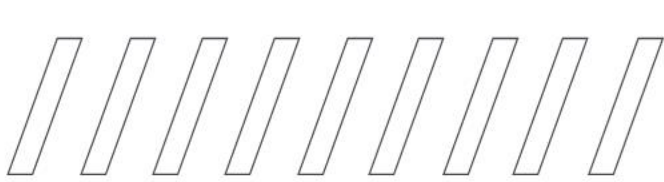




COLLEGE OF
OSTEOPATHIC MEDICINE
at the Cherokee Nation





COLLEGE OF
OSTEOPATHIC MEDICINE
at the Cherokee Nation

OSUCOM-CN

Changing Medical Education and
Physician Workforce Development through Partnerships

Natasha Bray, DO, MSEd

Dean – OSUCOM Cherokee Nation Campus

Assoc. Dean Accreditation - OSU Center for Health Sciences

Clinical Professor Rural Health

OSU College of Osteopathic Medicine at the Cherokee Nation

Nation's First Tribally Affiliated Medical School

Partnership with the
Cherokee Nation

Located in Tahlequah, OK

85,000 ft² Facility
W.W. Hastings campus

Full four years of medical school
curriculum

50 medical students per
entering class

Opened Fall 2020

A Brief History OSU COM

1972

Oklahoma College of Osteopathic Medicine and Surgery (OCOMS) created by the state legislature as a free-standing medical school in Tulsa.

1988

OCOMS merged into the OSU system in creating the **OSU College of Osteopathic Medicine (OSU COM)**.

1997

OSU Center for Health Sciences (CHS) established as an academic health center.

2020

OSU College of Osteopathic Medicine - Cherokee Nation Campus



The inaugural class of OCOMS in 1974.





“Rural and Underserved”

- OSU College of Osteopathic Medicine educates osteopathic primary care physicians with an emphasis on serving rural and underserved Oklahoma.

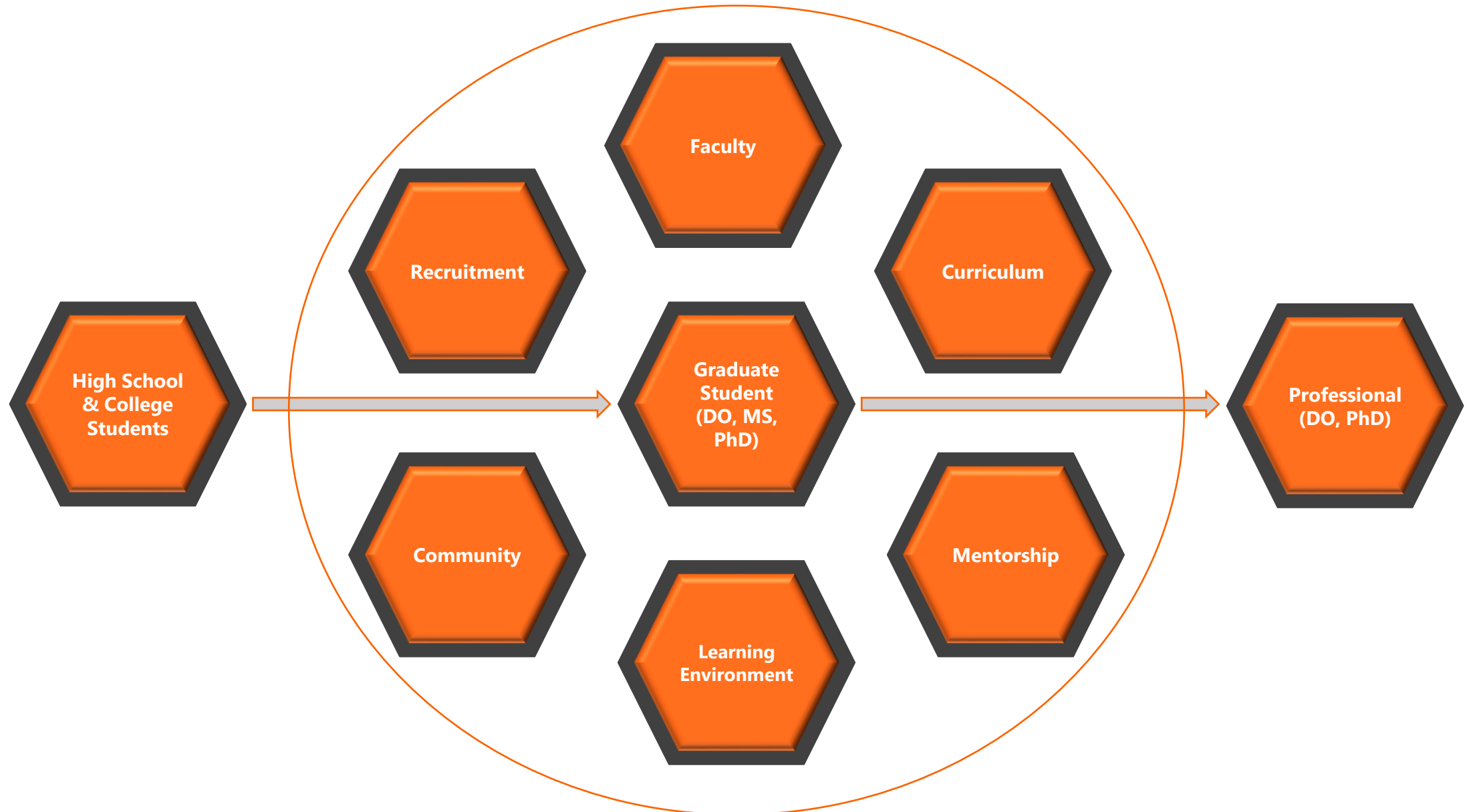
"As we mark the official opening of the first tribally-affiliated medical school in the United States, we know that we will one day look back on this day and what will matter most is whether our efforts have changed lives for the better. I believe that this partnership will advance quality health care for all by allowing us to teach a new generation of medical professionals to serve our communities for years to come."

Chuck Hoskin, Jr.

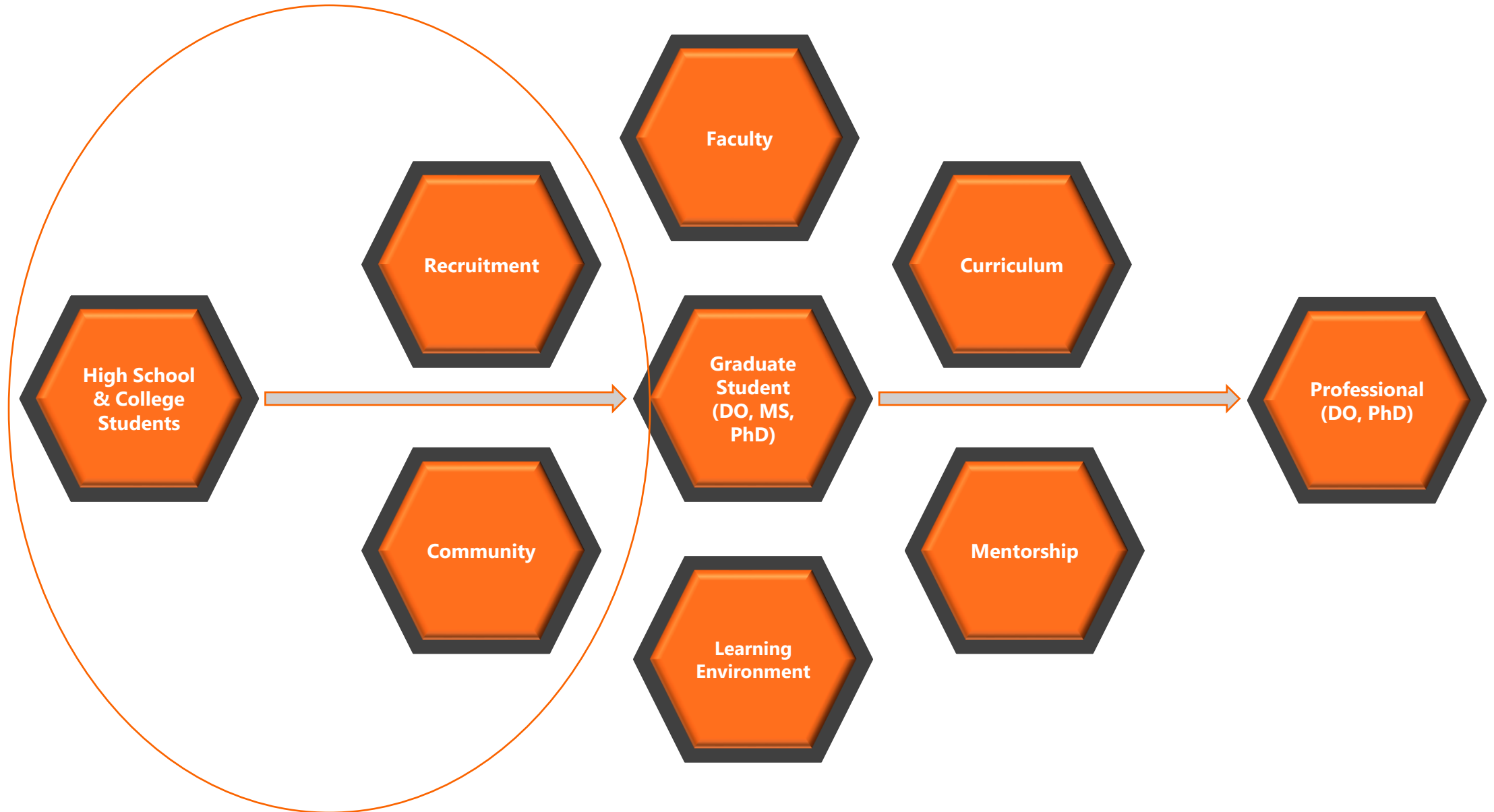
Principal Chief of the Cherokee Nation



Building a Learning Environment Based on Belonging



Building a Learning Environment Based on Belonging



CULMINATION OF PHYSICIAN PATHWAY STRATEGY



R³ At OSU-COMCN, we will recruit **RURAL** students, educate them in a completely **RURAL** environment from day one, and place them in **RURAL**-based residencies.

T³ At OSU-COMCN, we will recruit **Native American** students, educate them in a completely **on the Cherokee Nation Reservation** from day one, and place them in **Tribal Healthcare Center**-based residencies.

Pathway Programs

High School

Operation Orange

OK Stars

Dr. Pete's Immersion Camp

Blue Coat to White Coat

Pre-Health Roundup



College

Med-Xtavaganza

Pre-Admission Workshops

Virtual Information Sessions

A Day in the Life of an OSU Student

Native American High School

Native Operation Orange

Native OK Stars

Native Explorers

Southwest Oklahoma Tribal

Health Internship



Native American College

Native American Pre-Admission Workshop

Native Explorers STEMM

Summer Internship

Southwest Oklahoma Tribal Health Internship

OSU COM DEMOGRAPHIC DATA

	Class of 2027		Class of 2026		Class of 2025		Class of 2024	
	Tulsa Campus (n=114)	CN Campus (n=52)	Tulsa Campus (n=115)	CN Campus (n=51)	Tulsa Campus (n=122)	CN Campus (n=53)	Tulsa Campus (n=117)	CN Campus (n=54)
Native American	14.9% (17)	34.6% (18)	8.7% (10)	13.7% (7)	9.8% (12)	24.5% (13)	12% (14)	22.2% (12)
URM	29.8% (34)	40.4% (21)	20.0% (23)	23.5% (12)	24.6% (30)	31.1% (17)	24.8% (29)	31.5% (17)
Oklahoma Resident	82.5% (94)	80.8% (42)	82.6% (95)	84.3% (43)	84.4% (103)	90.6% (48)	87.2% (102)	90.7% (49)
Rural Oklahoma	52.6% (60)	61.5% (32)	44.3% (51)	62.7% (32)	32.1% (36)	41.5% (22)	29.1% (34)	35.2% (19)
Male:Female Ratio	56:58	30:22	58:57	28:23	61:61	23:30	49:68	27:27



HOMETOWNS REPRESENTED @ OSUCOM-CN



Oklahoma
Cherokee Nation

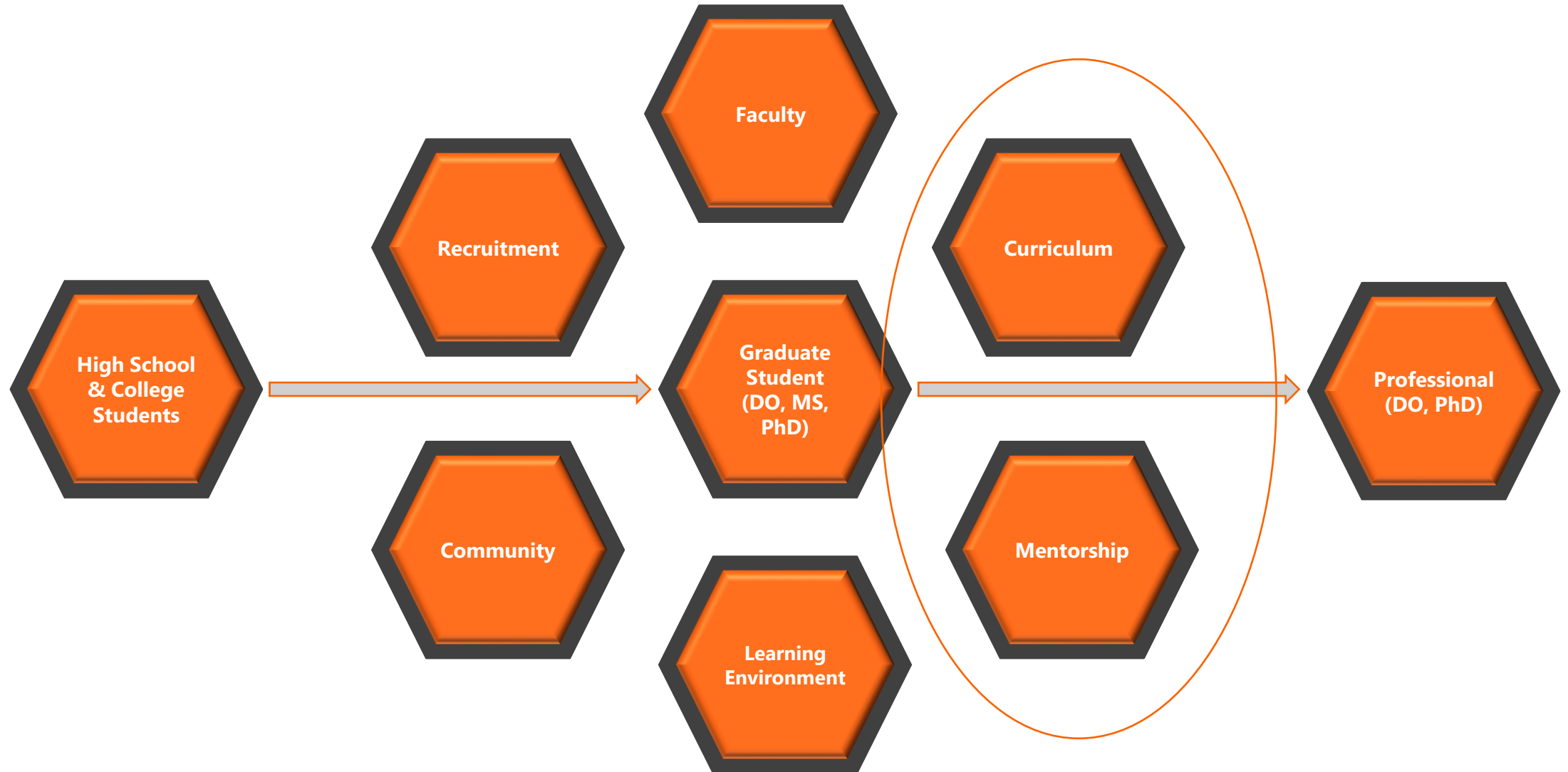
Class of 2024

- Ada
- Alva
- Bixby
- Broken Arrow
- Catoosa
- Claremore
- Del City
- Edmond
- Goltry
- Guymon
- Lawton
- Little Axe
- McLoud
- Moore
- Mustang
- Norman
- Nowata
- Oklahoma City
- Owasso
- Pittsburg
- Pryor
- Sand Springs
- Stillwater
- Stilwell
- Tahlequah
- Tulsa
- Wagoner
- Washington

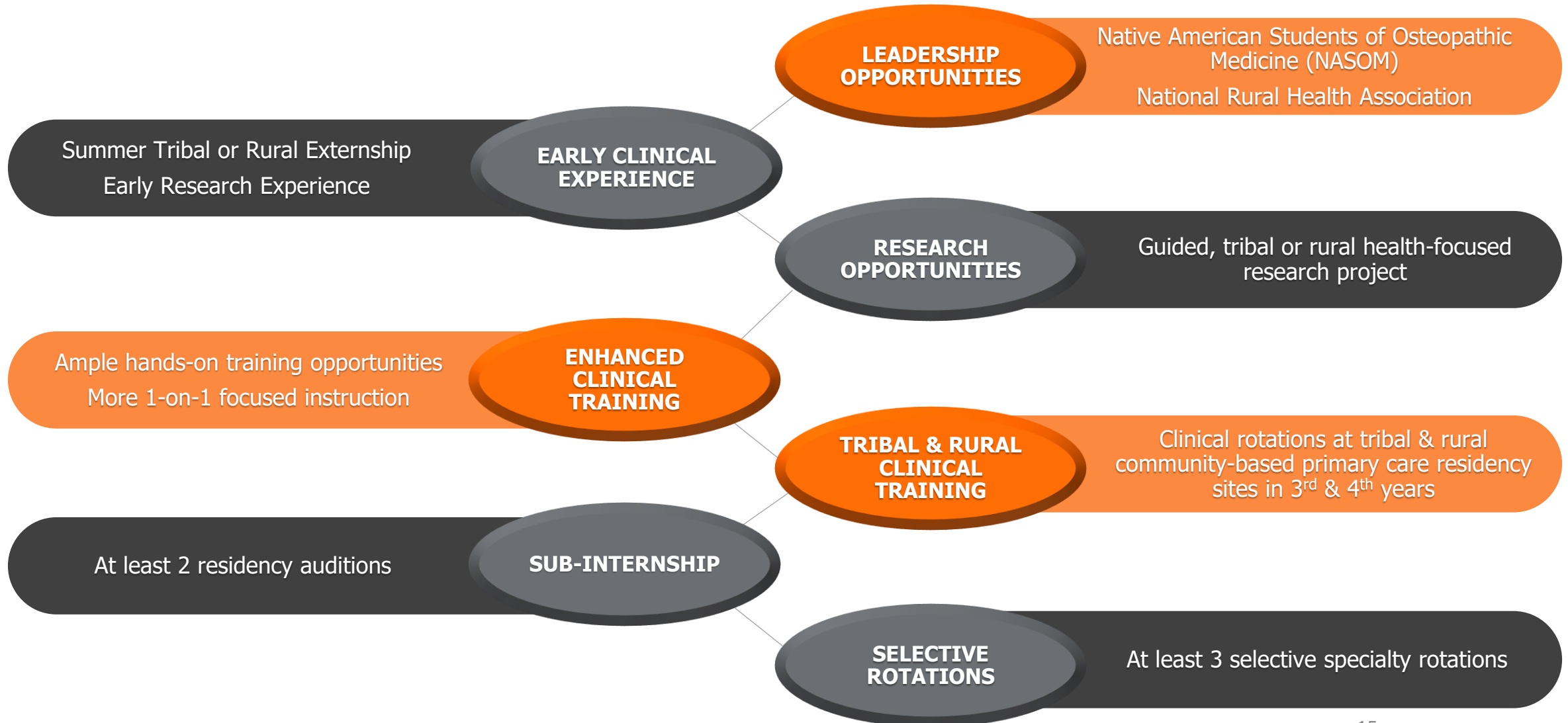
Class of 2027

- Broken Arrow
- Broken Bow
- Byng
- Chandler
- Claremore
- Cleora
- Edmond
- Fort Gibson
- Grove
- Kinta
- Lawton
- Mannford
- McAlester
- Miami
- Muskogee
- Norman
- Oklahoma City
- Panama
- Pauls Valley
- Pryor
- Seminole
- Shattuck
- Shawnee
- Tahlequah
- Tulsa
- Vian
- Westville
- Wetumka

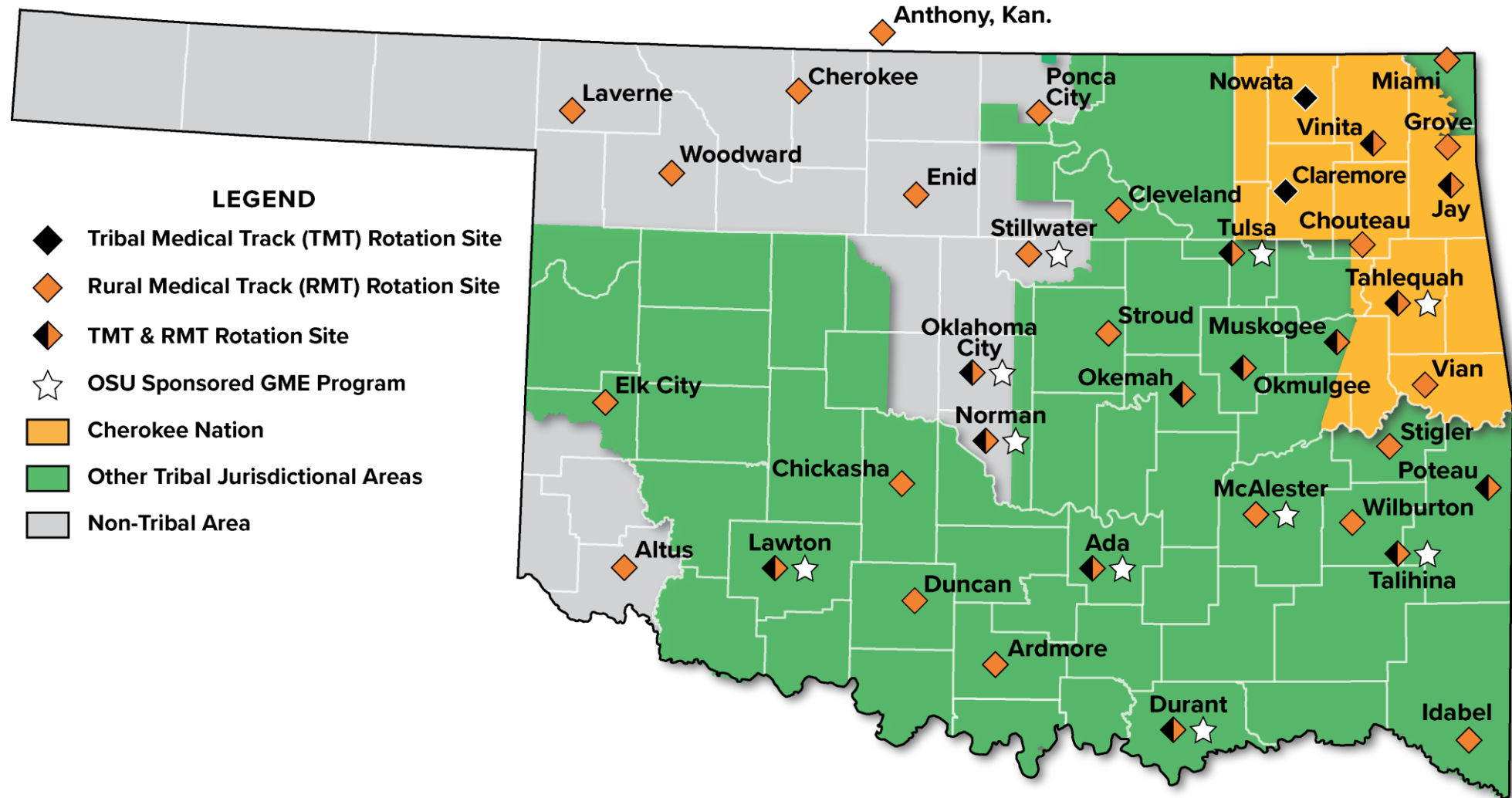
Building a Learning Environment Where You Belong



TRIBAL & RURAL MEDICAL TRACKS



Our Students Train Where They Will Practice



Building a Learning Environment Where You Belong



TRIBES REPRESENTED @ OSUCOM

- Caddo
 - Cherokee Nation
 - Chickasaw Nation
 - Choctaw Nation of Oklahoma
 - Citizen Potawatomi Nation
 - Delaware Nation
 - Mississippi Band of Choctaw Indians
 - Muscogee Creek Nation
 - Peoria Tribe of Indians of Oklahoma
 - Santa Clara Pueblo
 - Sault Ste. Marie Tribe of Chippewa Indians
 - Seminole Tribe of Oklahoma/ Hecete Band
 - Tlingit
-



Learning Environment



CELEBRATE NATIVE AMERICAN HERITAGE MONTH

HERITAGE ENRICHMENT ART
HeART Kit

**november's project:
corn bead necklaces**

**pick up a free kit in the medical library
november 7th
(while supplies last)**



The graphic features an illustration of an easel with a colorful abstract drawing, a cup of paintbrushes, and two small paint pots. At the bottom right, there is an illustration of a pair of scissors and a string of beads.



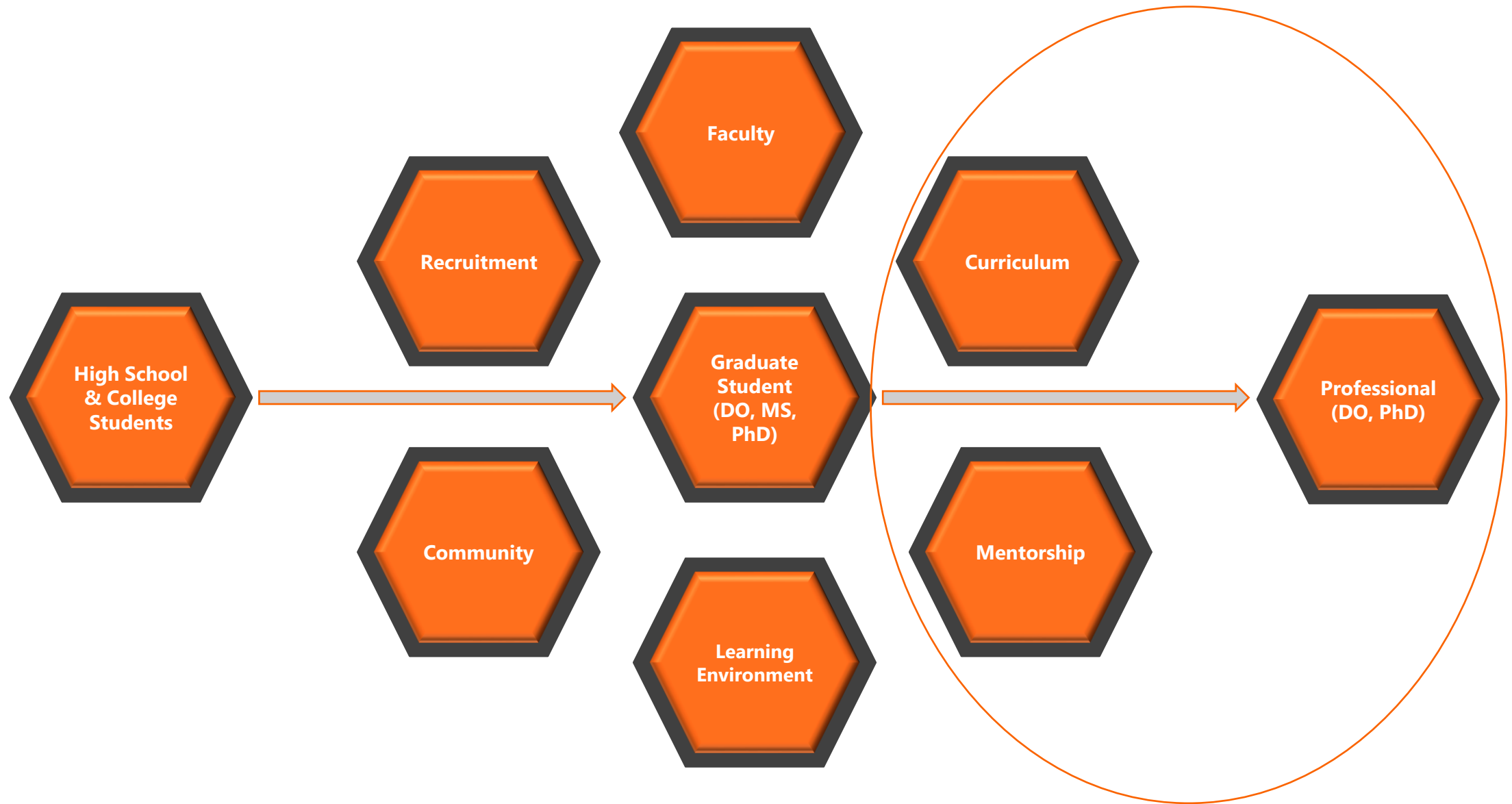


ROCK YOUR MOCS DAY

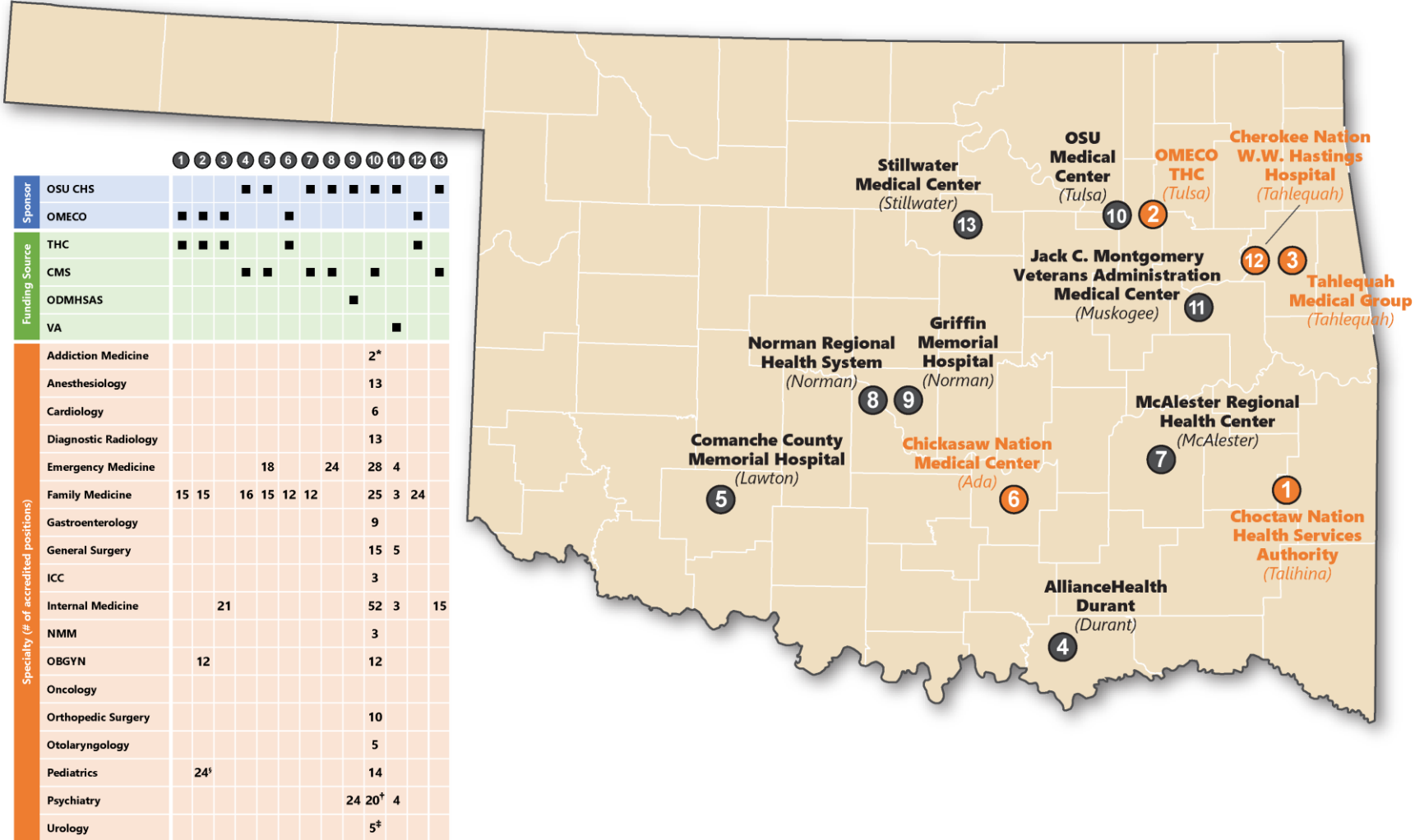




Building a Learning Environment Where You Belong



GME Expansion Through THC Funding



Notes: ICC = Interventional Cardiology; NMM = Neuromusculoskeletal Medicine;
*Funded by HRSA, 12&12, Inc., and ODMHSAS; †Funded by VA and ODMHSAS;
‡Funded by St. Francis Hospital; †Nine positions located in Tahlequah with the Cherokee Nation. Information valid at the time of publication. All information is subject to revision.

RURAL & TRIBAL RESIDENCY PROGRAMS

2023 SNAPSHOT

10 rural residency programs, **157** rural residency slots

Cherokee Nation (Tahlequah): 54 slots
(family, internal medicine & pediatrics)

Chickasaw Nation (Ada): 12 slots
(family medicine)

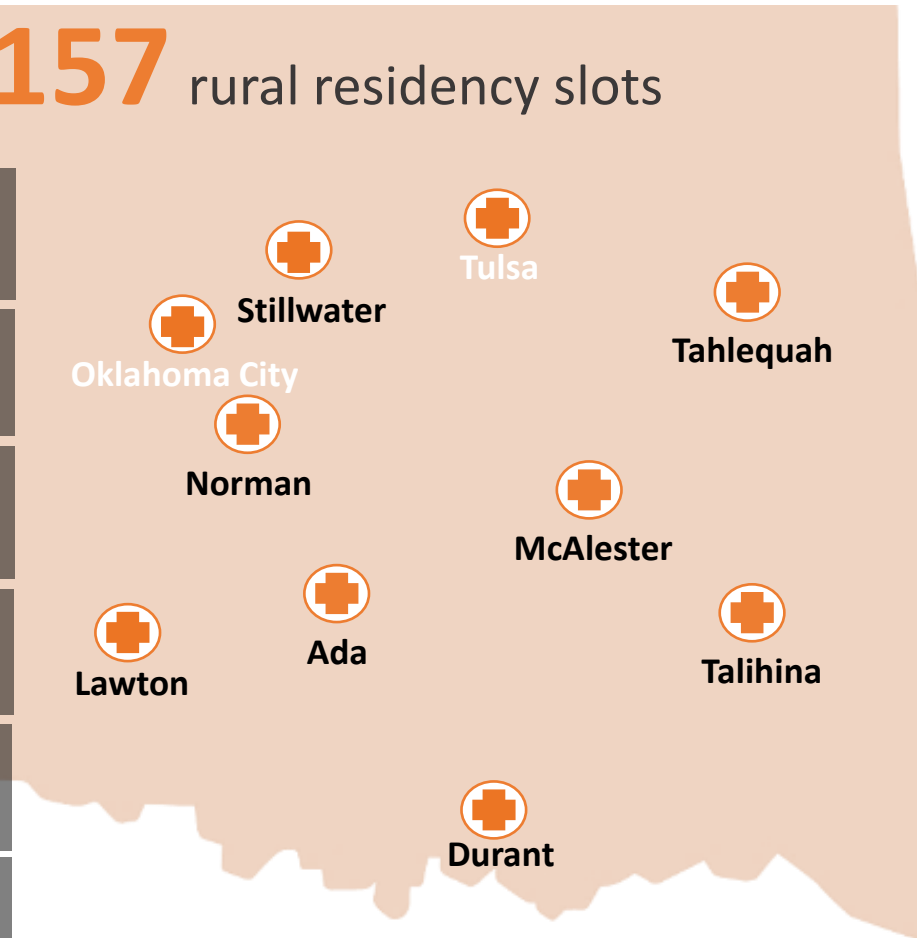
Choctaw Nation (Talihina): 12 slots
(family medicine)

Lawton: 28 slots
(family & emergency medicine)

McAlester: 12 slots
(family medicine)

Norman: 24 slots
(emergency medicine)

Stillwater: 15 slots
(Internal medicine)



TRIBAL RESIDENCY PROGRAMS

	Combined Data (n=49)	Cherokee Nation (n= 31)	Choctaw Nation (n= 15)	Chickasaw Nation (n= 4)
Graduates in Practice in IHS/Tribal System	25 (51%)	13 (42%)	11 (73%)	1 (25%)
Graduates in Practice in Oklahoma	38 (78%)	22 (71%)	13 (87%)	3 (75%)
Graduates in Practice in Rural Communities	33 (67%)	20 (65%)	12 (80%)	1 (25%)
Graduates in Practice in Rural or Partially Rural Communities	40 (82%)	27 (87%)	12 (80%)	1 (25%)
Graduates in communities with HPSA score <20	40 (82%)	25 (81%)	12 (80%)	3 (75%)
Graduates in Practice in MUA/P	39 (90%)	26 (84%)	12 (80%)	1 (25%)

Physician Practice Location Choices After Teaching Health Center (THC) Residency Training



RURAL
HEALTH



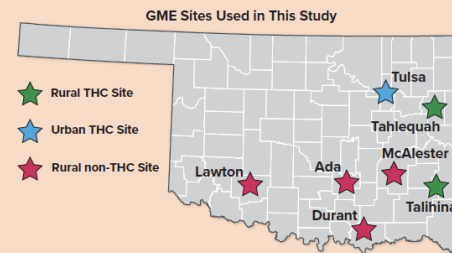
Denna Wheeler, Ph.D. ♦ Chad Landgraf, M.S., GISP ♦ Indu Bhattarai, M.S. ♦ Krista Schumacher, Ph.D.
OSU Center for Rural Health – Tulsa, Oklahoma

INTRODUCTION

The Teaching Health Center Graduate Medical Education (THCGME) program was designed to increase the number of primary care residents trained in community-based settings, particularly in rural and other underserved areas. The OSU Center for Health Sciences established five THC programs in 2012 and has since expanded to seven programs and increased capacity at four programs. In the current study we explored Oklahoma GME graduates by specialty, GME characteristics including rurality and type, and post-residency practice location.

METHODS

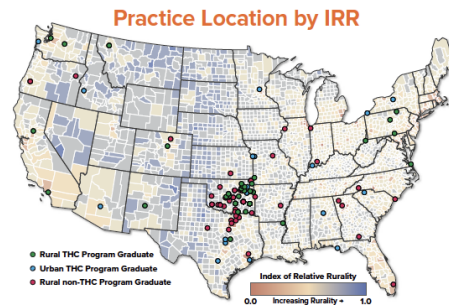
We examined data from graduates of three types (Urban THC, Rural THC, and Rural non-THC) of Oklahoma osteopathic GME programs between 2012 and 2023. We coded specialty and practice location for 248 program graduates and demographic information for 111 OSU College of Osteopathic Medicine (COM) graduates including race, age, and gender. Our main variables of interest were retention in Oklahoma and the rurality of practice location. We used two measures of rurality; the Index of Relative Rurality (IRR), a continuous measure ranging from 0 (urban) to 1 (rural), and the Federal Office of Rural Health Policy (FORHP) designation, a dichotomous measure. We conducted Chi-square tests of independence for pairs of categorical variables and one-way analysis of variance (ANOVA) for pairs of variables with a continuous outcome. We used the National Provider Identifier (NPI) to determine the current practice location of each physician. We used SPSS 28 for all analyses and ESRI's ArcGIS Pro with the ArcGIS World Geocoding Service to geocode the practice locations.



DISCLAIMER

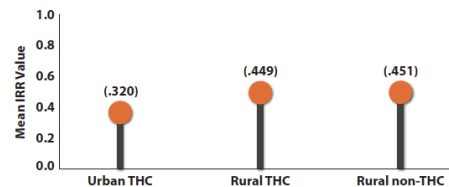
This presentation is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling \$19,479,063 with 10% financed with non-governmental sources. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS, or the U.S. Government.

RESULTS



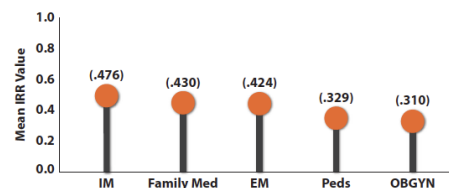
Rural Training = Rural Practice

A one-way ANOVA to examine differences in mean practice rurality by GME training location was significant ($F = 52.21$, $df = 2$, $p < .001$). Post-hoc tests indicated rural program graduates are practicing in places with significantly higher IRR scores than urban GME graduates.

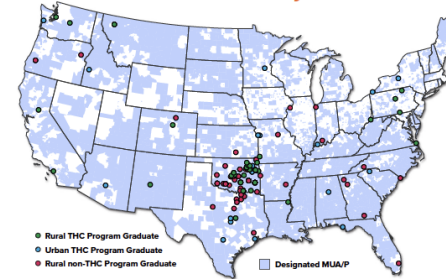


Pediatrics & OBGYN Cluster in Urban

A one-way ANOVA to examine differences in mean practice rurality by specialty was significant ($F = 12.99$, $df = 4$, $p < .001$). Post hoc tests indicated two clusters, with OBGYN and pediatric physicians trending urban and emergency medicine, family medicine, and internal medicine physician graduates trending rural.



Practice Location by MUA/P



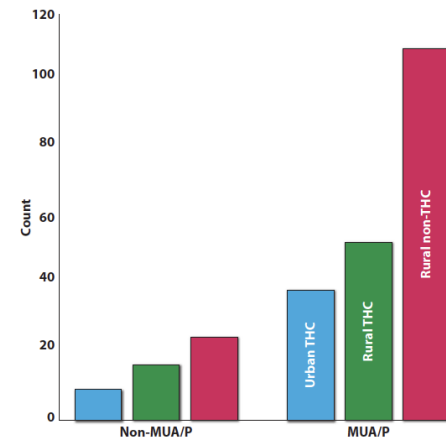
80% of Graduates Practice in a MUA/P

	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

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

No Difference by MUA/P

No significant differences between GME type by practice location in an MUA/P or not ($\chi^2 = 0.867$, $df = 2$, $p = .648$).



DISCUSSION & CONCLUSIONS

Published research indicates that THCGME programs are successful in increasing the number of primary care physicians practicing in rural and underserved areas and are cost-effective, with a lower cost per resident compared to traditional residency programs.

The results from the current study indicate that physicians who are training in Oklahoma's THCGME programs and other rural programs are successfully retained in Oklahoma for practice (77% overall) with higher rates for OSU COM graduates (90%) and rural graduates (79%). This study confirmed that students are more likely to stay in a geographic area similar to residency training, regardless of the rurality measure used. Nearly 90% of those who train in urban areas practice in urban areas while just under 75% of rural trainees continue to practice in rural areas.

Overall, our study aligns with THCGME efficacy research. This analysis demonstrated that graduates tend to practice in underserved areas, including rural areas, where physician shortages are most severe.

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Physician Practice Location Choices After Teaching Health Center Residency Training

Oklahoma's Rural Residency Programs:

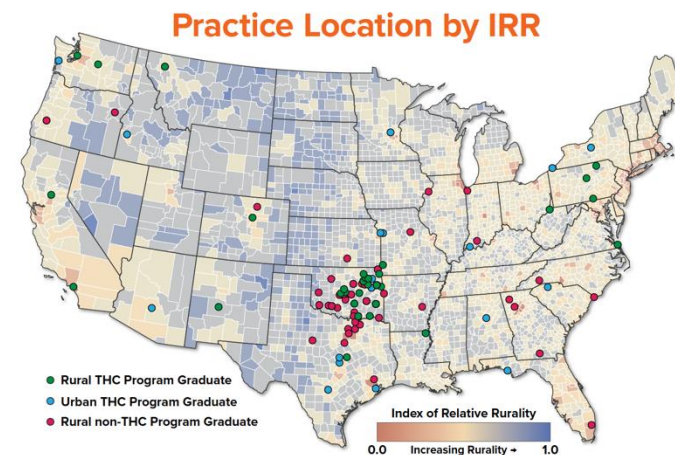
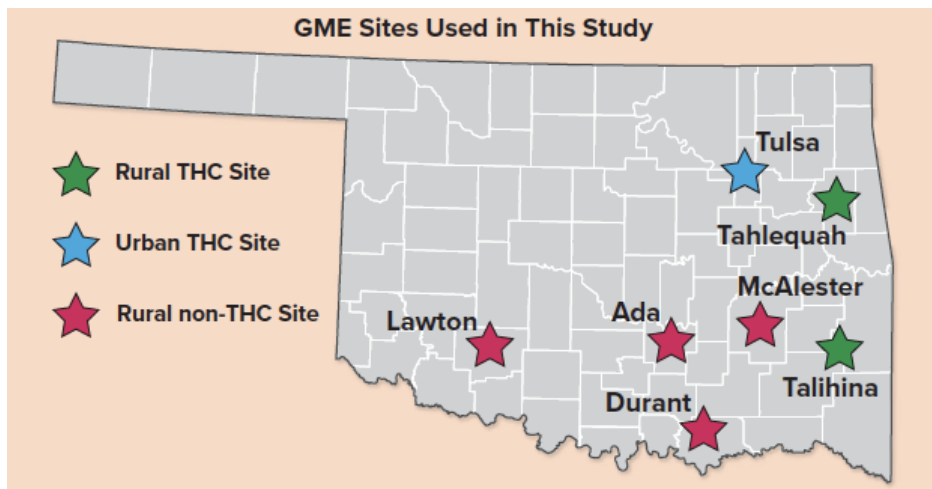
77% Retained in Oklahoma

(↑ 90% for OSUCOM Graduates)

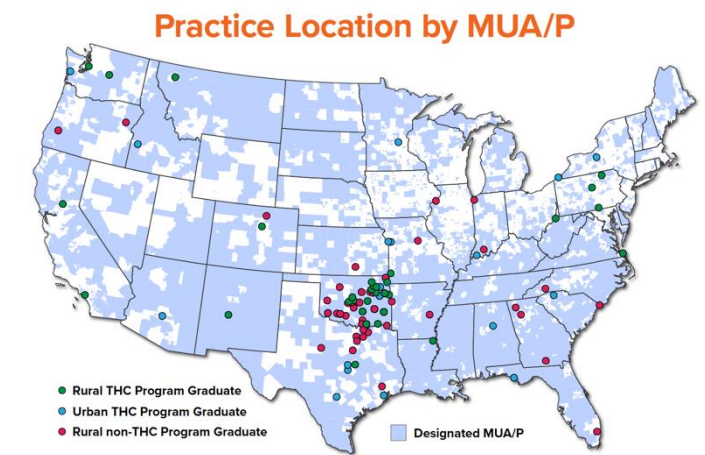
Family Medicine
Internal Medicine
Emergency Medicine
Pediatrics
OBGYN
Total

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

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



Rural Training = Rural Practice



Story of Success



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)



Dr. Ashton Clayborn

- Hometown: Porum (population 607)
- Undergraduate: Northeastern State University
- Medical School: Oklahoma State University College of Osteopathic Medicine (2014)
 - Rural Health Option and Rural Medical Track
- Residency: Choctaw Nation Family Medicine (2017)
- Current Job: Program Director – Choctaw Nation Family Medicine (since 2022)

THANK YOU

Natasha Bray, DO, MSEd, FACP, FACOI

Dean, OSUCOM Cherokee Nation Campus

Clinical Professor Rural Medicine

Associate Dean of Accreditation, OSU Center for Health Sciences

O | 918.280.1844

C | 918.817.2576

E | natasha.bray@okstate.edu

Twitter: @drbray

19500 E. Ross St.

Tahlequah, OK 74464


Medicine.okstate.edu



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