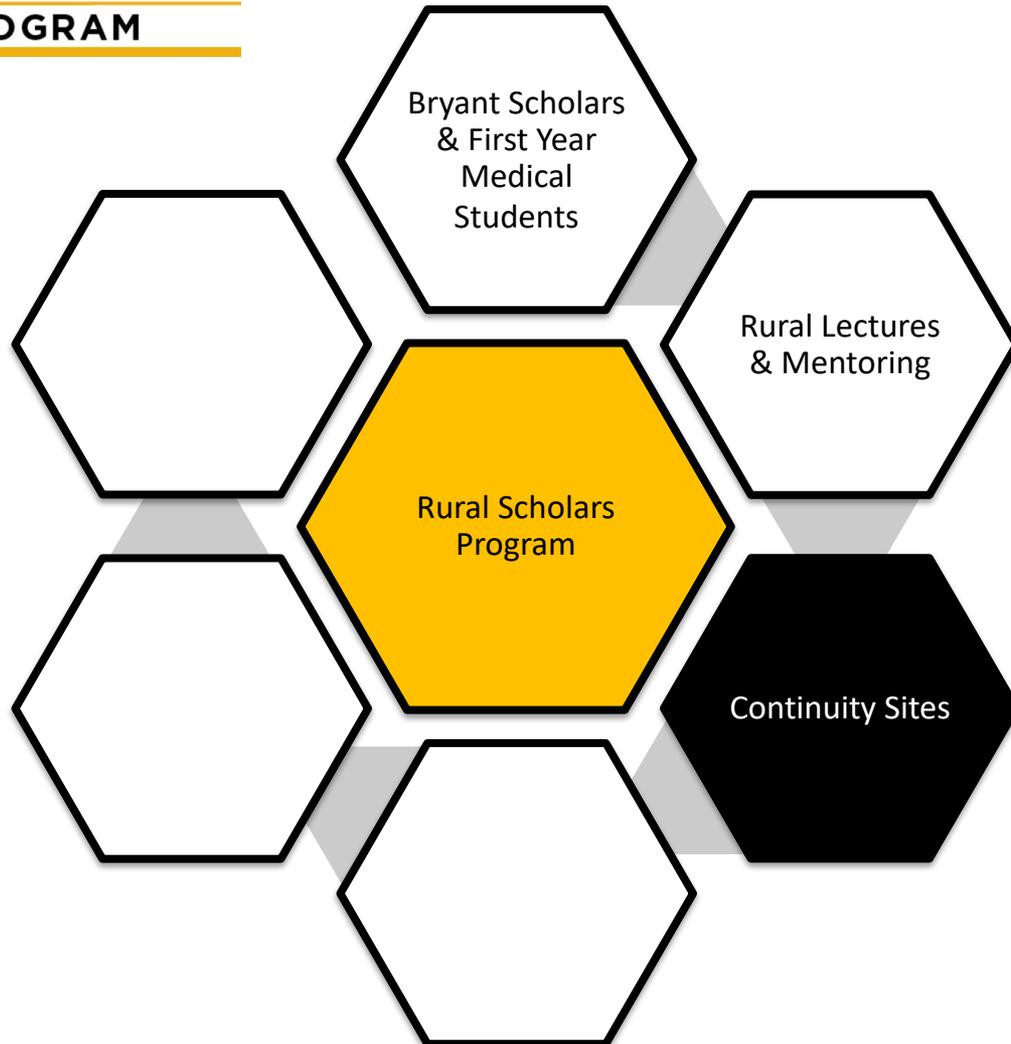
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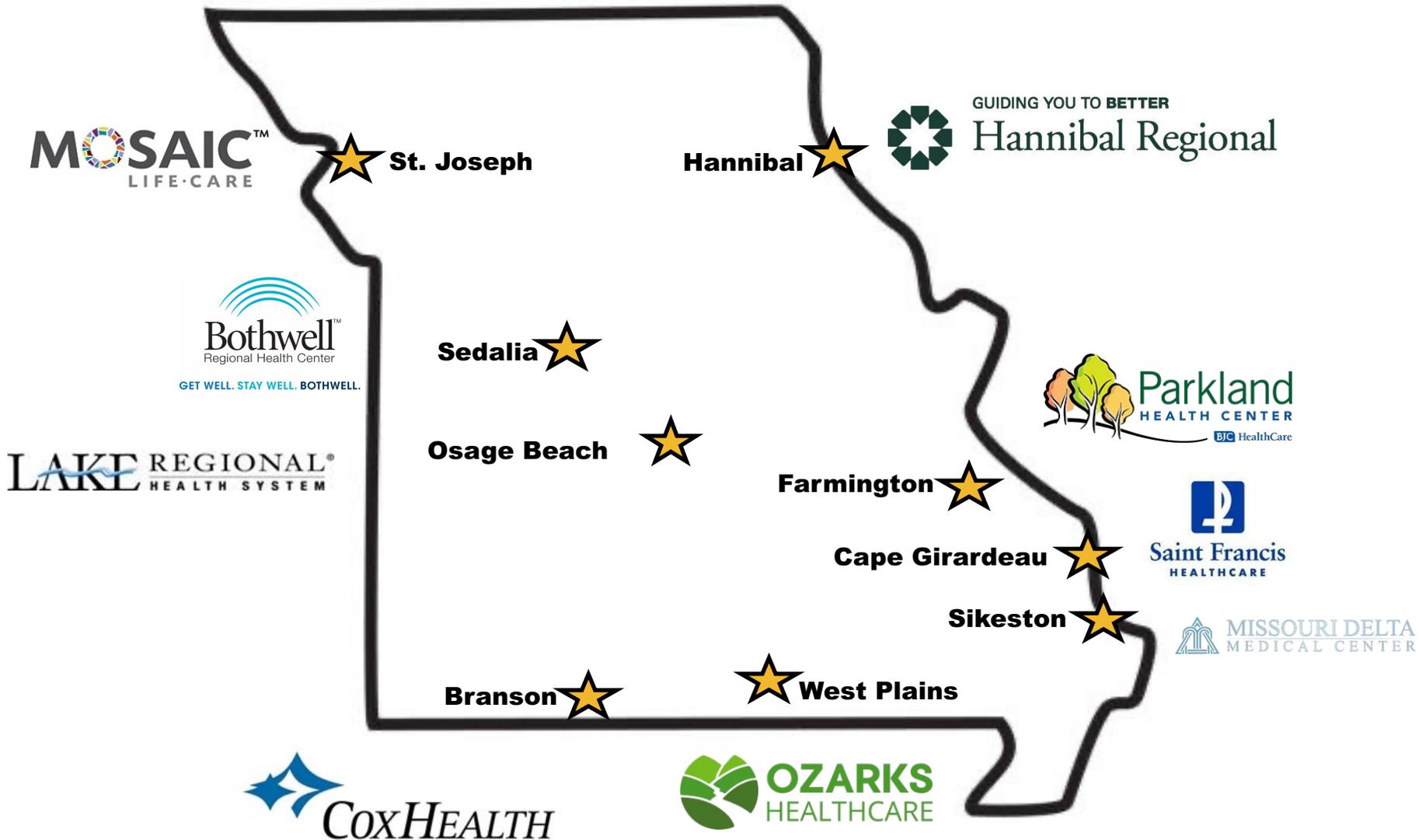




RURAL SCHOLARS  
**PROGRAM**

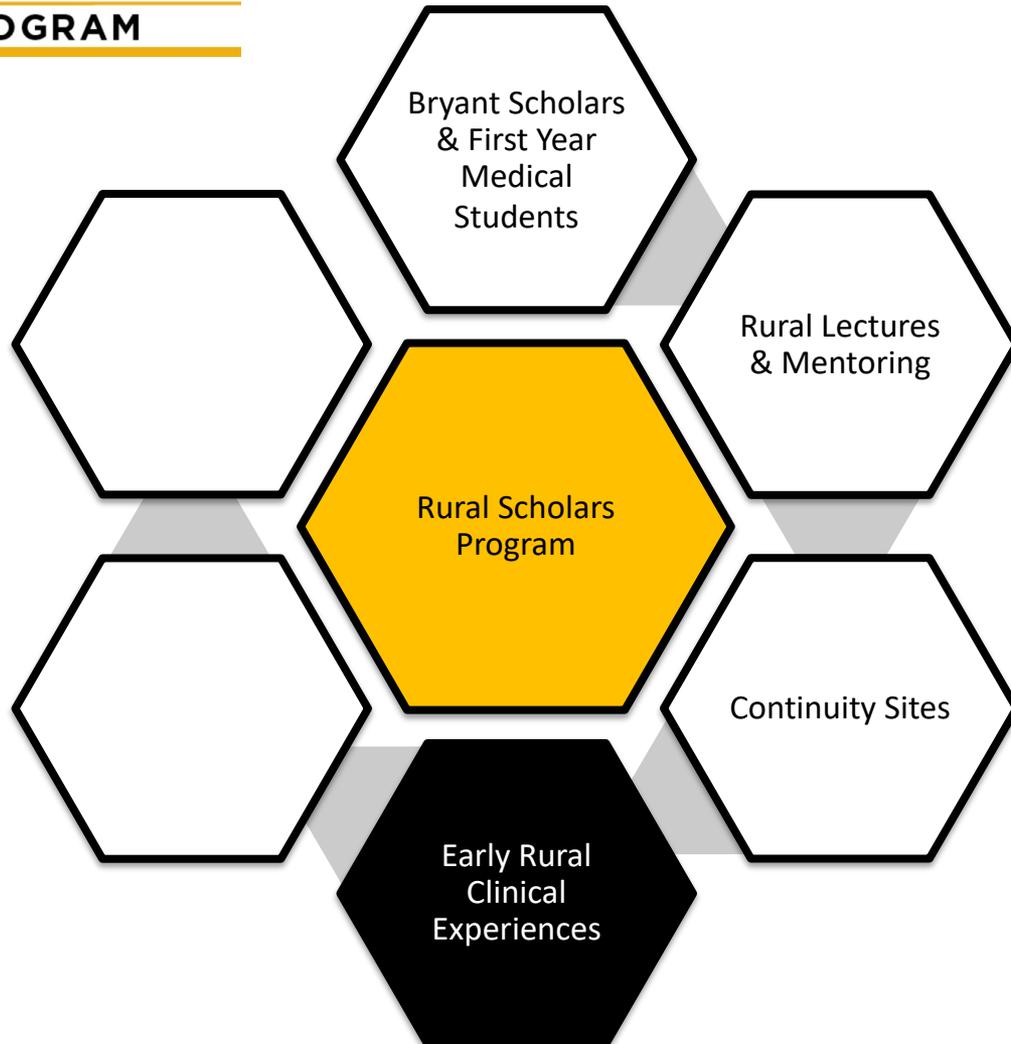


# Continuity Sites





RURAL SCHOLARS  
**PROGRAM**



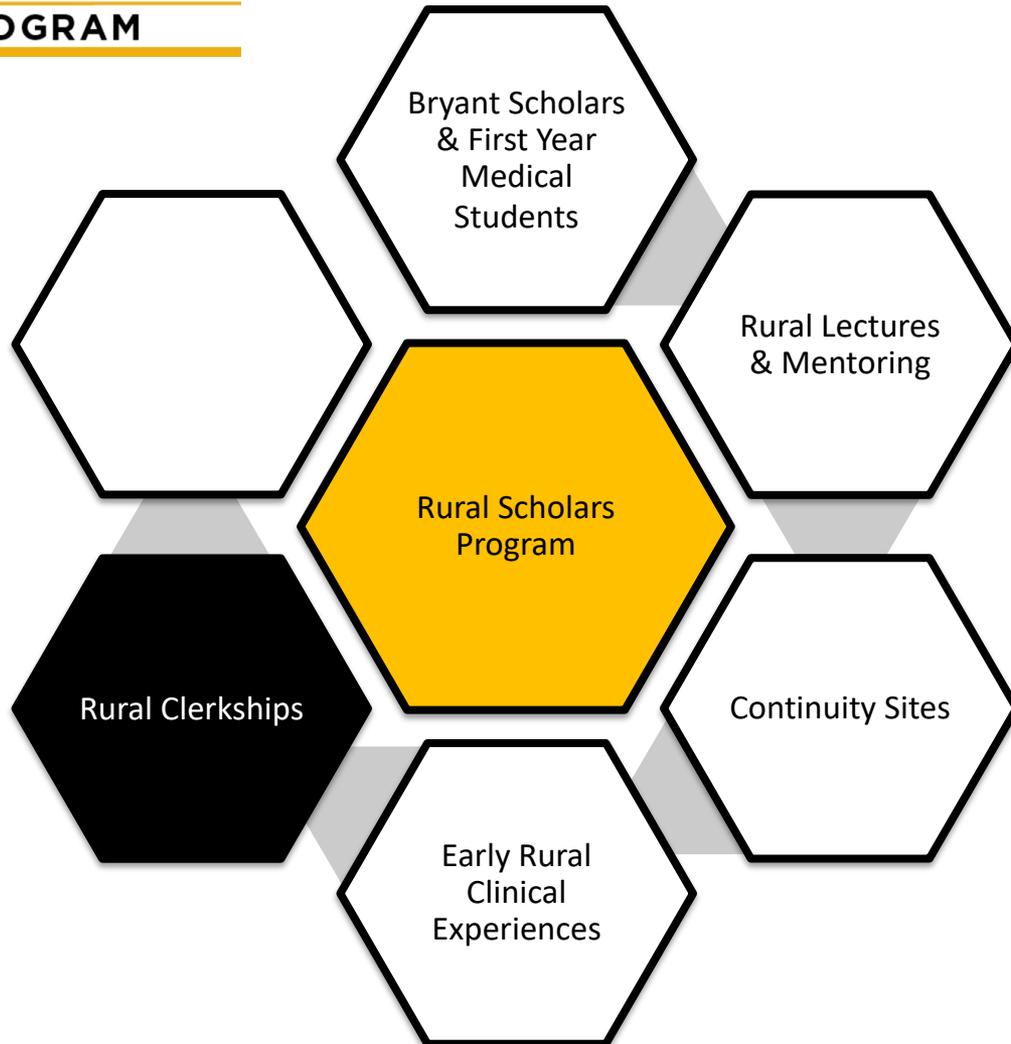
# Summer Community Program

- Clinical opportunity after first year of medical school
- Rural Scholars work with a rural physician for 4 or 6 weeks
- Opportunity to gain history-taking and physical exam skills
- Students see ~600-750 patients during their experience





RURAL SCHOLARS  
**PROGRAM**



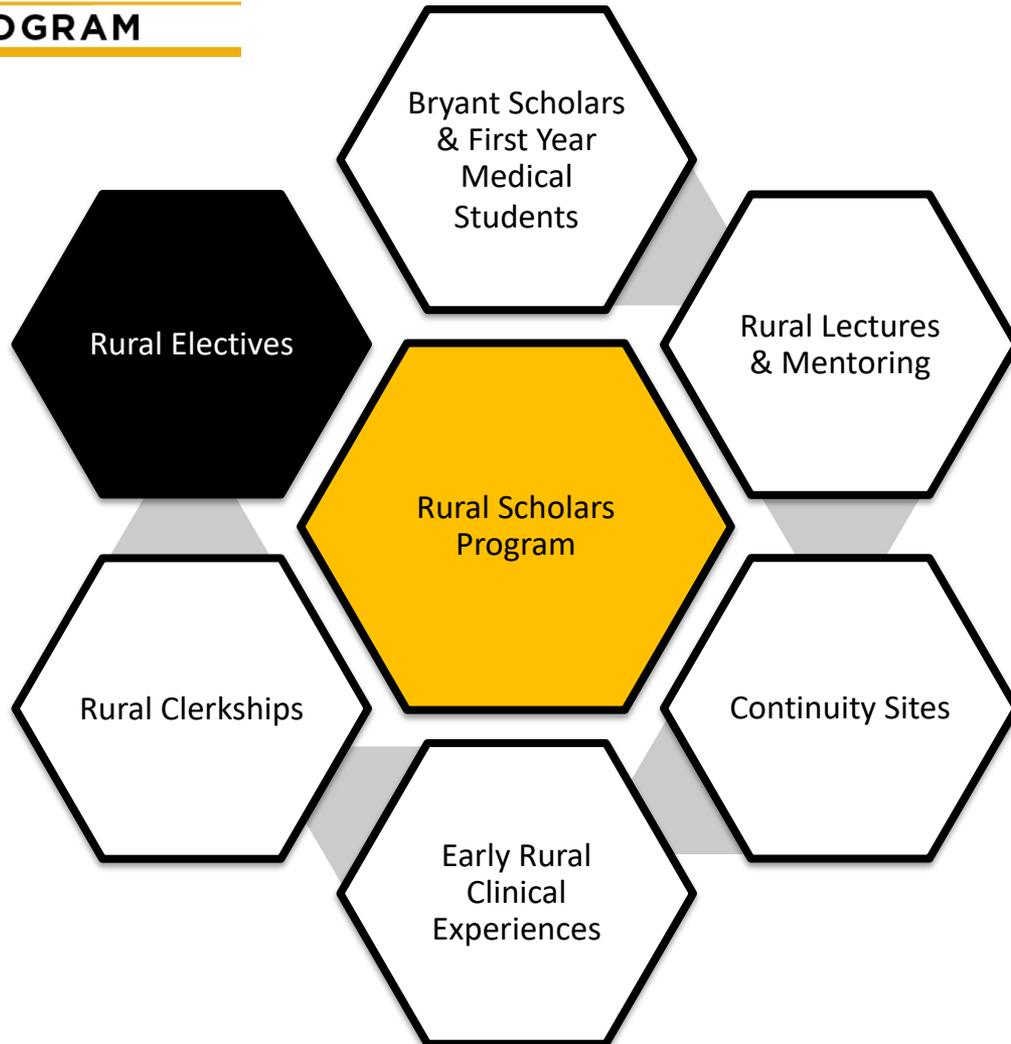
# Rural Track Clerkship Program

- Occurs during the 3rd year of medical school
- Students complete three clerkships or the Longitudinal Integrated Clerkship
- Clerkships:
  - Family Medicine (7 weeks)
  - Child Health (7 weeks)
  - Internal Medicine (7 weeks)
  - Obstetrics and Gynecology (7 weeks)
  - Surgery (7 weeks)
  - Psychiatry (6 weeks)
  - Neurology (5 weeks)
  - Longitudinal Integrated Clerkship (year-long)





RURAL SCHOLARS  
**PROGRAM**



# 4<sup>th</sup> Year Elective Program

- Occurs during the 4th year of medical school
- Students complete at least one 4-week elective
- Sample electives include:
  - Dermatology
  - Emergency Medicine
  - Cardiology
  - Immunology/Rheumatology
  - Radiology
  - Urology
  - Anesthesia
  - FQHC
  - Legislative Advocacy



# Evaluation Plans

- First class with programmatic changes graduates in May
- Currently collecting data to evaluate:
  - Rural Scholars Program
  - Mentor Requirement
  - MCAT Stipends

# Historical Program Outcomes

## Residency Choice of \*Pre-Admitted Rural Scholars Graduating Classes 1997-2022

Specialty	Cnt	Pct
Total Primary Care	68	43.3%
Family Medicine	45	28.7%
Internal Medicine	11	7.0%
Pediatrics	10	6.4%
Internal Medicine/Pediatrics	2	1.3%
Total Non-Primary Care	89	56.7%
<b>TOTAL</b>	<b>157</b>	<b>100.0%</b>

51.6% entered a residency program in Missouri  
36.3% entered a residency program at MU

*\*The Lester R. Bryant Scholars Program pre-admits students who have an interest in pursuing a career in rural medicine. These students must attend a rural high school and commit to the program's goals and requirements.*

## Current Practice Location of \*Pre-Admitted Rural Scholars Graduating Classes 1997-2022

Location	Cnt	Pct
Rural	66	57.4%
Missouri	56	48.7%
Out of State	10	8.7%
Urban	49	42.6%
Missouri	17	14.8%
Out of State	32	27.8%
<b>TOTAL</b>	<b>115</b>	<b>100.0%</b>

63.5% practicing in Missouri  
Of graduates not practicing, 0 were in the military,  
and 42 were in post-grad training  
Rural Isserman includes rural metro, rural non-metro, mixed rural  
metro, and mixed rural non-metro  
Urban Isserman includes urban and mixed urban

# Connecting to GME



School of Medicine

*University of Missouri Health*



Bothwell-University of Missouri  
Rural Family Medicine Residency

## Integrated Residency

- Who should apply?
  - Certain you want to train in Family Medicine
  - Certain you want to train in rural location
  - Able to envision living and working in Sedalia
- M4 longitudinal continuity clinic in Sedalia
- Part of our residency family!
- Scholarship covers M4 tuition

Questions?

