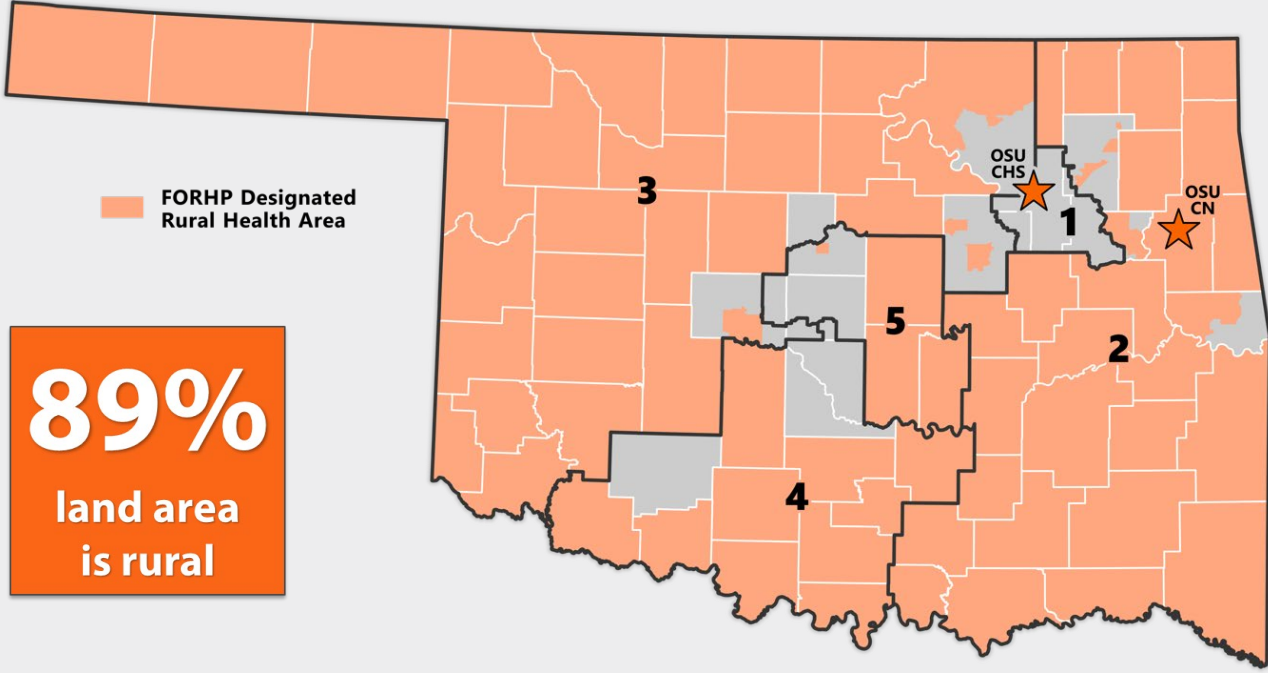




COLLEGE OF
OSTEOPATHIC MEDICINE
at the Cherokee Nation

Addressing the Primary Care Shortage in Rural, Tribal, and
Underserved Oklahoma Communities

Natasha N. Bray, DO, MSED, FACP, FACOI, FNAOME



89%

land area
is rural

42%

population
is rural

75 HPSA Counties

5 counties with 0 PCPs

7 counties with 1 PCP (MD or DO)

62.7 active PCPs per 100,000 population

Lack of Access to Care – Impact → Diagnosis Delay

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CHALLENGES OF RURAL & FRONTIER

- Rural Populations with lower access to healthcare, more fragmented care
- Rurality linked to delayed diagnosis
- Lack of continuity of care linked to higher rates of hospitalization and poor health outcomes

GRADUATE MEDICAL EDUCATION

“More than half (57.1%) of the individuals who completed residency training from 2011 through 2020 are practicing in the state where they did their residency training”

AAMC 2021 Report on Residents, [Executive Summary](#)

Predictors of Primary Care Physician Practice Location in Underserved Urban or Rural Areas in the United States: A Systematic Literature Review

Goodfellow, Amelia; Ulloa, Jesus G. MD, MBA; Dowling, Patrick T. MD, MPH; Talamantes, Efrain MD, MBA, MSHPM; Chheda, Somil; Bone, Curtis MD, MHS; Moreno, Gerardo MD, MSHS

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A Roadmap to Rural Residency Program Development

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Rural communities face a pressing need for primary care, behavioral health, and obstetrical care services, yet rural hospitals around the country are closing, and the gap between mortality rates in rural and urban areas is widening.^{1,2} While there is some debate about whether the nation faces a shortage of physicians, there is general consensus that the workforce is maldistributed.³ Estimates suggested we face a shortfall of 14 164 practitioners in primary care health professional shortage areas.⁴ While efforts to address rural workforce shortages need to be targeted along multiple points in a physician's career trajectory, exposure to rural and underserved settings during training has been shown to increase physicians' sense of preparedness for rural practice and retention in rural communities.^{5,6} Despite this evidence, graduate medical education (GME) in rural areas remains very limited, and the US Government Accountability Office estimates that only 1% of residents across all specialties train in rural areas.⁷⁻¹⁰ This is due in part

CHALLENGES OF RURAL & FRONTIER

Despite 20% of Americans living in rural and frontier locations

- Only 1% of residents train in rural areas
- Only 4% of family medicine and 5% of internal medicine training sites are in community-based health clinics
- Only 6% of family medicine, 1% of internal medicine, and 2% of general surgery sites are in rural settings

Physician Pathway Strategy



R³

Recruit **RURAL** students,
Educate in a completely **RURAL** environment from day
one, **RURAL**-based residencies.

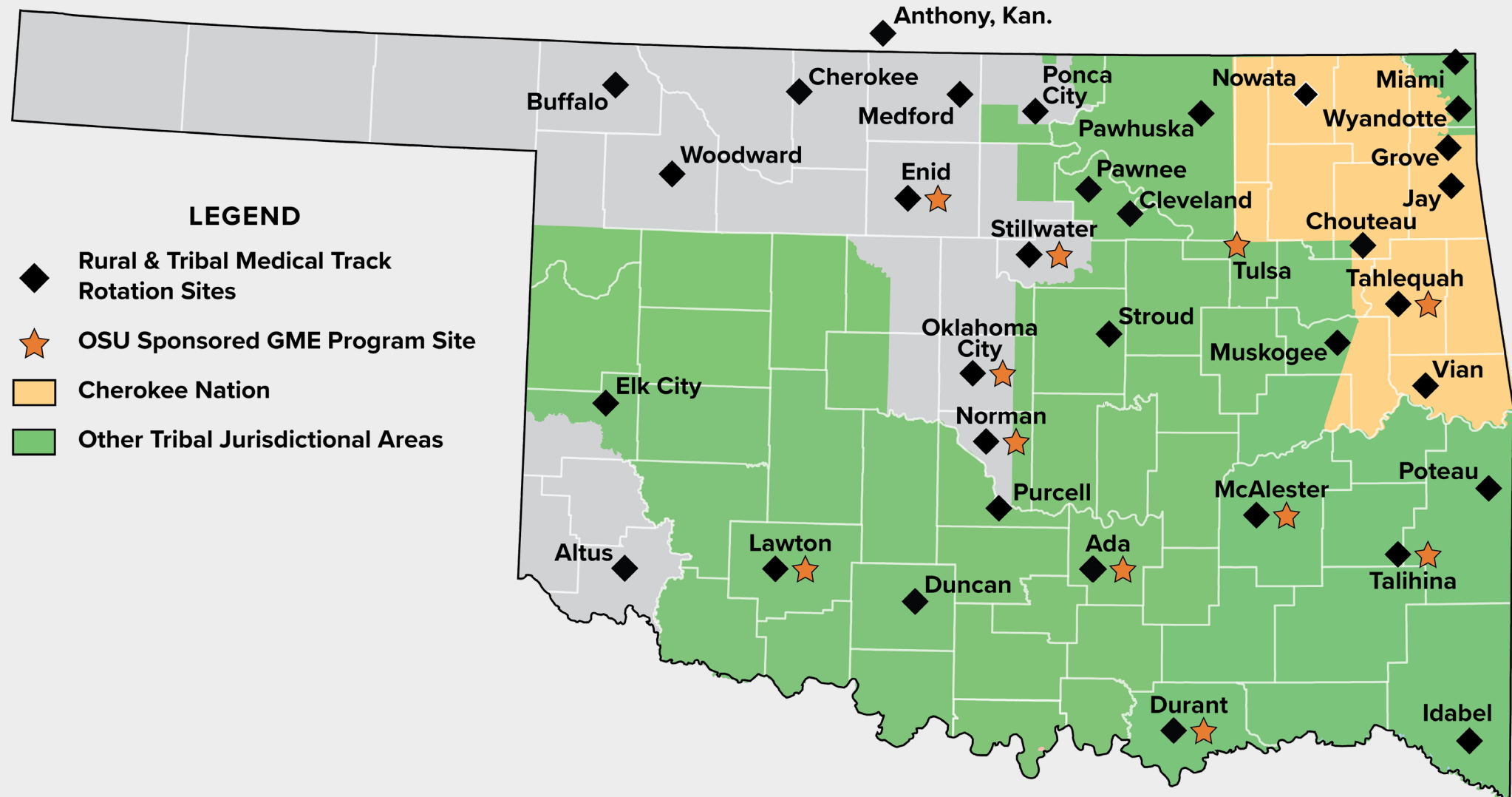
K-12

Undergraduate
Education

Medical School

Graduate
Medical
Education

Our Students Train Where They Will Practice



ABOUT THE TRACKS

RURAL MEDICAL TRACK (RMT) – Established 2011

Prepares medical students for a rural primary care residency and a successful practice in rural or underserved Oklahoma. The track offers unique learning opportunities for motivated students to fully develop their skills, knowledge and abilities to succeed in a challenging practice environment.

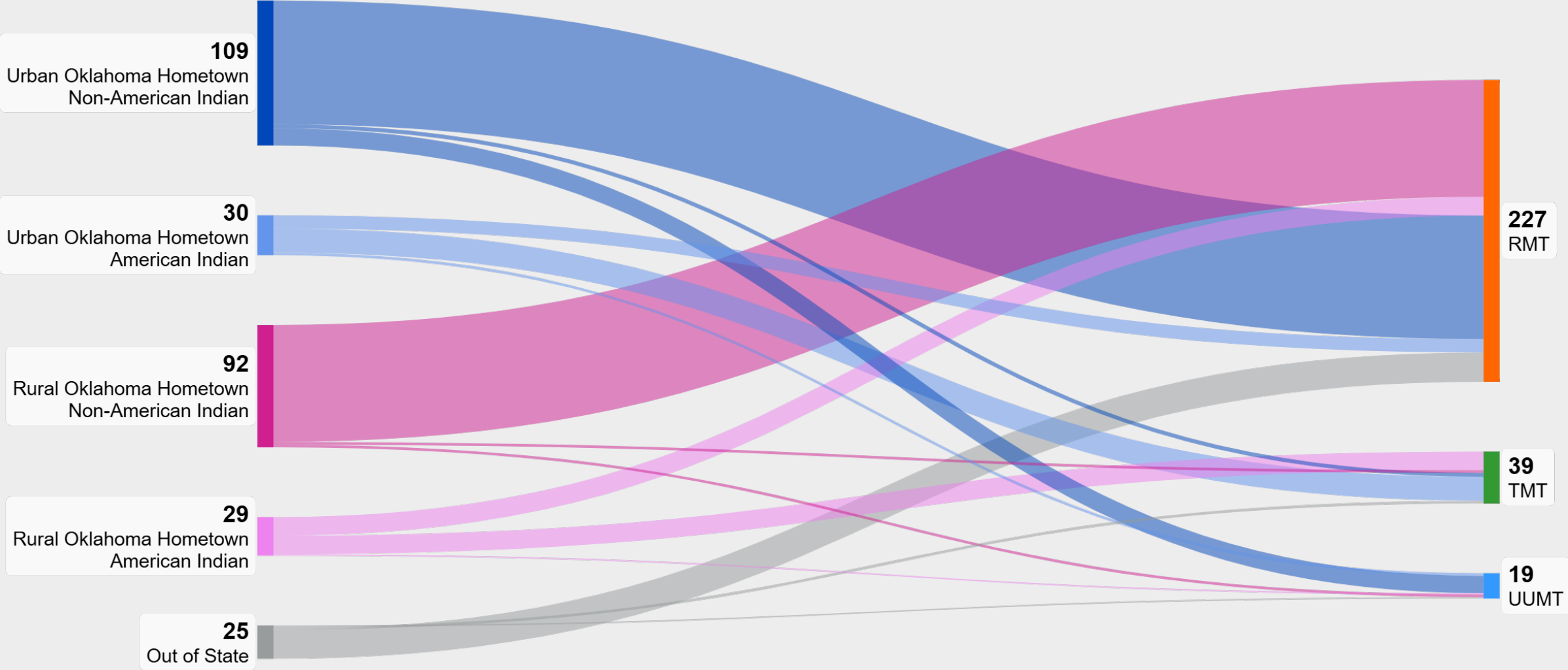
TRIBAL MEDICAL TRACK (RMT) – Established 2019

Prepares medical students for a primary care residency at tribal facilities or facilities focused on tribal healthcare. The track offers unique learning opportunities for motivated students to fully develop their clinical training and knowledge to succeed in a challenging practice environment while learning about the rich cultures of American Indians. A key attribute of the tribal medical track is tribal-based clinical education with cultural competencies.

URBAN UNDERSERVED MEDICAL TRACK (UUMT) – Established 2023

Prepares medical students for a primary care residency and successful practice in an urban underserved setting. The track offers unique learning opportunities for motivated students to fully develop their clinical training skills in dynamic, underserved communities and health systems.

INTENTIONAL RECRUITMENT



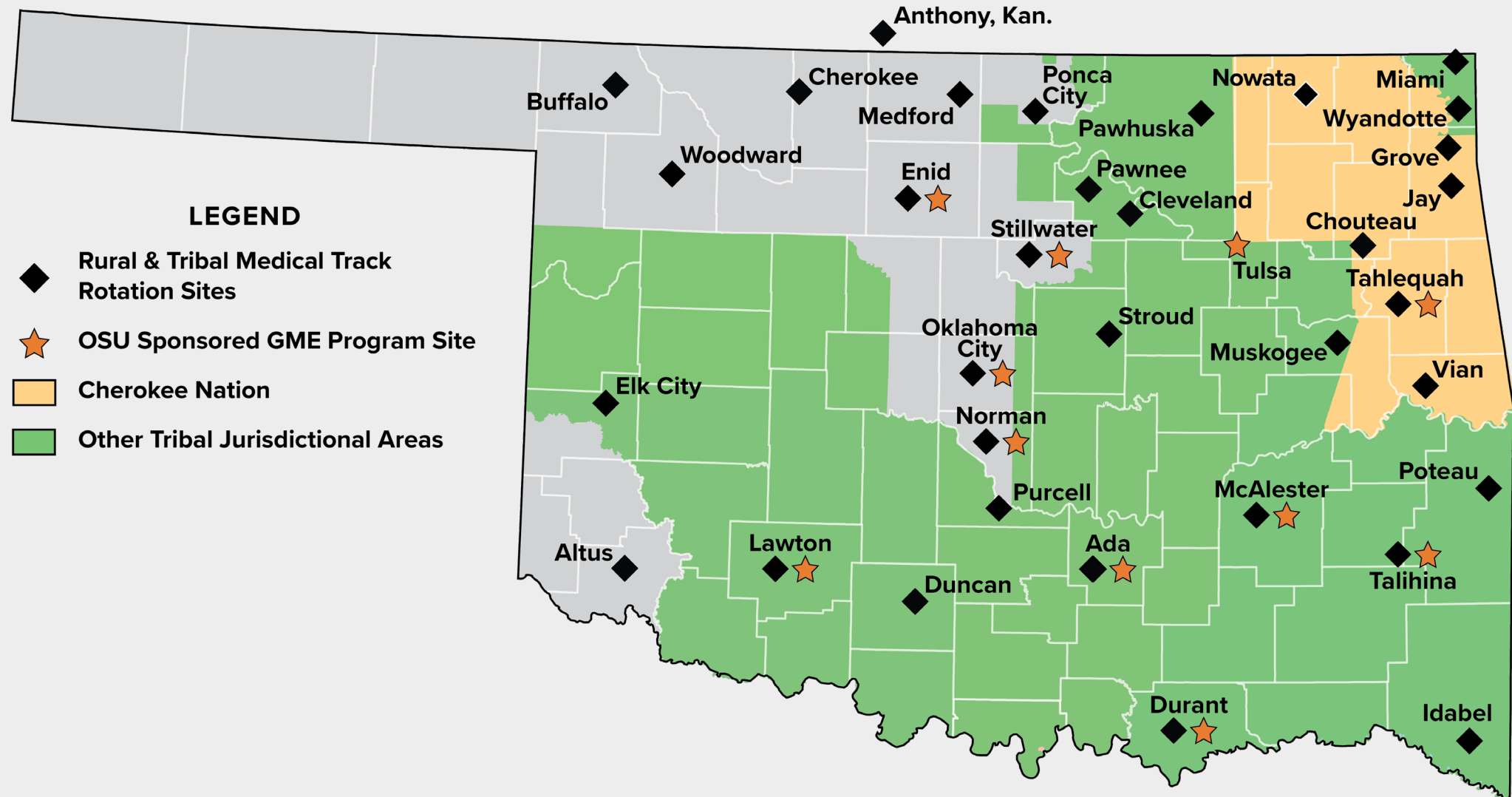
Outcomes – Class of 2024 & 2025

Rotation Number	RMT (n=47)	TMT (n=16)
Rural	8.2 (0-15)	7.3 (3-12)
Tribal	2.9 (0-10)	5.4 (2-11)
HPSA ≥ 14	7.9 (1-15)	7.3 (3-11)
Total R/T/H	9.4 (3-15)	8.5 (6-13)

	RMT	TMT	OSUCOM	National
MCAT Mean	501.5	499	502	
Level 1 - First Time Pass Rate	95.6%	100%	94.3%	90.60%
Level 2 CE – First Time Pass Rate	100%	100%	98.1%	92.51%
Level 2 CE Mean	540.2	539.5	545.74	526.88

	RMT (n=47)	TMT (n=17)	OSUCOM (n=322)
% Residency in Oklahoma	62% (29)	82% (14)	58% (186)
% Primary Care Residency * (IM, FM, Ped, IM/Ped, OB/GYN)	70% (33)	47% (8)	52% (167)
% Critical Need Residency ** (Primary Care + EM, Surg, Psych)	98% (46)	100% (17)	83% (266)

Our Students Train Where They Will Practice



Physician Practice Location Choices After Teaching Health Center Residency Training

Oklahoma's Rural Residency Programs:

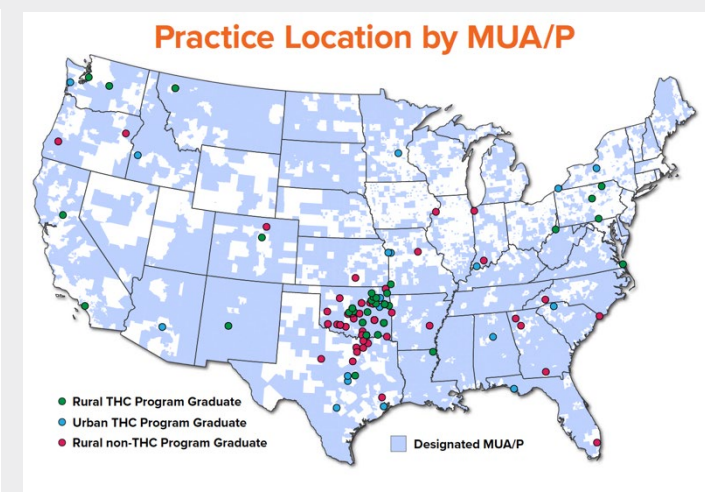
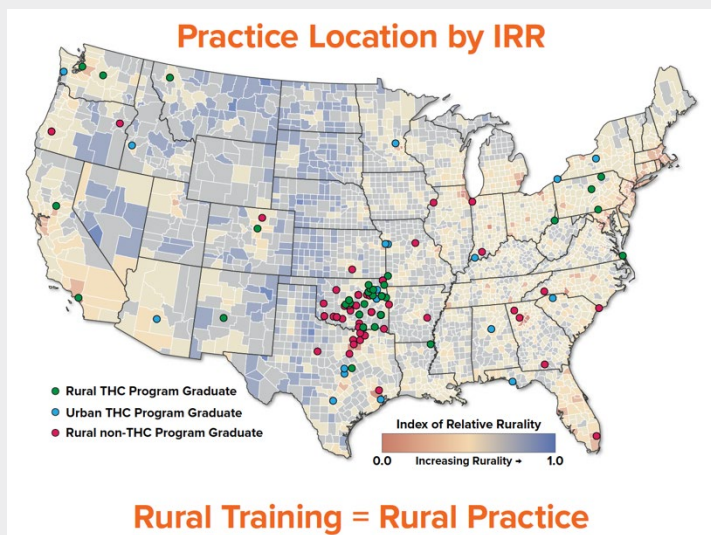
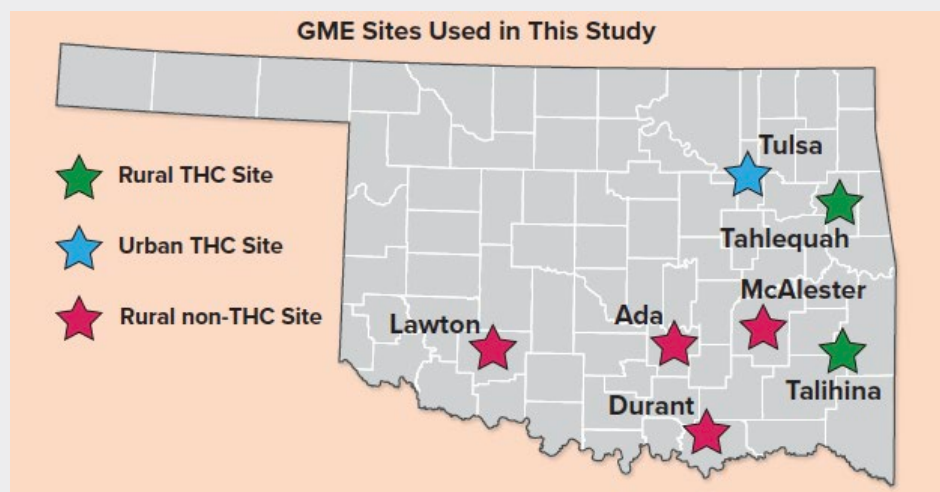
77% Retained in Oklahoma

(↑ 90% for OSUCOM Graduates)

Family Medicine	38	21.8	136	78.2	174	100.0
Internal Medicine	1	9.1	10	90.9	11	100.0
Emergency Medicine	3	8.6	32	91.4	35	100.0
Pediatrics	7	41.2	10	58.8	17	100.0
OBGYN	0	0.0	11	100.0	11	100.0
Total	49	19.8	199	80.2	248	100.0

$\chi^2 = 11.655, df = 4, p = .02$

	Non-MUA/P		MUA/P		Total	
	N	%	N	%	N	%
Family Medicine	38	21.8	136	78.2	174	100.0
Internal Medicine	1	9.1	10	90.9	11	100.0
Emergency Medicine	3	8.6	32	91.4	35	100.0
Pediatrics	7	41.2	10	58.8	17	100.0
OBGYN	0	0.0	11	100.0	11	100.0
Total	49	19.8	199	80.2	248	100.0



TRIBAL RESIDENCY PROGRAMS

(2012-2025)

	Combined Data (n=99)	Cherokee Nation (n=51)	Choctaw Nation (n=34)	Chickasaw Nation (n= 14)
Graduates in Practice in IHS/Tribal System	51 (52%)	23 (45%)	22 (65%)	6 (43%)
Graduates in Practice in Oklahoma	67 (68%)	35 (69%)	24 (71%)	8 (57%)
Graduates in Practice in Rural Communities	68 (69%)	36 (71%)	27 (79%)	5 (36%)
Graduates in Practice in Rural or Partially Rural Communities	74 (75%)	42 (83%)	27 (79%)	5 (36%)
Graduates in Communities with HPSA score <20	77 (78%)	42 (83%)	27 (79%)	8 (57%)
Graduates in Practice in MUA/P	67 (68%)	40 (78%)	26 (76%)	1 (7%)

Story of Success – Cherokee Nation Health Services



Dr. Dustin Beck

- Hometown: Wagoner (population 7,846)
- Undergraduate: Northeastern State University
- Medical School: Oklahoma State University College of Osteopathic Medicine (2011)
 - IHS Scholarship (4 years)
- Residency: OMECO/ NHS - Cherokee Nation Family Medicine (2014)
- Current Job: Program Director – Cherokee Nation Family Medicine (since 2022)

Largest tribally-operated health system in the US

About 1.6 million patient encounters annually

10 clinics throughout northeast Oklahoma

2 Hospitals

Pre-Residency program development

9 -12+ months

2020

Current (as of July)

4 - 6 weeks

2025



THANK YOU

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OSU Clinical Education: Christopher Thurman

OSU GME: Mo Som

CN: Dustin Beck