University Hospitals Authority Programmatic Review Project

JANUARY 2020

dlgm CONSULTING

UNIVERSITY HOSPITALS AUTHORITY (UHA) PROGRAMMATIC OVERVIEW

Oklahoma currently ranks near the bottom of almost every major health care statistic and indicator when compared to other states and national averages. These poor rankings are driven by a variety of complex factors such as geography, health education, and socioeconomic factors. Oklahoma's rural nature makes attracting physicians difficult in many parts of the State, and the issue is compounded by the economic realities of managing and maintaining a practice in those areas. In addition, Oklahoma has one of the lowest rates of insurance coverage in the country. The lack of coverage, combined with general socioeconomic challenges, results in a large overall need for indigent care services and specialty services throughout the State.

The UHA is at the forefront of organizations striving to improve Oklahoma's healthcare outcomes. The programs that are currently funded by UHA have been, over the past 20 years, some of the most successful in the State at addressing indigent care needs, supporting medical and health professions education, and promoting medical research. These three pillars of the UHA mission—providing indigent care, supporting medical education, and promoting medical research—work together to help provide invaluable opportunity and access to care for Oklahomans in need while also building the medical and education infrastructure that will allow the State to improve and succeed in the future.

Prior to the formation of UHA, the University Hospitals had been a part of the Oklahoma Department of Human Services (ODHS). The hospitals were financially challenged overall, and extremely under-capitalized. Much has changed since that time. The turnaround began in 1993 with the formation of UHA, and was accelerated in 1998 by the creation of the University Hospitals Trust (UHT), which gave UHA the contracting ability that was needed to manage such a complex turnaround of the hospitals. Twenty years later, the formation of OU Medicine, Inc. (OUMI) has provided a local management partner and control that will allow the hospitals to continue to grow and improve in a way that is tailored to the needs of Oklahomans.

Throughout all these changes, UHA has remained dedicated to its mission and to the efficient utilization of state funds. This document provides an overview of UHA and of the programs that receive state appropriations through UHA. The report also establishes high-level performance indicators that can be tracked by UHA for each program. UHA takes its oversight role in the state funding process very seriously and has worked closely with each of the programs to develop metrics that serve as appropriate indicators of programmatic performance and provide support for budgetary requests.

UHA PROGRAM HIGHLIGHTS

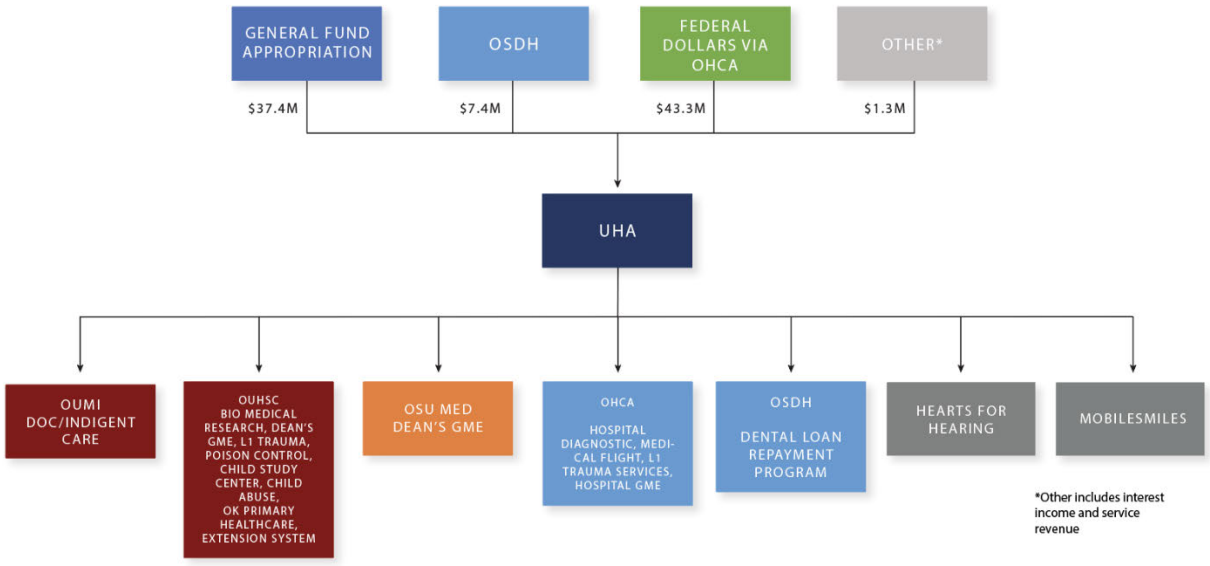
- 100% of UHA state appropriations are passed through to fund program costs. No state appropriations are used for administrative expenses which total less than 1% of the total budget.
- UHA-funded programs provide hundreds of millions of dollars of indigent care each year with almost every program providing services or service opportunities to all 77 counties in Oklahoma.
- OU Medical Center (OUMC) alone sees 13% of inpatient encounters and 15% of outpatient encounters processed by Medicaid each year. These Medicaid encounters equate to more than $240 million in OUMC costs each year.
- In addition to Medicaid services, OUMC provides another $125 million in cost of services for self-pay patients/charity care and Oklahoma Department of Corrections (DOC) services. Financial assistance programs offered by OUMC provide a 100% discount for most families earning less than 200% of the federal poverty limit (FPL).
- The UHA-funded programs generate tens of millions of dollars in estimated healthcare cost avoidance each year through services that prevent unnecessary usage of emergency rooms and, in the case of children's services, identify medical issues at a young age to enable treatment and cost savings over the entire life of the individual.
- The UHA-funded programs directly train hundreds of medical residents as well as nursing, pharmacy and psychiatry students each year. Moreover, employees of the UHA-funded programs provide educational talks and conferences for practicing medical professionals and non-medical professionals reaching thousands of individuals in Oklahoma and across the world.
- In addition to state appropriations and earned revenue, most of the UHA programs also generate funding through federal, state, and local grants or, in the case of OUMC, supplemental Medicaid matching funds. Grant sizes range from tens of thousands of dollars to matching programs that are in excess of $100 million. Without the continued support of appropriations dollars, matching funds would decrease significantly and, in many cases, smaller programs would face resource challenges that would make it difficult to apply for this external funding.
- Research and medical education that is made possible by grant funding spurs innovation and medical advances that not only benefit citizens from a health prospective, but also put Oklahoma on the map in terms of attracting and retaining talented physicians and researchers. OUHSC was awarded over $62 million in NIH grants in SFY 2019 with support from UHA.
- OUHSC is one of the most comprehensive academic health centers in the United States with seven medical and health professional colleges on one campus.

- Stephenson Cancer Center is number one in the nation in patient accrual in the National Cancer Institute's (NCI) National Clinical Trials Network (NCTN)[i] and was also ranked in the top fifty "Best Hospitals For Cancer" in America for 2019-2020 by US News & World Report[ii].
- Each of the UHA-funded programs has a tremendous economic impact on Oklahoma. These programs employ highly skilled professionals primarily in medical and data-driven fields. In addition, several of these programs provide Graduate Medical Education (GME). These training programs are among some of the most effective in the nation at retaining professionals after graduation.
- The overall employment impact of these programs and organizations is in the tens of thousands. Direct employment by OUMI and OUHSC respectively have a significant impact on the state. The combined employee count for these two entities was estimated by the Oklahoma Commerce Department at over 11,000 for 2019[iii], which makes the combined medical campus the third largest employer in the State.
- Economic impact is often difficult to accurately evaluate; however, the impact of these programs is undoubtably in the billions of dollars. As an example, the Association of American Medical Colleges (AAMC) estimated that in 2017, spending by medical schools and teaching hospitals had an impact of over $1.5 billion on the Oklahoma economy and employed more than 23,000 people[iv].

UHA STRUCTURE AND FUNDING

UHA changed the original University Hospitals system structure from a State employee-based model at DHS with over 4,000 employees to one that is operated through the use of a third-party organization under joint operating agreements (JOAs) with no State employees. The creation of UHT in 1998 enabled UHA to contract with the third party needed for the operation of the hospitals. UHT has now absorbed all administrative functions from UHA, including all administrative staff, while UHT's JOA partner, currently OUMI, employs and manages all hospital-related staff. This means that no state appropriations are needed for UHA administrative costs. All state appropriations provided to UHA are passed through to support key healthcare program initiatives and organizations that support indigent care, medical education, and medical research. The following diagram provides an overview of the funds flow for program support provided by UHA in SFY 2019. The financial outflow to programs is listed in *Table 1b*.

Table 1a. UHA Funding Sources and Programmatic Uses



The following table provides a listing of the programs funded by UHA using State appropriations, as well as the FY 2019 and FY 2020 appropriation amounts and report page numbers for programmatic reviews:

Table 1b. UHA Programs and State Appropriation Funding Amounts

Program Name	FY 2019 Appropriation	FY 2020 Appropriation	Page
DOC Inmate Care and Indigent Care	$7,511,826	$9,010,435	8
OU Dean's GME Program	8,889,865	40,606,078	30
OUHSC Bio Medical Research Program	400,000	5,400,000	40
Children's Auditory and Speech Pathology Services (Hearts for Hearing)	595,867	2,595,867	50
OU Physicians Level I Trauma Services	857,535	857,535	58
OUHSC Child Study Center	574,245	574,245	66
OUHSC Poison Control Center Services	0	510,000	76
Children's Hospital Child Abuse Program	371,161	371,161	84
Oklahoma Primary Healthcare Extension Program	148,465	148,465	94
Mobile Dental Unit Services (MobileSmiles)	74,232	74,232	104
OHCA Hospital Diagnostic Related Grouping	11,040,674	5,000,000	113
OHCA Medical Flight Transport Services	695,388	629,040	113
OHCA Level I Trauma Program Services	1,753,519	1,586,214	113
OHCA Hospital GME Program Services	2,350,697	2,126,415	113
Dental Loan Repayment Program	463,670	463,670	114
OSU Dean's GME Program	1,692,093	0	115
Total Appropriation Uses	**$37,419,237**	**$69,953,357**	

The UHA takes its obligation to efficiently and effectively use State funding seriously, and, to that end, spends both time and resources ensuring that programs funded through State appropriations are well organized, managed, and overseen. UHA requires annual reporting

of key performance measures for each program, and is working with each program to institute performance-based budgeting processes.

This document provides an overview of each program funded by UHA State appropriation during state fiscal years (SFY) 2019 and 2020. In addition, it provides key performance metrics for each program and a limited programmatic analysis.

FUNDING FOR INDIGENT AND DEPARTMENT OF CORRECTIONS CARE

UNIVERSITY HOSPITALS AUTHORITY PROGRAM UNDERSTANDING DOCUMENTATION

PROGRAM:

Indigent Care and Department of Corrections (DOC) Funding

PROGRAM MISSION

The OU Medicine mission is leading health care – in patient care, education and research. Through our combined efforts we strive to improve the lives of all people.

UHA provides funding to OU Medicine, Inc. (OUMI) for indigent care services using a combination of state appropriations and earned revenue. Appropriations are maximized by using the funds as a state match on the Centers for Medicare and Medicaid Services (CMS's) supplemental payments program for Level I Trauma Centers. The funding structure is often referred to as the Teaching Hospitals Reimbursement Program (THRP).

HIGH-LEVEL DESCRIPTION

Oklahoma State Statute O.S. ch. 63 § 3201 established the UHA in 1993 and charged it both with operating or leasing the operations of the State's teaching hospitals for the benefit of the colleges of the University of Oklahoma Health Sciences Center (OUHSC) and with providing care for the medically indigent. Since that time, UHA has developed a strong mission to be a catalyst for medical excellence, to support medical and health professions education and clinical research, and to assure the best care available to all Oklahoma citizens. The authorizing statute defines indigent care as "charity care, Medicaid contractual allowances, all debt arising from accounts for which there is no third-party coverage including services provided to the Department of Corrections and the Department of Mental Health and Substance Abuse Services as otherwise required by law." The statute also requires that OU Medical Center (OUMC) provide an amount of indigent care that is equal to or in excess of one hundred twenty percent (120%) of the annual UHA appropriation for indigent care. In addition to this statute, Oklahoma State Statute O.S. ch. 57 § 627.E requires OUMC to provide hospital services without cost to the Department of Corrections (DOC).

In 2019, OUMC was ranked the number one hospital in Oklahoma by *US News and World Report*[v]. OUMC serves as Oklahoma's only comprehensive academic hospital and houses the State's only Level I Trauma Center, as well as the only comprehensive, free-standing children's hospital. The campus is also home to the Oklahoma's only National Cancer

Institute (NCI)-designated cancer center. These unique services, combined with OUMC's location in the most densely populated part of the State, result in extremely high utilization by the indigent population.

35% of all OUMC inpatient discharges are Medicaid recipients, while an additional 12% are self-pay/charity cases (this includes DOC). The numbers are only slightly lower for outpatient encounters, which are 25% Medicaid and just over 12% self-pay/charity. These percentages indicate that OUMC has a higher percentage of indigent care than average hospitals; however, OUMC numbers are significantly impacted by the inclusion of the only children's hospital in Oklahoma. The Children's Hospital inpatient payor mix for state fiscal year (SFY) 2019 shows that more than 64% of all Children's Hospital encounters were billed to Medicaid. Overall, the complexity and cost of services provided at OUMC are also generally higher than at other hospitals around the State. Data provided by the Oklahoma Health Care Authority (OHCA) shows that OUMC provides services to over 13% of Medicaid patients seeking inpatient services and saw almost 15% of Medicaid patients who had outpatient procedures during SFY 2019. The complexity of the inpatient cases was such that OUMC received 17% of all Medicaid inpatient payments during SFY 2019. Finally, for high users of Medicaid services—defined as individuals with services totaling more than $100,000 during the fiscal year—OUMC saw 28% of the total Medicaid population.

The following table provides detail on the value of the indigent care provided by OUMC:

Table 1c. Indigent Care Provided by OUMC During FY 2019

Payor	Inpatient Encounters*	Inpatient Costs	Inpatient Collections	Inpatient Uncompensated Care
Medicaid	11,965	186,647,172	90,683,363	95,963,809
Self-pay/Charity	4,447	84,231,715	1,262,762	82,968,953
Total Inpatient Indigent	**16,412**	**270,878,887**	**91,946,125**	**178,932,762**
Payor	Outpatient Encounters	Outpatient Costs	Outpatient Collections	Outpatient Uncompensated Care
Medicaid	110,463	60,678,015	33,619,152	27,058,863
Self-pay/Charity	54,564	41,882,983	2,015,060	39,867,923
Total Outpatient Indigent	**165,027**	**102,560,998**	**35,634,212**	**66,926,786**
Combined Inpatient and Outpatient Totals	**181,439**	**373,439,885**	**127,580,337**	**245,859,548**

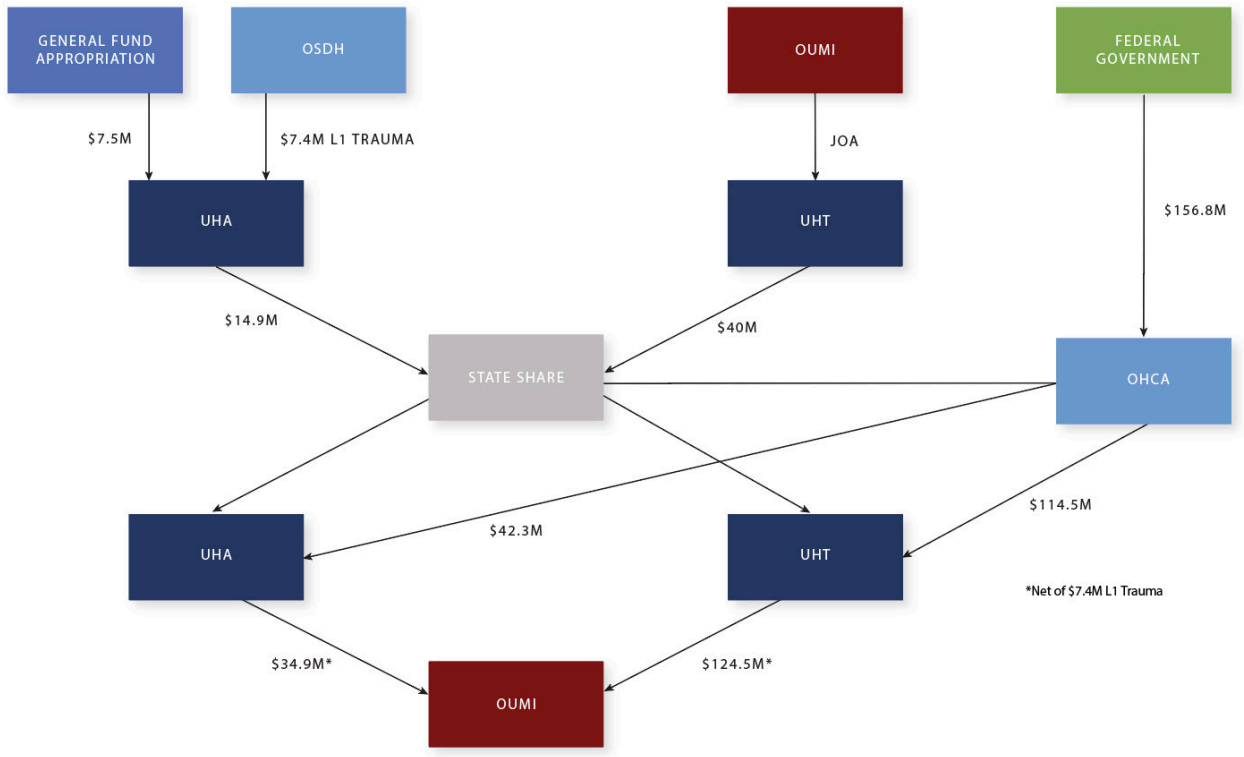
*Inpatient encounters listed exclude approximately 1,330 normal newborns. The average length of stay for an inpatient encounter was just over six days. OUMC's 2019 indigent inpatient encounters equated to 99,438 patient bed days.

As *Table 1c* shows, the cost to OUMC for providing indigent services was more than $373 million in SFY 2019. OUMC costs are submitted to and validated by CMS as part of regular reporting and CMS audits. With only 34% of those costs recouped through standard Medicaid and self-pay billing, the resulting uncompensated care on the basis of cost totaled more than $245 million in SFY 2019. Appropriations to UHA and matching federal supplemental Medicaid funds are therefore critical to the continued financial viability of OUMC's provision of indigent care. OUMC also is capable of producing the amount that, in the case of Medicaid and uninsured individuals, was charged or, in the case of DOC would have been charged for these services. However, *Table 1c* is focused on a comparison of actual cost to collections as a conservative representation of the uncompensated cost to OUMC.

The indigent care and DOC program appropriation, along with funds received through the Health Department's Trauma Care Assistance Revolving Fund, leverage what is known within the State as the THRP to subsidize indigent care at the OU Medical System. At the federal level, this funding is part of a Medicaid upper payment limit (UPL) program that is only available to Level 1 Trauma Centers. Like many Medicaid programs, this program requires that the State match a certain amount of federal funding. UHA and the University Hospitals Trust (UHT) provide the State share for the program from a combination of UHA appropriations, Level I trauma receipts from the Oklahoma State Department of Health (OSDH) and joint operating revenues earned by UHT. The funding is used by OUMC to support the indigent services it provides. These services are of great importance, particularly when considering the types of adult and pediatric specialty areas that are only provided by OUMC as the system receives the most complex medical cases from throughout the State. The following diagram illustrates the funds flow for this program.

Table 1d. THRP & Level 1 Trauma Supplemental Funds Flow

SFY 2019 TEACHING HOSPITAL REINBURSEMENT PROGRAM & LEVEL 1 TRAUMA FOR OUMI FUNDS FLOW



By statute, OUMC is only required to provide services at or in excess of 120% of the state appropriation amount. SFY 2019's appropriation totaled $7.5 million resulting in a $9 million threshold for OUMC. This number pales in comparison to the actual care provided each year as shown in *Table 1c.* The funding structure shown in *Table 1d* does provide some relief to OUMC for these indigent services, but will consistently result in more than $100 million in completely uncompensated services each year.

HISTORICAL BACKGROUND

The University of Oklahoma's medical education programs date back to the turn of the twentieth century. The College of Medicine was founded in 1900. Prior to the 1919 construction of the University Hospital, the college used various local hospitals for training. Over the years, the University medical complex has grown into the Oklahoma University Health Sciences Center and the OU Medical System. The University Hospitals have been operated by the University of Oklahoma, various state agencies, and private management organizations. Despite the numerous changes, the University Hospitals

have remained steadfast in the mission to provide health care to all people in need, medical education, and medical research.

The Medicaid UPL concept began in the early 1980s and has continued to evolve since that time. Most of Oklahoma's hospitals rely heavily on UPL supplemental payments through a program known as SHOPP. OUMC is unique in that OHCA created a separate UPL program for the campus because of the outsized share of indigent care it provides. That program is called the Supplemental Programs for Level 1 Trauma Centers and the funds flow diagram was previously presented in *Table 1d*.

NATIONAL STATISTICS

According to 2017 Census data collected by the Henry J. Kaiser Family Foundation, Oklahoma has the second highest rate of uninsured individuals across total population in the United States[vi]. The numbers remain poor when only considering children—Oklahoma ranks among the top five states in uninsured children[vii]. These numbers serve as useful indicators of the size of the indigent population in Oklahoma.

In addition to high rates of indigence, the Prison Policy Initiative released 2018 data showing that Oklahoma has the highest rate of incarceration in the United States[viii]. Oklahoma's incarceration rate is not only higher than all other states, but it is also significantly higher than other industrialized countries in the world. By contrast, Pew Charitable Trust reporting shows that Oklahoma is currently among the ten lowest states in terms of healthcare spending per prisoner[ix]. In spite of low spending per prisoner, Oklahoma health care costs for DOC remain high due to the high rate of incarceration. The services provided by OUMC, as required by statute, significantly offset the healthcare costs that would be incurred if DOC were required to pay for these services.

In addition to Oklahoma's high population of indigent and incarcerated individuals, the State also suffers from generally poor health. United Health Foundation's 2018 Annual Report ranks each state on overall health using the World Health Organization's definition of health. That report found that Oklahoma had the fourth worst health ranking in the United States[x]. Poor overall health will eventually drive additional need for healthcare services across the entire population, but will be particularly challenging for Oklahoma hospitals in the context of indigent care.

The national statistics above paint a picture of the landscape in which OUMC operates and why the indigent care provided by OUMC is so important. OUMC as an institution, makes a tremendous difference in this landscape. As previously mentioned, OUMC was ranked Oklahoma's number one hospital in U.S. News and World Report's 2019 rankings. In addition, the Stephenson Cancer Center is one of only 71 NCI designated cancer centers in

the country, and is a US News Top 50 Cancer Hospital. These rankings and designations are a testament to the quality of care that is provided to all OUMC patients and in particular it highlights the quality of services provided to indigent patients here in Oklahoma as those patients might lack the resources to seek treatment outside the State. The advances that are being made at OUMC and the specialty services offered by this organization have a lasting impact on the overall health of the State.

INDIGENT CARE AND DOC POPULATIONS SERVED

OUMC serves patients from all 77 counties in Oklahoma, as well as patients from other states. As previously mentioned, OUMC often handles the most complex medical cases in the region due to the number of unique specialty services that are provided and the Level 1 Trauma Center. Indigent care makes up a significant portion of the overall services rendered, with just under half of all inpatient services qualifying as indigent care.

The following table provides an overview of the combined inpatient and outpatient indigent care and DOC services provided by OUMC during SFY 2019:

Table 1e. Total Indigent Care Encounters at OUMC During SFY 2019

OU Indigent Care	Combined Encounters	Normal Newborns	Excluding Normal Newborns
Medicaid	123,712	1,284	122,428
Charity	46,180	43	46,137
Self-Pay	7,788	3	7,785
DOC	5,089	0*	5,089
Total Indigent	**182,769**	**1,284**	**181,439**

*Note: DOC newborns are typically classified as Medicaid. 29 Deliveries were performed at OUMC for DOC inmates in SFY 2019.

Table 1c shows the cost components of these services and a breakdown between inpatient and outpatient services. The average inpatient stay at OUMC is just over six days. The total inpatient days of care provided to indigent populations during SFY 2019 was approximately 99,438.

The age demographics of the respective populations vary significantly between Medicaid, self-pay/charity, and DOC. The age differences, in turn, drive variation between the types of services that are used by each group. The following tables provide graphical breakdowns of the indigent categories by age:

Table 1f. Breakdown of Inpatient Indigent Categories by Age

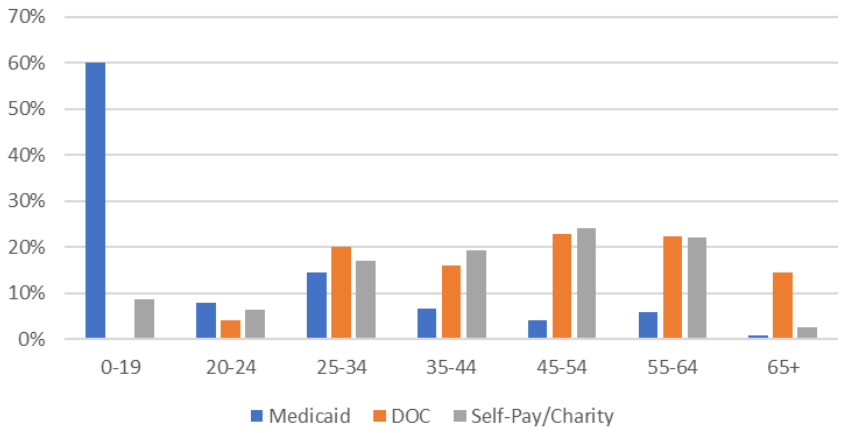
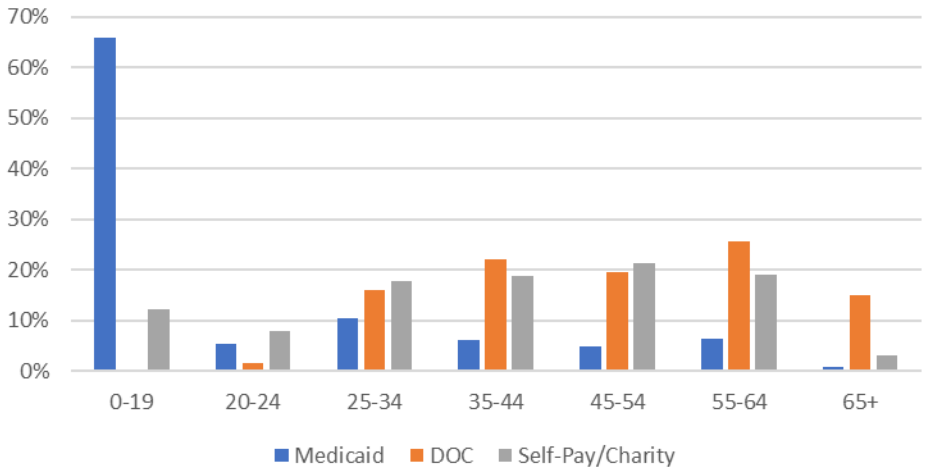


Table 1g. Breakdown of Outpatient Indigent Categories by Age



The following tables illustrate the differences in service utilization by indigent patient category and service line.

Table 1h. Top 3 Inpatient Service Lines by Utilization

Rank	Medicaid	Self-Pay/Charity	DOC
1	OB	Medicine	General Surgery
2	Medicine	General Surgery	Medicine
3	Neonatology	Neurosciences	Cardiovascular

Table 1i. Top 3 Outpatient Service Lines by Utilization

Rank	Medicaid	Self-Pay/Charity	DOC
1	Emergency Medical	Emergency Medical	Clinics Surgery Adults
2	Reference Lab	Clinics Surgery Adults	Clinics Medicine Adults
3	Ambulatory Radiology	Reference Lab	Clinics OB GYN

The indigent care services provided by OUMC go above and beyond what is statutorily required and demonstrate OUMC's commitment to its mission of improving the lives of all people.

PROGRAM FUNDING AND COST BENEFITS

During fiscal 2019, the funding sources for indigent care passed through UHA and UHT to OUMC were as follows:

Table 1j. Fiscal 2019 Funding Sources

Funding Source (Appropriations, Revolving, Federal, Grants)	Description of Funding Source	Amount Received in Fiscal Year 2019 ($ per year in millions)
State Appropriations	UHA Passthrough	$7.5
OSDH LI Trauma PMT	OSDH Payment	$7.4
UHT Revolving Funds	JOA revenues	$40
THRP	THRP	$156.8

The funding sources presented in this table do not include service revenue that is collected from Medicaid and self-pay individuals. Those collections are presented in *Table 1c*.

The funding for indigent care costs is what allows OUMC to be sustainable in their provision of indigent care services. Without these services, particularly for Level 1 Trauma and specialty services, many in Oklahoma would not have access to the current level of life saving care. In addition to overall population health benefits, there are additional benefits to the State from this program that can be directly tracked. The services that are provided to DOC at no cost for example, cost OUMC a total of $13.5 million per year across inpatient and outpatient services. If DOC had procured those services at other medical centers and paid for services at the average managed care rate at OUMC those services would have cost the State $25.4 million. Another example of cost savings to the State can be found in the use of care management to avoid emergency room (ER) visits in children. OUMC undertook a program beginning in late 2017 to reduce children's ER visits by expanding clinic options and times, promoting phone communications to determine the correct course of action, and using more active follow-up and communications with clinic patients. OUMC found that

over the course of a year, children's ER visits were reduced by more than 1,200. The reductions result in a tremendous cost savings to Medicaid as ER visits are significantly more costly than normal clinic visits.

OUMI ORGANIZATIONAL STRUCTURE

As of June 30, 2019, the OUMI system had a headcount of 4,748, with an FTE count of 4,642.

The 2018 change in joint operators from HCA Healthcare (HCA) to OUMI has brought back local management and thus local decision making to OUMC as well as additional local reinvestment. The transition from HCA services and systems has taken place in a methodical fashion with certain services transitioning earlier than others. As of the 2019 fiscal year end, certain services were still in the transition process. To date, approximately 500 FTEs that would have previously been located in other states as part of the HCA structure have been added at OUMC as a result of the transition. In addition to changes in functional operations, such as payroll and accounting, the transition to local management has also required a reassessment of the OUMC strategic plan, as well as a review of high-level policies and procedures.

For the purposes of this programmatic overview, key performance indicators focus on the following areas:

- CMS requirements
- Financial indicators
- Operational indicators
- Medical quality
- Risk management
- IT management and security
- Indigent care specific metrics

OUMI SPECIALTY PROGRAMS

As previously discussed, OUMC offers many services that are not available at other hospitals in Oklahoma. The following listing is not all encompassing but is intended to provide examples of how unique OUMC's offerings are:

General Adult Services

- State's only gastroenterologist who performs endoscopic ultrasonography and minimally invasive fine-needle aspiration procedures in and around the digestive tract.
- Oklahoma City's only certified ICU for Traumatic Brain Injury.

- State's only comprehensive program for epilepsy - Oklahoma's only level four epilepsy center, including an epilepsy monitoring unit.
- State's only minimally invasive gynecologic surgeon.
- State's only fellowship trained functional neurosurgeon.
- State's only fellowship trained specialist in MS (neuro immunologic diseases).

Oncology

- State's only cancer program ranked in US News and World Report's top 50.
- State's only phase I clinical trials program.
- Most comprehensive clinical trials program in the state.
- State's only fellowship trained thoracic surgical oncologists and only specialists in the state to offer minimally invasive lung cancer surgery.
- State's only program doing laparoscopic whipple procedures for pancreatic cancer.
- State's only sub-specialized neuro-oncologists.
- One of two proton therapy centers in the State.
- State's only CAR-T therapy program.
- State's only adult bone marrow transplant and cellular therapy program.
- One of only two of the State's orthopedic oncologists.

Pediatric Services

- State's only level IV NICU – highest level of neonatal care.
- State's only Level 1 pediatric trauma center.
- The only hospital in the state to provide dedicated, advanced-level pediatric imaging services for performing 3-D Angiography, 3-D Echo, Cardiac MRI, and Fetal Echo.
- Only hospital in the State to provide dedicated pediatric invasive services for performing advanced-level diagnostic, interventional and/or therapeutic cardiovascular and cardiac-electrophysiology procedures.
- State's only accredited by the IAC to provide dedicated multi-subspecialty pediatric echo services for performing transthoracic and transesophageal echocardiography.
- State's only dedicated neonatal ground and air transportation for Children's Hospital.
- State's only pediatric stem cell transplantation team.
- State's only pediatric transplant program.
- State's only pediatric dialysis unit.
- OUMC is the only pediatric UNOS-certified for kidney and liver transplant in the state, representing the highest standards for care.

OUMC QUALITY OF CARE

In addition to providing Oklahomans with access to a variety of specialty services, it is important to note that the quality of the services is key to the overall success of the organization and the health of the patients served. OUMC's commitment to quality is driven by clinician's and management's desire to promote a culture of ethics and accountability. The evidence of this commitment can be seen both in internal control processes and in the success of external reviews.

The Chief Ethics and Compliance Officer has a direct line of reporting to the CEO and the Board of Directors. This structure indicates the seriousness that is placed on the corporate culture of ethics and compliance and ensures that senior leadership and the Board play an active role in setting that culture.

All OUMC staff are required to receive and review the code of conduct on an annual basis. An electronic reporting system allows management to track the completion of this process. Any staff member that does not complete the required review process within the specified timeline will face possible termination. In addition to the code of conduct and ethics, the office of the Chief Ethics and Compliance Officer is also responsible for working with national accreditation groups such as The Joint Commission.

The Joint Commission is an independent not-for-profit organization that accredits and certifies over 22,000 health care organizations and programs in the United States. Their mission is "to continuously improve health care for the public, in collaboration with other stakeholders, by evaluating health care organizations and inspiring them to excel in providing safe and effective care of the highest quality and value." Accreditation and certification offered by The Joint Commission is voluntary; however, this accreditation is a nationally recognized indication of the quality of care that is provided by an institution and is recognized by CMS as having standards and a survey process that meet or exceed Medicare's requirements. The Joint Commission accreditation process is one that involves rigorous reporting and site visits every 39 months. OUMC as a hospital, is accredited through The Joint Commission and also has advanced certification as an Advanced Comprehensive Stroke Center.

To participate in and receive federal payments from Medicare or Medicaid programs, a healthcare organization must meet the government requirements for participation, including a certification of compliance with the health and safety requirements called Conditions of Participation (CoPs). The accreditation and certification provided by The Joint Commission fulfills OUMC's CoP requirements.

OUMC's most recent re-accreditation process took place in late 2018 and early 2019, resulting in full accreditation status on January 12, 2019. The results of the OUMC review were highly positive, and, the highest in OUMC's history. There were no findings above the "moderate" category, meaning no findings of high impact against patient safety, nor did any of the findings reflect an immediate threat to life. This lack of high severity findings is exceptional among healthcare systems of this size and serves as a testament to the efforts OUMC has put into continual awareness and improvement of quality measures and patient safety.

In addition to OUMC's Joint Commission 2019 triennial accreditation, many departments also pursue certifications and/or accreditations that evidence that department or service line's high quality standards. Examples include:

- The Children's Hospital, Sleep Lab – American Academy of Sleep Medicine (AASM), Sleep Center Accredited
- Outpatient Cardiology Clinic – American College of Radiology (ACR), Accredited
- Cardiovascular Diagnostic Center and the Vascular Lab – Intersocietal Accreditation Commission (IAC), Certified
- All OUM Laboratories – American Society for Histocompatibility & Immunogenetics (ASHI), Accredited
- Blood & Bone Marrow Transplant Program – Foundation for the Accreditation of Cellular Therapy (FACT), Accredited
- All OUM Laboratories – The College of American Pathologists (CAP), Accredited
- Transfusion – American Academy of Blood Banks (AABB), Accredited
- Oncology Services – American College of Surgeons (ACS), Commission on Cancer Teaching Hospital Cancer Program Certified
- Trauma Services – American College of Surgeons (ACS), Level 1 Trauma Center Certified

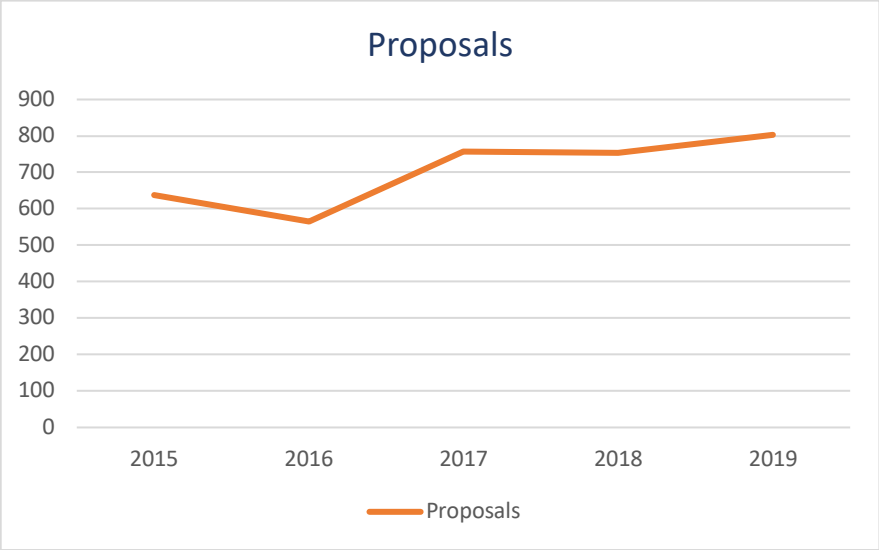
These department and service line accreditations and certifications indicate that beyond just providing the largest variety of medical specialty options in the State, OUMC provides these specialties with high quality standards that are measured and certified by independent national organizations.

MEDICAL RESEARCH AND CLINICAL TRIALS

Not only does OUMC provide access to quality care and unique specialty services to patients regardless of economic circumstance, it also provides Oklahomans with access to emerging medical procedures, new medical devices, and drug trials as part of the OUHSC medical research and clinical trials programs. Medical research and clinical trials supported by both OUMC and OUHSC bring world-class medical research professionals to the State and

exciting clinical trial opportunities to Oklahomans in need. Research projects are managed and overseen by the Office of Research Administration. OUHSC works collaboratively with OUMC to ensure that exam space, medical devices, and testing are available for researchers and patients participating in clinical trials. During SFY 2019, OUHSC-sponsored grant awards totaled over $147 million, with actual spending of over $115 million during that time period. OUHSC awards have shown impressive increases in recent years, and are heavily driven by National Institute of Health (NIH) funding. National Cancer Institute (NCI), National Institute on Aging (NIA), and the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) have all seen greater than 200% growth in funding between SFY 2012 and SFY 2019. The growth in funding from these organizations demonstrates the success of the OUHSC research strategic plan to grow resources and capabilities in these three core medical areas, and to focus and invest in centers of excellence. The following charts shows growth in grant applications managed by the Office of Research Administration over the last five years:

Table 1k. Number of Grant Proposals Submitted Between 2015 and 2019



OUHSC's $61 million in NIH funding during SFY 2019 was more than all other institutions in Oklahoma combined, and OUHSC recently received the largest institutional grant ever awarded by the NCI. The Stephenson Cancer Center is the single largest driver of both research and clinical trials in the OU Medical System. During SFY 2019 the Stephenson Cancer Center had 96 clinical trials and seven industry research projects underway. The Stephenson Cancer Center is also the number one program in the country for patient accrual in the NCI's National Clinical Trials Network (NCTN) and was ranked in the top 50 "Best Hospitals for Cancer" in America for 2019-2020 by US News & World Report, putting it in the top 1% of all cancer center programs in the nation.

In addition to the Stephenson Cancer Center projects, OUHSC research projects span a wide variety of topics and medical areas. It is estimated that every thirty cents of medical research spending by OUHSC currently generates a dollar in federal funding. In March 2013, the Economic and Social Impacts Report prepared by Battelle Technology Partnership Practice estimated and every dollar received in NIH (federal) funding had an economic impact of $2.24. If this number were extrapolated across the $61 million in NIH funding received by OUHSC in fiscal 2019, the total economic impact to the State would be estimated at over $137 million.

The Office of Research Administration oversees the grant process from start to finish. Primary Investigators (PIs) must receive approval from the Office of Research Administration prior to submitting grant applications. This gives the administration the ability to ensure that proposed research projects can be facilitated by the OU Medical System and the OUHSC. The Office of Research Administration also provides advisory services and technical support throughout the grant application, receipt, and reporting process. The resources controlled by the Office of Research Administration allow the office to provide certain financial support in the event that matching funds or general institutional resource support is needed by researchers. The office also makes recommendations to the Presbyterian Health Foundation (PHF) regarding projects in need of funding.

As previously stated, the impact of the OUHSC medical research on the Oklahoma health care landscape and the Oklahoma economy cannot be understated. Past investments--such as utilization of Tobacco Settlement Endowment Funds to support the Stephenson Cancer Center--have not only provided Oklahomans with access to specialized health care options, but have also spurred tens of millions of dollars in external research funding and hundreds of millions of dollars of economic impact for the State.

OUMI's PROGRAM CHALLENGES

OUMC currently operates at full capacity from a bed occupancy standpoint. OUMC's desire to expand capacity had a role in precipitating the most recent change in joint operating partners. Limited resources in both space and staffing mean that wait times for services can often be longer than would be preferred by management and staff. In response to the space issues, a new patient tower is currently under construction. This new tower will add 144 beds and 32 new operating rooms to OUMC's current capacity.

In addition to space and staffing resources, OUMI is still in many ways developing and maturing the needed organizational and technology infrastructure to properly manage and grow OUMC at a local level. Under the previous management agreement, many of the management and back office functions such as IT, data storage, and data security would have been handled at a corporate level outside of Oklahoma. OUMI is transitioning many

of these services back to Oklahoma; however, this is an area that will need to be further built out over the coming years. OUMI is currently working to build out a full IT road map that includes security, back-up, and data mining capabilities. System wide connectivity through a new electronic health records (EHR) system, as well additional data and analytics capabilities, will require multi-year investments in the near future and will significantly improve access and value for patients as well as expand clinical trials. The EHR system is a critical component in the overall IT transition as it impacts almost all areas of hospital operations. The following examples demonstrate the diverse areas that could be improved with the proper implementation of an advanced EHR system:

- Optimizing Staffing
- Decreasing Readmissions
- Optimizing Patient Scheduling
- Increasing ER Throughput
- Increasing Hospital Admissions
- Increasing Fall Prevention
- Improving Infection Control Prevention
- Improving Anemia and Transfusion Management
- Reducing Length of Stay
- Improving Coding Accuracy
- Identifying Business Development Opportunities
- Decreasing Medication Errors
- Decreasing Duplicate Orders
- Improving Revenue Integrity
- Improving Patient Satisfaction
- Improving Billing and Collections
- Improving Recruiting (Residents, MDs, and RNs)
- Improving NIH Grant Competitiveness

These areas represent just a few of the OUMC operational components that would receive value from a more advanced EHR. They help illustrate the data driven nature of modern health care. The current system does not appear to be fully meeting the needs of the stakeholders in this system.

Finally, one of OUMC's greatest assets—and one of its most important contributions to the citizens of Oklahoma—is the scope of services that it provides. Ensuring that Oklahoma has a Level 1 Trauma Center, the Children's Hospital, NCI designated cancer center, and other specialty services listed above brings tremendous health and economic benefits to the State. However, offering a wide range of specialty services, with nationally ranked programs comes at a higher operating cost than hospitals with few specialty offerings. These higher

operating costs, when combined with the high percentage of indigent care provided by OUMC, require state appropriations and programs such as THRP to ensure that the level of care is sustainable.

OUMI's SUPPORT OF THE UHA MISSION

OUMC provides more than 180,000 indigent patient encounters each year. This includes more than 122,000 Medicaid encounters, just over 5,000 DOC encounters, and more than 50,000 self-pay/charity care encounters. The cost of these services to OUMC during SFY 2019 was more than $373 million. Appropriation funding for this program is designated specifically for indigent and DOC costs. In addition to the basic medical services provided, OUMC serves as the largest provider of medical and health professions education in the state of Oklahoma and also serves as the largest medical research group in the state, as well.

Indigent Care: More than 45% of all OUMC inpatient services and 37% of all OUMC outpatient services are provided to populations that are classified as indigent.

Medical Education: OUMC trains more 400 medical residents each year. These residents are the primary resource for indigent and DOC services. This number does not include the OUHSC departments and other medical campus groups such as the VA. When all Oklahoma City based components are included, the total approved resident count for 2019 was 637 with 587 of those positions being filled. In addition to the residency and fellowship programs, the OUHSC provides the State's only MD program. The OUHSC campus also includes the colleges of Allied Health, Dentistry, Nursing, Pharmacy, Public Health, and Graduate Studies. The many benefits of having these colleges all on one campus include significant opportunities for cross-college collaboration in education and multidisciplinary research projects.

Medical Research: OUMC, in connection with OUHSC provides a center for the majority of medical research that is performed in the State of Oklahoma. OUMC also provides support for research projects as OUMC facilities are frequently used by OUHSC related researchers in conducting clinical trials. The research at OUMI Is heavily driven by the work at Stephenson Cancer Center.

OUMI's INDIGENT CARE AND DOC KPIs

KPI	KPI Description	Relationship to Mission
1. Maintain or improve capacity of hospitals—total inpatient days provided should be at or above prior year	Total inpatient days in current year compared to prior year.	Indigent Care
2. Maintain or improve capacity of outpatient services—total outpatient visits provided at or above prior years.	Total outpatient encounters in current year compared to prior year.	Indigent Care
3. Combined inpatient and outpatient indigent care encounters are equal to or greater than the number provided in the prior year.	Total inpatient and outpatient indigent care encounters.	Indigent Care
4. Cost savings to DOC for inpatient and outpatient services provided by OUMC is equal to or greater than the prior year.	Compare OUMC's cost of DOC services to the amount that would have been billed to DOC at a managed care rate.	Indigent Care
5. OUMC Risk Adjusted Mortality Index (All Cause) is at or below the Premier Median (Premier Median is set at 1).	Risk Adjusted Mortality Index is calculated by the Quality group as number observed / number expected.	Indigent Care
6. Risk Adjusted 30 Day Readmission Index (All Cause) is at or below the Premium Median (Premium Median is set at 1).	Observed readmissions / expected readmissions	Indigent Care

KPI	KPI Description	Relationship to Mission
7. CAUTI, CLABSI, and CDI Standardized Infection Ratios are at or below NHSN or Benchmark Medians (Median is set at 1).	Calculate Standardized Infection Ratios compared to NHSN or Benchmark Median.	Indigent Care
8. Combined PSI-90 rates are at or below a benchmark of 1.21.	Calculate rate per 1,000 patient days.	Indigent Care
9. HR maintains evidence of credentialing compliance for all relevant employees.	Evidence of compliance is maintained.	Indigent Care
10. Patient Safety Policy and Procedures for Reporting is reviewed each year and available to all staff.	Show evidence that risk management has reviewed policies and procedures for patient safety reporting on at least an annual basis and show evidence that reporting structure is available to all staff.	Indigent Care
11. Patient Experience is measured each year with a targeted patient satisfaction rate of 75% or higher.	Hospital system conducts a patient survey on at least an annual basis. Indigent care patients are included in this survey.	Indigent Care
12. IT system availability meets internal goals for the year. The two key systems for this metric are Meditech and Email.	Compare actual system available metrics to goals (primarily 99.999%).	Indigent Care
13. Patch management for workstations and servers is at or above prior year levels.	Compare % of patch management for workstations and servers to prior year numbers.	Indigent Care

KPI	KPI Description	Relationship to Mission
14. Conduct IT customer satisfaction survey each year.	Show evidence of customer satisfaction survey.	Indigent Care
15. Case mix index at or above prior year mix.	Compare current year case mix to prior year mix.	Indigent Care
16. Address indigent care needs of Oklahomans—Medicaid and self-pay/charity inpatient encounters is between 44% and 49% of total inpatient encounters.	Calculate Medicaid and self-pay/charity inpatient encounters as a percentage of total encounters.	Indigent Care
17. Address indigent care needs of Oklahomans—Medicaid and self-pay/charity outpatient encounters are between 34% and 39% of total outpatient encounters.	Calculate Medicaid and self-pay/charity outpatient encounters as a percentage of total encounters.	Indigent Care
18. EBIDA margin is above 11%.	Calculate EBIDA margin compared to benchmark.	Indigent Care
19. Operating margin is above 2.5%.	Calculate operating margin compared to benchmark.	Indigent Care
20. Bed occupancy ratio is at or above 75%. In year when new bed tower opens the expected ratio will likely decrease until new tower is brought up to full operating capacity.	Calculate occupancy ratio compared to benchmark.	Indigent Care

KPI	KPI Description	Relationship to Mission
21. Days cash on hand is at or above 85.	Calculate days cash on hand compared to benchmark.	Indigent Care
22. Number of grant proposals managed by the Office of Research Administration will be equal to or greater than the prior year.	Number of grant proposals submitted.	Medical Research
23. Number of grant awards managed by the Office of Research Administration will be equal to or greater than the prior year.	Number of grant awards received.	Medical Research

OUMC was ranked the number one hospital in Oklahoma and saw the Stephenson Cancer Center ranked in the top 50 nationally by the most recent *US News and World Report*. OUMC is also striving for higher ratings with groups such as The Leapfrog Group, which publishes annual healthcare ratings on safety, satisfaction, and overall quality. These groups generally use historic data and, as such, changes that have been implemented in the past year will not be evident in ratings and rankings until the next year or two. These types of rankings could be considered for future KPI metrics. In addition, emerging advances in telehealth mean that implementation of telehealth tools should also be considered for future metrics. Finally, construction is underway on a new adult patient tower. The new tower will significantly impact the capacity of the adult hospital. Once construction is complete, the volume related metrics should all be reassessed to ensure that targets are appropriate for the increased capacity.

DEAN'S GRADUATE MEDICAN EDUCATION PROGRAM

UNIVERSITY HOSPITALS AUTHORITY PROGRAM UNDERSTANDING DOCUMENTATION

PROGRAM:

OU Dean's Graduate Medical Education (GME) Program

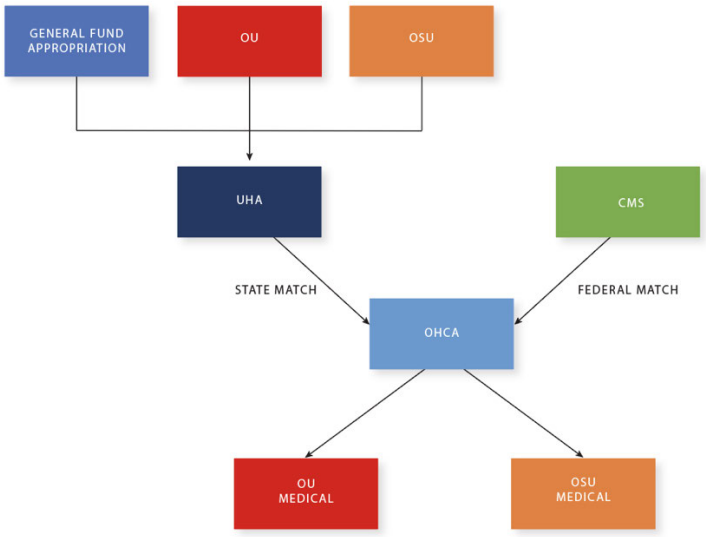
PROGRAM MISSION

To support graduate medical education in the State of Oklahoma.

HIGH LEVEL DESCRIPTION

This funding program was created to address the need to support medical residency programs in the State of Oklahoma and as an acknowledgement of the role those medical residents play in treating the State's indigent population. The program began with the Oklahoma HealthCare Authority (OHCA) obtaining approval – via a federal funding waiver – from the Centers for Medicare and Medicaid Services (CMS) to utilize supplemental Medicaid federal funding for residency program costs in recognition of the services provided to the State's Medicaid population. The supplemental Medicaid funding required state matching funds which were provided by the University Hospitals Authority (UHA), the University of Oklahoma (OU), and Oklahoma State University (OSU). The funds flow for this program prior to SFY 2019 is shown as follows:

Table 2a. Dean's GME Funds Flow Prior to SFY 2019



Unfortunately, CMS ended this funding option as of December 31, 2017. Through negotiation with CMS, a phase down period was put in place between August 31, 2018 and June 30, 2019. The Legislature has increased state funding for SFY 2020 to ensure that this program will continue permanently. The fund flow for this program is shown for SFY 2019 and SFY 2020 in the tables below:

Table 2b. Dean's GME Fund Flow During SFY 2019

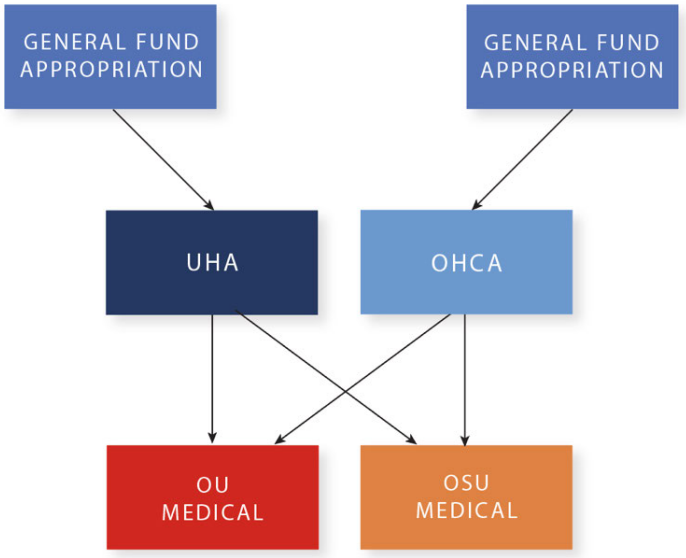


Table 2c. Dean's GME Funds Flow During SFY 2020

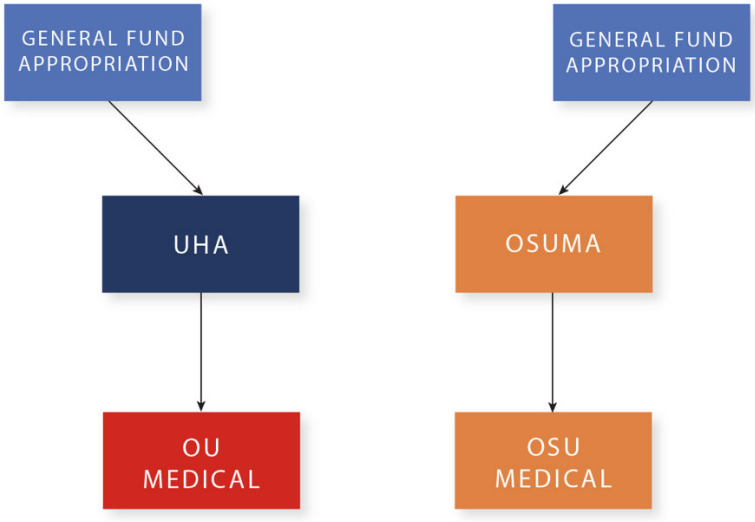


Table 2c illustrates that the funding for OSU which has historically been distributed through UHA will, beginning in SFY 2020, be disbursed through OSUMA. As a result of this change, the following documentation will focus on the OU portion of this program.

HISTORICAL BACKGROUND

The medical school at the University of Oklahoma dates back to the turn of the 20th century and has played a vital role in educating and training Oklahoma physicians ever since. The GME program is critical to ensuring that a pipeline of trained physicians remains available to meet the medical needs of the State.

Oklahoma began receiving CMS funding for GME in 1996. Upon receipt of CMS approval for the program, it was determined that the Oklahoma State Regents for Higher Education (OSRHE) could not receive state matching funds directly from the Legislature and as such, those funds were historically distributed through UHA and OHCA. The distribution flow changed in SFY 2019 and changed once again in SFY 2020 with the discontinuation of CMS funding.

NATIONAL STATISTICS

The Association of American Medical Colleges (AAMC) produces national numbers and rankings showing statistics on physician workforce by state as well as GME numbers by state[xi]. These numbers show that Oklahoma ranks poorly at 45th in terms of active physicians by population and is 48th in terms of general surgeons by population. However, Oklahoma ranks quite high at 11th for retainage of physicians who have completed GME in the state. The impressive retention numbers indicate that a key component of increasing the number of physicians in the state is to foster GME programs.

OU's GME program is by far the largest provider of graduate medical education in the State. The Accreditation Council for Graduate Medical Education (ACGME) is the group responsible for accrediting both MD and DO GME programs across the country. According to the 2018-2019 data produced by ACGME[xii], the University of Oklahoma College of Medicine program in Oklahoma City was 86th out of 847 accredited programs in terms of number of residents trained and 81st out of 847 programs in terms of the number of accredited GME programs offered. This puts the University of Oklahoma program in the top 10% of all programs nationally based on the number of accredited programs offered and the number of resident's trained. These numbers do not include the residency programs at the University of Oklahoma School of Community Medicine, located in Tulsa, OK. The School of Community Medicine is accredited with ACGME as its own entity and is the third largest program in the State of Oklahoma.

DEAN'S GME POPULATIONS SERVED

OUMC and the OU Physician's Departments support approved residency positions for approximately 500 residents each year. When combined with the approved residency positions at the VA Medical Center and local hospitals that number increases to approximately 637 resident positions. Of the approved positions in the Oklahoma City area, approximately 587 of those were filled during SFY 2019. These residents train in 62 specialty and subspecialty programs and make up almost half of all medical residency positions in Oklahoma. 83% of the OU programs are adult programs with the remaining 17% being pediatric.

The following table provides a breakdown of residency positions and program number across Oklahoma during 2018-2019 along with current accreditation status for each program. This chart was derived from information available from the ACGME.

Table 2d. Oklahoma Institutions Accredited with ACGME

Institution Name and Location	Accreditation Status	Number of Programs	Number of Residents	% of Total Residents in OK
University of Oklahoma College of Medicine Oklahoma City OK	Continued Accreditation	52	558	46.7%
Oklahoma State University Center for Health Sciences Tulsa OK	Initial Accreditation with Warning	21	247	20.7%
University of Oklahoma School of Community Medicine, at Tulsa Tulsa OK	Continued Accreditation	13	169	14.1%
Osteopathic Medical Education Consortium of Oklahoma, Inc. (OMECO) Tulsa OK	Continued Accreditation	5	58	4.9%
Integris Health Oklahoma City OK	Continued Accreditation	4	65	5.4%
St Anthony Hospital Oklahoma City OK	Continued Accreditation	3	42	3.5%
In His Image Inc Tulsa OK	Continued Accreditation	1	34	2.8%
Griffin Memorial Hospital Norman OK	Continued Accreditation with Warning	1	20	1.7%
Office of the Chief Medical Examiner-State of Oklahoma Oklahoma City OK	Continued Accreditation	1	2	0.2%
Total in Oklahoma		**101**	**1,195**	**100.0%**

The resident population in conjunction with attending doctors serve an outsized share of the indigent population in Oklahoma. Indigent care is defined as individuals classified as a payor group of Medicaid, self-pay, and charity care. The self-pay category is inclusive of most department of corrections (DOC) individuals, although, DOC is not charged for any services. At OUMC almost 33% of patients are indigent. That number jumps to 67% of all children's hospital inpatient encounters. The numbers are even more dramatic when looking at the OUMI teaching clinics. The OUMI teaching clinics encompass seven departments with numerous specialty areas in each department. They conduct over 27,000 patient visits each

year. The demographics of their patient population is such that between 19% and 35% of all patient visits are covered by Medicaid while another 48% to 68% are considered to be self-pay or charity care. These numbers are dramatic and underscore the importance of the resident programs in the provision of indigent care in Oklahoma.

PROGRAM FUNDING AND COST BENEFITS

During fiscal 2019 the funding sources for this organization were as follows:

Table 2e. GME Funding Sources

Funding Source (Appropriations, Revolving, Federal, Grants)*	Description of Funding Source	Amount Received in Fiscal Year 2019 ($ per year in millions)
State Appropriations	UHA Pass Through	$8.9
State Appropriations	OHCA Pass Through	$31.7
State Appropriations	State Allocation from OSRHE	$31.3
Grants and Contracts	Grants and Contracts	$89.1
OUMI Contracts	OUMI	$215.9
Service Revenues	Patient Services	$227.4

*Sources listed do not include gifts and endowment income.

As previously discussed, the ability to retain doctors in Oklahoma is one of the most direct benefits of this program. The OU GME program in Oklahoma City not only provides education to its own residents but, as the only provider of certain specialty services such as the inpatient pediatric, it also trains a high volume of rotational residents from other Oklahoma GME programs. Each year approximately 180 additional residents from other institutions such as OSU rotate through Oklahoma City. The cost of providing educational services, primarily in the form of attending time that could otherwise be spent in clinic, and the administrative costs of these rotational students is not currently calculated. There is also currently no reimbursement among institutions for these programs. In this regard, the OU GME program provides a valuable service to other GME programs throughout the State. As a result of the wide range of specialty services provided at OUMC, residents in other GME programs are able to complete required rotations in Oklahoma that their institution is not capable of providing.

In addition to retention of doctors, the overall economic impact of having an Association of American Medical Colleges (AAMC) Medical School and Teaching Hospital cannot be underscored. The medical school and teaching hospitals in Oklahoma are large employers and also large purchasers of goods and services. According to numbers produced by the

AAMC the spending by the medical school and teaching hospitals contributes $1.5 billion to the state economy and 23,822 jobs[xiii].

DEAN'S GME ORGANIZATIONAL STRUCTURE

The OU GME program is managed by the Associate Dean of Graduate Medical Education within the OU College of Medicine. However, the program relies on a spectrum of staffing and attending support from OUMC and across the OUHSC departments. The number of residents trained each year in Oklahoma City is generally just over 580 and the number of partial physician FTEs serving as department and sub-specialty directors is more than 60 each year.

DEAN'S GME PROGRAM MANAGEMENT

The GME program at OU is managed out of the OU College of Medicine and relies on the participation of departments across OUMC and OUHSC.

DEAN'S GME PROGRAM CHALLENGES

Currently there are more than 50 residency slots in Oklahoma City that are unfilled due to funding/resource needs. This number increases to more than 90 when including OU's Tulsa campus and the entire OU system. CMS's decision to discontinue future funding of this program places Oklahoma's GME programs in peril. The GME programs are vital to the State in terms of training and retaining the next generation of Oklahoma physicians but are generally not financially profitable. In addition to addressing the physician shortage in Oklahoma, the GME impact to the State economy, ability to provide needed indigent care, and the ability to impact the long-term health of Oklahoma citizens through medical research and support cannot be underscored.

DEAN'S GME SUPPORT OF THE UHA MISSION

The Dean's GME program initiatives align directly with the UHA mission of indigent care, medical education, and medical research.

Indigent Care: The residents and associated attending doctors of this program service an outsized share of all indigent care for the State of Oklahoma.

Medical Education: The OU Medical System is the largest provider of medical education in the State of Oklahoma. The medical school is the only medical doctor program in the State and the graduate medical education programs at the University of Oklahoma Medical College in Oklahoma City directly train more than half of the residents in the State with an additional amount rotating through from other institutions.

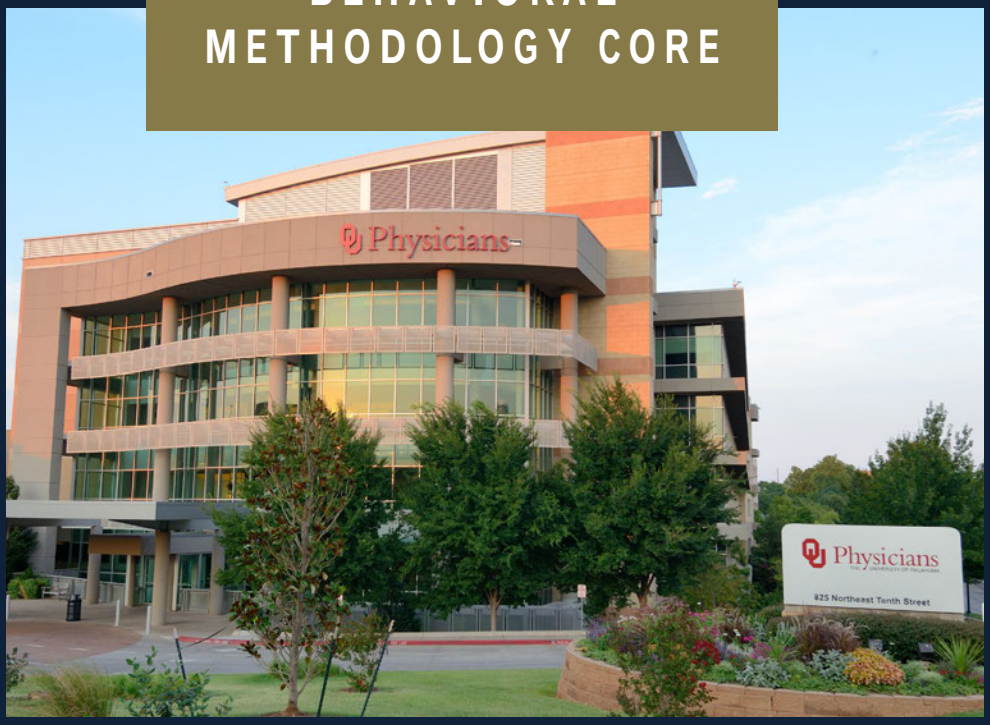
Medical Research: 100% of students perform scholarly activity, as defined by the ACGME, during their completion of GME. The research elements associated with having an AAMC medical school and teaching hospitals is estimated to directly employ 540 individuals and produce a value additive economic impact to the State of over $44M[xiv].

Dean's GME KPIs

KPI Number	KPI Description	Relationship to Mission
1. Number of residents trained across the entire OU system (includes Tulsa) is within 5% of accredited positions.	Number of residents trained compared to accredited positions.	Indigent Care/Medical Education
2. Number of specialty provider residency positions in OKC is equal to or greater than the prior year.	Number of specialty provider residency positions.	Indigent Care/Medical Education/Medical Research
3. Number of primary care residency positions in OKC is equal to or greater than the prior year.	Number of primary care residency positions.	Indigent Care/Medical Education
4. Number of unfilled but accredited resident positions across the entire OU system will be less than prior year unfilled.	Number of unfilled but accredited resident positions.	Indigent Care/Medical Education
5. The percentage of graduates that pass board certification exams on the first attempt is at or above 85%.	The percentage of graduates obtaining board certification on 1st attempt.	Indigent Care/Medical Education –
6. Amount of program director turnover is at or below the national average.	% of residents retained for full duration of program.	Indigent Care/Medical Education.

KPI Number	KPI Description	Relationship to Mission
7. Number of residents retained as physicians in Oklahoma after completing GME is at or above the national median of 44.9%.	Number of residents retained in Oklahoma after completion of residency.	Indigent Care/Medical Education
8. Overall results from ACGME Resident Satisfaction Survey are at or above the national average.	Measure resident's overall program evaluations compared to the national average.	Indigent Care/Medical Education.
9. 100% of ACGME accredited programs will have continued accredited with commendation.	% of programs that are accredited with commendation.	Indigent Care/Medical Education.
10. Number of residency programs (combined ACGME and non-ACGME) is at or above prior year.	Number of residency programs.	Indigent Care/Medical Education.
11. Number of indigent patients served at OUMC will be within 5% of prior year numbers.	Number of indigent patients served by program participants.	Indigent Care/Medical Education.
12. The number of scholarly articles authored or partially authored by residents and fellows is at or above the prior year number.	Number of scholarly articles produced.	Medical Education/Medical Research
13. The number of conference presentations given by residents and follows is at or above the prior year.	Number of conferences attended.	Medical Education/Medical Research

OU BIOMEDICAL AND BEHAVIORAL METHODOLOGY CORE



UNIVERSITY HOSPITALS AUTHORITY PROGRAM UNDERSTANDING DOCUMENTATION

PROGRAM:

OU Biomedical and Behavioral Methodology Core (BBMC) and the Department of Pediatrics Research Grants

PROGRAM MISSION

The BBMC mission is to support and enhance study design, data capture, and analytics for biomedical and behavioral research.

HIGH-LEVEL DESCRIPTION

BBMC is a collaboration between the University of Oklahoma (OU) College of Medicine's Department of Pediatrics and the Department of Biostatistics and Epidemiology within the OU College of Public Health. The team is comprised of biostatisticians, Infomaticists, and health services researchers, and offers a variety of support services for projects at any stage of development.

In addition to providing support services, BBMC team members continue to lead their own research studies within their own departments, including new method developments and applied research on Adverse Childhood Experiences (ACEs).

University Hospitals Authority (UHA) funding is specifically used by BBMC and the Department of Pediatrics in two areas. Just over half of the UHA research funding is currently dedicated to supporting the BBMC based ACE Center, while the remainder is used for research grants given out by the Department of Pediatrics.

The ACE Center has been developed under the leadership of Professor David Bard, Ph.D., who is a trained behavioral scientist and health-services research methodologist. The ACE Center has three areas of emphasis, all of which build upon the foundation already in place thanks to both prior and present studies. The first area of emphasis is a continuation of causal association and epidemiology studies of ACEs and protective factors. The second area of emphasis is prevention and intervention, with a focus on evaluating the importance of intervention quality and systems operations from an implementation science perspective. The third area of emphasis encompasses biological mechanisms of ACEs. Dr. Bard is progressing work that was already underway by expanding the depth and scope of biomarker

studies and exploring both ecological and biological mediation of the effects of ACEs exposure on development and health.

In addition to the ACE Center, UHA funding is utilized by the Department of Pediatrics to award two $75,000 grants each year. The 2019 grant application notes that "the purpose of this Pediatric Team Science Grant Program (TSGP) is to integrate research by the Department of Pediatrics with that of other departments and schools at OU Health Sciences Center (OUHSC), and OU Norman, promoting team-based, scientific collaborations and developing new cutting-edge translational research programs by taking advantage of the broad intellectual and scientific resources existing across the OU campuses." The Grants specifically seek to create collaborative approaches and foster innovation by having research projects lead by co-principal investigators, one in the Department of Pediatrics and one in a different department at OUHSC or OU Norman.

The grant proposal must center specifically on the complementary collaborative relationship, such that the scientific objectives could only be achieved by a combined effort of the investigators and their respective expertise and/or disciplines, sharing support to obtain preliminary data to develop a broadly based, multidisciplinary research program focused on a specific disease entity, biomedical problem area, or clinically relevant problem. The combination and integration of studies may include basic, translational, clinical, and/or community-based research endeavors. It seeks to foster collaboration among basic scientists, clinical investigators, applied scientists such as engineers or environmental scientists, and community-based or hospital-based practitioners and population health specialists. The proposal must demonstrate an intended long-term collaborative relationship.

Grant support for the process of developing and supporting such a new research initiative that results in a robust project is viewed in three-steps:

1. Seed funding support for one year (this grant), leading to a
2. Competitive application for a one-to-two year PHF Team Science grant, leading to a
3. Competitive application for NIH or other peer-reviewed external grant funding.

Grant recipients report and meet regularly with a review board established by the Department of Pediatrics. The review board ensures that recipients are utilizing funding in accordance with grant requirements, are appropriately documenting results of the work performed, and are preparing for competitive PHF and eventual NIH funding applications. These grants function as a kick-starter for medical research in the state of Oklahoma and serve as spring board into future funding opportunities that bring funds into Oklahoma for future medical research.

HISTORICAL BACKGROUND

BBMC was established in 2013 to address an identified methods support gap in the Research Strategic Plan of the Department of Pediatrics. The program was restructured and expanded in 2018 to include a center for ACE research. The ACE Center's broad mission is to harness advanced methodology to integrate biomedical and behavioral research that informs and improves healthcare for children. More specifically, the ACE Center specializes in the biobehavioral study of adversity and resiliency among children and youth.

NATIONAL STATISTICS

According to a study by Vanessa Sacks, M.P.P., David Murphey, Ph.D., and Kristin Moore, Ph.D., Oklahoma is the only state in the nation to rank in the bottom quartile for the eight ACE indicators investigated. In addition, Oklahoma was tied with West Virginia and Montana for states that have the highest percentage of children who have four or more ACE indicators[xv]. Oklahoma has worked to improve its ranking since the first study was performed by this group. However, it is imperative that more improvements are made as ACE indicators have been found to not only impact physical and mental health of children but also dramatically impact both physical and mental health of those children later in life.

OUHSC is currently making strides to improve the amount of research funding that is brought into the State; however, Oklahoma currently ranks in the bottom third of states in terms of total funding (funding from all sources) spent on research[xvi].

BBMC POPULATIONS SERVED

In the last two years, BBMC team members have worked tirelessly to fulfill their scholarship directive. During that time, they have produced approximately 36 peer reviewed manuscripts, 11 peer reviewed grant reports, and given 32 presentations. These presentations have spanned the spectrum from local venues to international conferences. In addition, BBMC has a strong educational focus that results in the provision of classroom instruction and mentoring relationships with graduate students, medical residents, post-doctoral students, and fellowship students. The number of mentorship opportunities provided averages around 12 per semester.

Similarly, TSGP has created opportunities for pediatric research projects that would likely not have historically existed. The funding provided serves as a springboard for these projects to enable to the project teams to apply for national funding and serves as a catalyst for cross specialty research collaboration.

PROGRAM FUNDING AND COST BENEFITS

During fiscal 2019, the funding sources for this organization were as follows:

Table 3a. Fiscal 2019 BBMC Funding Sources

Dedicated Funding Source (Appropriations, Revolving, Federal, Grants)	Description of Funding Source	Amount Received in Fiscal Year 2019
State Appropriations	UHA Passthrough	$400,000*
Federal Grants	Primarily NIH and HRSA	1,268,230
Federal Waivers	Sponsored by ACF	312,077
Other Grants and Contracts	Foundations	2,580
Total		**$1,982,887**

*These UHA funds are split with the Department of Pediatrics in the OU College of Medicine.

BBMC provides vital support for medical research in the State of Oklahoma. State appropriations specifically support the ACE Center and multiple research grants issued by the Department of Pediatrics. The ACE Center work is critical to not only understanding the impact of adverse childhood experiences, but also to finding ways to potentially mitigate the long-term health consequences of these experiences and provide education on the importance of avoiding adverse experiences when possible. The future health savings generated by this type of work are almost impossible to quantify; however, they are nevertheless extremely important when considering the known health consequences of ACEs in a state that already suffers from some of the worst adult health outcomes in the country.

Department of Pediatrics research grant dollars provide a variety of long reaching benefits for the State. In addition to advancing medical research, these dollars have the added ancillary benefits of supporting medical research projects that employ highly skilled individuals and generally lead to federal and private funding being brought into the State.

BBMC ORGANIZATIONAL STRUCTURE

BBMC currently supports six PhD level faculty, four masters-level staff members, and five graduate students. In addition, this organization works in close collaboration with a number of other individuals within the jointly affiliated groups of OUHSC's Section of Development and Behavioral Pediatrics. In addition, the services provided by BBMC reach far beyond these departments.

The grans managed by the OU College of Medicine's Department of Pediatrics are under the Pediatrics organizational structure. Once awarded, grant recipients have access to advisors and projects are overseen by a grant advisory board.

BBMC'S PROGRAM MANAGEMENT

According to BBMC's fiscal 2019 year-end reporting, the BBMC services branch operates on a fee-for-service basis for all non-sponsored projects. Billing is managed through an online tracking system which is also designed to capture initial project support requests (*see* Request Support link at https://ouhsc.edu/bbmc/). Although work within pediatrics is prioritized, requests for support outside this area are accepted when projects require expertise or resources unique to BBMC (e.g. behavioral methodology, etc.). Invoices are distributed quarterly for all active or recently completed projects, and charges cover dedicated FTE support and a small, fixed administrative support fee to offset costs of resource maintenance (e.g., hardware/software) and project coordination. BBMC also provides support to sponsored projects where these same salary and resource costs are budgeted items of the grant or contract. The management and administrative structure of BBMC was slightly altered during calendar year 2019 in order to free up much of Dr. Bard's time to focus on the ACE Center. Historically, the researchers in this group have been stretched for time between normal research responsibilities and also having a full complement of program management responsibilities.

BIOMEDICAL SCIENCES BUILDING RENOVATIONS

The SFY 2020 budget for UHA includes $5 million in funding for renovation work to the Biomedical Sciences Building. The building was originally constructed in 1976 and has an estimated full replacement cost of $55 million. Most of the research space in the building has not been renovated since the time of original construction. The average research dollars generated per investigator per year in non-renovated space is $140,000, which is in contrast to the $530,000 average for equivalent renovated space. It is currently estimated that the cost of renovating ten new laboratories in the building will total $10 million. This means that the UHA investment will require $5 million in SFY 2020 and $5 million in SFY 2021. The return on this investment is anticipated to be significant.

The ten planned laboratories will accommodate up to twenty-five new researchers. Adding twenty-five researches at an average of $530,000 in annual funding would equate to over $13.2 million in external research funding. Using the 2013 Battelle Technology Partnership Practice estimate of $2.24 in economic impact for every $1.00 of external research funding, the renovated lab space would have an estimated economic impact of as much as $29.7 million per year.

BBMC'S PROGRAM CHALLENGES

BBMC's challenges are similar to other research-based projects in an academic environment with limited resources. In addition, as was discussed in the program management section, many individuals working with BBMC wear many hats and serve in a variety of managerial and research capacities. It will be incumbent on BBMC management to maintain proper controls and oversight to ensure efficient and effective usage of the limited funds available. This is particularly true as BBMC continues work on developing a new dedicated space for staffing and research. Certain funding has been identified to support the new space development beginning in SFY 2020.

Within the Department of Pediatrics, the amount of grant funding each year is far outweighed by the number of grant requests received. The limited and competitive nature of the grants helps ensure that the quality of the projects selected are generally high and the amount of oversight for these grants is also manageable. However, there are few economies of scale that can be leveraged with such a small population of grants. In the event that more funding were available, more projects could be supported which would in tern likely generate additional external funding in future years.

SUPPORT OF THE UHA MISSION

BBMC's and the Department of Pediatrics TSGP initiatives align directly with the UHA mission of medical research. Moreover, BBMC's research also impacts medical education as the advances generated by BBMC research will inform medical education, particularly in the area of adverse childhood experiences. Similarly, TSGP provides students with the opportunity to obtain valuable experience with grant funded research. This includes important areas such as the application process, collaboration with other groups, running a research project, reporting findings, and grant reporting.

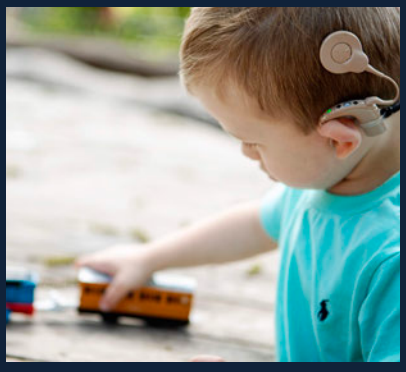
BBMC AND DEPARTMENT OF PEDIATRIC GRANTS KPIs

KPI Number	KPI Description	Relationship to Mission
1. The Department of Pediatrics will award at least two grants each year for medical research.	Number of grants awarded each year.	Medical Research
2. BBMC will produce at least 10 publications per year.	Number of published peer review articles.	Medical Research

KPI Number	KPI Description	Relationship to Mission
3. BBMC researchers will take part in a minimum of 8 presentations each year.	Number of presentations given each year.	Medical Research/Medical Education
4. BBMC will provide analytic services on a fee-for-service basis for non-sponsored projects at a fee that will cover the administrative needs of the BBMC service branch.	Compare amount charged in fee for service to cost of providing that service.	Medical Research
5. BBMC and the Department of Pediatrics will generate a minimum of 2 external funding requests each year.	Number of grant and other external funding proposals generated each year.	Medical Research
6. BBMC will successfully obtain external funding for a minimum of 50% operational funding needs.	Calculate the percentage of operational costs covered by external funding.	Medical Research
7. The ACE Center costs will be within 5% of budget.	Show ACE Center costs compared to budget.	Medical Research
8. The Department of Pediatric grant award winners will successfully obtain additional grant funding 50% of the time after the initial award.	Calculate the percentage of grant recipients that are able to transition funding to other sources after the initial funding period.	Medical Research

When construction of a new facility begins in SFY 2020 construction management metrics should be developed and added to the key metrics reported UHA.

HEARTS FOR HEARING



UNIVERSITY HOSPITALS AUTHORITY PROGRAM UNDERSTANDING DOCUMENTATION

PROGRAM:

Hearts for Hearing (HFH)

PROGRAM MISSION

HFH creates life-changing opportunities for children and adults with hearing loss to listen for a lifetime.

HIGH-LEVEL DESCRIPTION

HFH provides comprehensive hearing healthcare and listening and spoken language therapy for babies, children, and adults, including diagnosis, fitting of hearing aids, programming cochlear implants, weekly speech therapy, parent support groups, parent-toddler groups, preschool, summer camps, and teen groups who meet quarterly. HFH's unique model of audiologists and speech-language pathologists working together is recognized internationally, and the listening and spoken language outcomes are setting the standard across the world. Additionally, HFH is a research center in the field of hearing health and is currently involved in five different national projects with vendors and universities who receive NIH funding.

HFH currently operates locations in Oklahoma City and Tulsa. However, these two locations service patients from all 77 counties in the State. The organization has seen tremendous growth since its formation. By leveraging standard insurance collections with private donations and a small amount of state funding, the organization is able to ensure that families who visit HFH will pay nothing for services until a child turns five. The age established for support was in effect until the end of SFY 2019. It is likely that this age will be increased In SFY 2020.

HISTORICAL BACKGROUND

HFH was established in 2003 to provide funding for the initial set of hearing aids for children with hearing loss in Oklahoma. HFH first received state support in 2005. In 2007, the mission was expanded to become a comprehensive hearing health clinic for both children and adults. 2007 also saw the start of a collaborative model of audiologists and speech-language pathologists working together to provide the best outcomes for children. In 2013,

the organization opened a clinic specifically for adults. HFH opened a new Oklahoma City headquarters in 2016 and opened its permanent space in Tulsa in April of 2019.

NATIONAL STATISTICS

Unlike most of Oklahoma's national health statistic rankings, hearing impairment identification and treatment and deaf education has been a success story for Oklahoma. Oklahoma was among the first states to require screening of all infants for hearing impairment. This early testing has been critical in identification and early treatment options. If hearing loss is not detected and treated early, it can impede speech, language, and cognitive development. Over time, such a delay can lead to significant educational costs and learning difficulties. The National Center for Hearing Assessment and Management (NCHAM), for example, reports that detecting and treating hearing loss at birth for one child saves at least $400,000 in special education costs by the time that child graduates from high school[xvii]. If this number is applied only to the 89 new cases identified by HFH during calendar year 2018, the amount of educational savings generated would total over $35 million. These educational savings are spread over the course of a child's primary education (kindergarten through twelfth grade), meaning that children diagnosed and treated at the organization's inception in 2003 are still generating education savings in 2019.

HFH POPULATIONS SERVED

The pediatric population served by HFH has seen year-over-year average growth of more than 18% over the last ten years. 2019 is on track to see the highest amount of year-over-year growth, as well as the largest number of pediatric patients seen in a single year.

Although the adult population served by HFH does not utilize any UHA funding, it is important to note that the adult patient population has been rapidly increasing in recent years, as well. This significant increase is not only a testament to the quality of services provided by HFH, but also to the need for these services in the Oklahoma.

During state fiscal year (SFY) 2019, HFH served 5,775 children on site at one of its two locations. 3,751 of those qualified for some level of SoonerCare, while another 25 children were uninsured. In addition to onsite services, HFH has an agreement with Head Start to provide hearing screenings and with Putnam City Schools to provide hearing services. These programs saw a combined additional 1,651 children during SFY 2019.

PROGRAM FUNDING AND COST BENEFITS

During fiscal 2019, the funding sources for this organization were as follows:

Table 4a. Fiscal 2019 HFH Funding Sources

Dedicated Funding Source (Appropriations, Revolving, Federal, Grants)	Description of Funding Source	Amount Received in Fiscal Year 2019 ($ per year)
State Appropriations	UHA Passthrough	595,867
Head Start	OHD Grant	39,798
Grants & Fundraising	Grantors and donors	4,321,831
Service Revenues	Patients	2,247,306
Administrative	Interest/Rewards	78,235
Hearing Technology*	Patients	2,549,442
Total		**9,832,479**

*Includes sales of adult hearing aids.

As described above, early detection is key to ensuring the best results for patients, as well as the greatest cost benefit to the State. The potential savings of $400,000 per student in special education costs over the course of a child's primary education is one that is directly recognized by the State.

HFH ORGANIZATIONAL STRUCTURE

Table 4b. HFH Organizational Structure

Employee Type	FTEs
Employees	88
Audiologists	26
Audiology Assistants	5
Speech-Language Pathologists	19
Total FTEs	**138**

HFH PROGRAM MANAGEMENT

HFH is managed by a dedicated team of professionals, many of whom have clinical experience in the field of hearing loss. The wide range of operational services provided by HFH is tied together by the overall mission. Staffing levels have grown significantly in

recent years to meet the resource demands of an expanding patient base. Most administrative functions are currently based at HFH's headquarters in Oklahoma City.

HFH PROGRAM CHALLENGES

In many ways, the current challenges facing HFH are a product of their own success. It is estimated that over 90% of parents in Oklahoma now choose cochlear implants for children with hearing loss. HFH has seen tremendous growth in the last ten years, and it expects to continue on a significant growth trajectory with the opening of its new Tulsa facility. With rapid growth, there are organizational and managerial functions that must be developed and matured to ensure proper institutional controls. HFH is currently working to adapt and develop its policies and procedures to match the size of the organization and ensure that funds are well managed.

HFH's SUPPORT OF THE UHA MISSION

The HRH program initiatives align directly with the UHA mission of indigent care, medical education, and medical research.

Indigent Care: More than 64% of pediatric patients seen by HFH are children who have some form of SoonerCare coverage.

Medical Education: HFH takes its role as an educational organization very seriously, and contributes to medical education in Oklahoma on multiple fronts:

- HFH provides externships and observation opportunities for students in speech-language pathology and audiology.
- HFH provides support and educational programming for physicians and other healthcare providers around the state.
- HFH provides a wide range of patient education, forums, and connections to support groups and other resources.

Medical Research: HFH specialists produce and collaborate on numerous medical studies and papers each year. The research that is done through HFH helps advance the best practices for hearing treatment both in the United States and abroad. The recognition Oklahoma has received for its work in this field has tied the State into a network of providers and researchers that will ensure that Oklahoma remains on the forefront of hearing treatments.

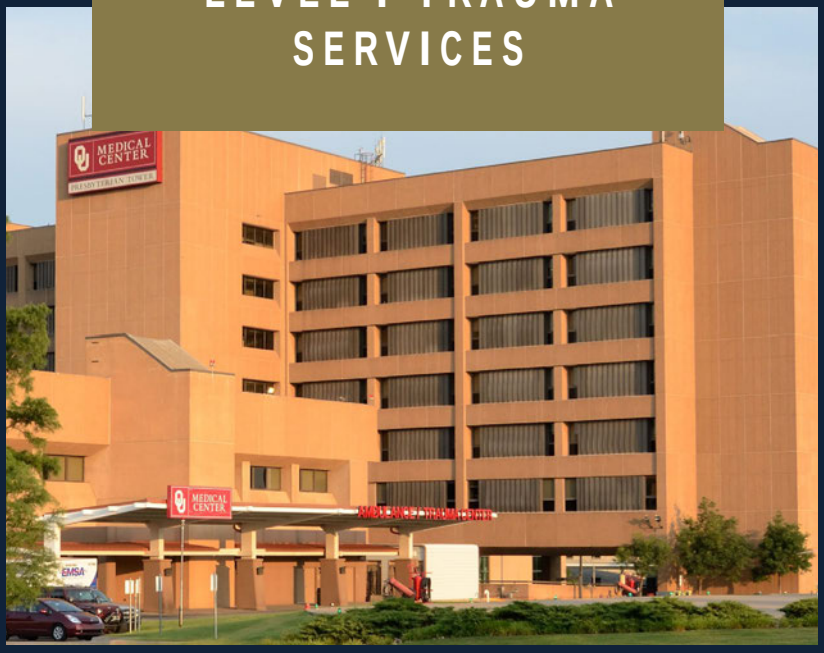
HFH KPIs

KPI Number	KPI Description	Relationship to Mission
1. HFH will identify at least 100 new children (age 0-3 years) with hearing loss annually.	Number of new children (age 0-3 years) identified with hearing loss at HFH compared to benchmark.	Indigent Care/Medical Education
2. HFH will provide audiological services for diagnosis and management of Oklahoma children with significant hearing loss from birth through age 18.	Amount of audiology services provided to children at HFH funded through UHA funding compared to benchmark.	Indigent Care/Medical Education
3. HFH will provide the first appropriately fit hearing aids, including remote microphone technology, for every newly identified Oklahoma child with significant hearing loss under the age of 10 years 11 months, at no cost to the family. Benchmark for FY 2019 will be 100.	Number of children (age 0 - 10 years 11 months) fit with hearing technology at HFH funded through UHA compared to benchmark.	Indigent Care/Medical Education
4. HFH will serve children with hearing loss in each of Oklahoma's 77 counties.	Calculate the total number of counties served during the year.	Indigent Care/Medical Education

KPI Number	KPI Description	Relationship to Mission
5. HFH will provide auditory-verbal therapy, by speech-language pathologists with specialized skills, to babies and children with significant hearing loss at sites in Oklahoma City and Tulsa and in counties across the state through tele-intervention. Benchmark for FY 2019 services will be $175,000.	Amount of auditory-verbal therapy services provided to children at HFH funded through UHA funding compared to benchmark.	Indigent Care/Medical Education
6. HFH will provide group therapy or auditory-oral preschool experience for children with hearing loss aged 2-4 yrs. of age as well as a summer camp for children aged kindergarten thru middle school, focused on the development of listening and spoken language in a group setting with focus on pragmatic and social language development. Targeted benchmark for FY 2019 is $74,000.	Number of group therapy & summer camp tuition assistance recipients at HFH funded through UHA compared to benchmark.	Indigent Care/Medical Education

KPI Number	KPI Description	Relationship to Mission
7. Number of education programs provided or conference presentations given is at or above a baseline of six per year.	Calculate the total number of programs provided or talks given during the year and compare to benchmark.	Medical Education
8. HFH will conduct a patient satisfaction survey each year.	Conduct a survey each year and collect results.	Indigent Care
9. HFH safety protocols will be reviewed and updated annually.	Date of last review and update of protocols.	Indigent Care/Medical Education
10. Combined administrative and fundraising costs are maintained at or below 25% of total revenue.	Calculate administrative expenses as a % of total budget.	Cost Effectiveness
11. HFH's data security policies and procedures will be reviewed annually.	Date of last data security review and update of policies and procedures.	Indigent Care

OU PHYSICIAN'S LEVEL I TRAUMA SERVICES



UNIVERSITY HOSPITALS AUTHORITY PROGRAM UNDERSTANDING DOCUMENTATION

PROGRAM:

OU Physician's Level 1 Trauma Services

PROGRAM MISSION

The OU Medicine mission is leading health care – in patient care, education and research. Through our combined efforts we strive to improve the lives of all people.

The OU Medical Center (OUMC) contains the only Level 1 Trauma Center in the state of Oklahoma and as such provides services to the most complex cases in the State.

HIGH LEVEL DESCRIPTION

Trauma centers are designated by criteria set at the state and local level. That criteria can differ from state to state; however, the American College of Surgeons (ACS) performs a voluntary verification process every three years. The ACS verifies the presence of the resources listed in Resources for Optimal Care of the Injured Patient. These include commitment, readiness, resources, policies, patient care, and performance improvement.

According to the ACS, the different levels (ie. Level I, II, III, IV or V) refer to the kinds of resources available in a trauma center and the number of patients admitted yearly. These are categories that define national standards for trauma care in hospitals. Categorization is unique to both Adult and Pediatric facilities. The OU Level I Trauma group has both adult and pediatric capabilities.

As discussed above, designation criteria can vary by state and region but the ACS lists the following as examples of common criteria for Level 1 centers:

- 24-hour in-house coverage by general surgeons, and prompt availability of care in specialties such as orthopedic surgery, neurosurgery, anesthesiology, emergency medicine, radiology, internal medicine, plastic surgery, oral and maxillofacial, pediatric and critical care.
- Referral resource for communities in nearby regions.
- Provides leadership in prevention, public education to surrounding communities.
- Provides continuing education of the trauma team members.
- Incorporates a comprehensive quality assessment program.

- Operates an organized teaching and research effort to help direct new innovations in trauma care.
- Program for substance abuse screening and patient intervention.
- Meets minimum requirement for annual volume of severely injured patients.

A Level I Trauma Center is a comprehensive regional resource that is a tertiary care facility central to the trauma system. A Level I Trauma Center is capable of providing total care for every aspect of injury – from prevention through rehabilitation.

The Level 1 Trauma Center at OUMC is both designated by the State and verified by the ACS. The next closest Level 1 Trauma Centers are located in Dallas, TX and Wichita, KS.

OUMC's Level 1 Trauma Center is comprised of a multidisciplinary team of doctors, nurses, and health care staff as well as specialists such as board-certified trauma surgeons. The center has state-of-the-art equipment capable of treating the most complex and critical injuries. The Trauma Center's services are available 24 hours a day, seven days a week. OUMC's Trauma Center pulls hundreds of providers from more than 15 specialty areas to offer the needed services to be considered a Level 1 group. The appropriation funding passed through UHA is provided by the state in recognition of the excess staffing and administrative costs that are required to run this type of center. This funding should not be confused with the funding from the Trauma Fund that is managed by OSDH. Trauma fund dollars are eligible to hospitals and providers across the state - including OUMC - for uncompensated care provided by those facilities and providers.

The Level 1 Trauma Center at OU sees more than 2,000 patients each year from all across Oklahoma and surrounding states.

HISTORICAL BACKGROUND

Since 2001, the OU Level 1 Trauma Center has been the only Level One trauma option in the State. The placement of this center is strategic on many levels. OUMC and the OUHSC combined campus make up the largest concentration of medical providers, medical researchers, and medical educators in the State. OUMC offers more specialty services than any other hospital group in the State and contains Oklahoma's only comprehensive children's hospital. This concentration of medical professionals is complemented by a location that is central to the State. Location is critical in Trauma care as the timing of care plays a significant role in determining the outcome of the patient. The faster treatment is administered, the better the patient's change of survival and long-term recovery.

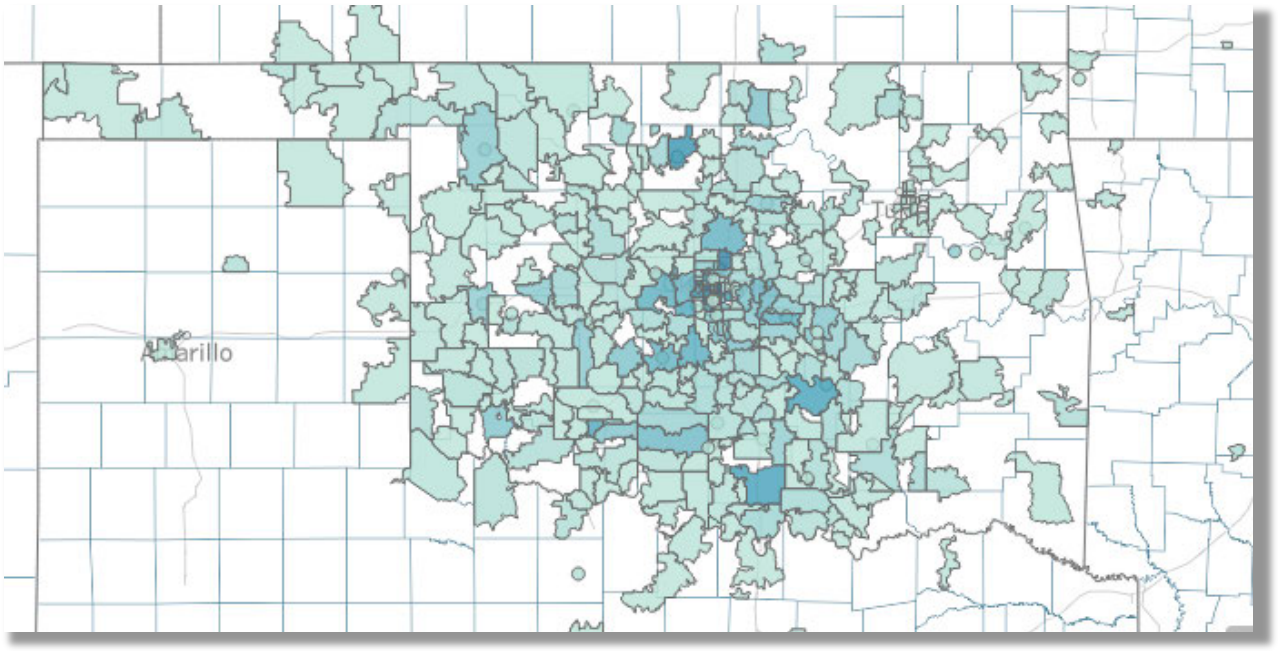
NATIONAL STATISTICS

As previously mentioned, Level 1 Trauma designations are not nationally standardized. Based on the information available, there are approximately 200 Level 1 Centers in the U.S.. However, not all of the Centers are verified by the ACS[xviii]. The relatively small number of Level 1 Trauma Centers nation-wide, is a testament to the expense and challenge of maintaining this type of facility. The high cost of 24-hour staffing of specialists along with the specialized equipment that is often needed proves to a be a significant barrier to operating this type of Center.

POPULATIONS SERVED

OUMC serves patients from all 77 counties in Oklahoma as well as patients from out of state. The Level 1 Trauma Center provided care to over 2,000 individuals during state fiscal year 2019. OUMC has both adult and pediatric Level 1 Trauma designations; however, the patient demographics for the Trauma Center are heavily skewed. Approximately 90% of trauma patients are over the age of 18. Much like OUMC's general population, indigent care makes up a significant portion of all trauma care demographics. The map below illustrates the different areas where trauma patients originate from.

Table 5a. Geographic Origins of OUMC's Level I Trauma Patients



The following table illustrates the highest utilization areas of the Level I Trauma Center:

Table 5b. Top Service Lines by Utilization

Rank	Level I Trauma Services
1	Orthopedic Surgery
2	Surgery
3	Anesthesiology
4	Radiology

PROGRAM FUNDING AND COST BENEFITS

During fiscal 2019 the funding sources specifically related to Level I Trauma were as follows:

Table 5c. Fiscal 2019 Level I Trauma Funding Sources

Funding Source (Appropriations, Revolving, Federal, Grants)	Description of Funding Source	Amount Received in Fiscal Year 2019 ($ per year in millions)
State Appropriations	UHA Passthrough	$0.875
OSDH LI Trauma PMT*	OSDH Payment	$2.0
Service Revenues	Insurance, Medicare, Medicaid, Self-Pay	$4.0

*Payment amounts are dependent on services provided and amount available in Trauma Fund. The payment timing generally does not correspond to the year of service.

Service revenues shown in Table 5c are only intended to reflect services related to the Level I Trauma Center.

LEVEL I TRAUMA ORGANIZATIONAL STRUCTURE

The Level I Trauma Center is overseen by the OU Department of Surgery. The department maintains an on-call agreement with OUMC. The Department of Surgery specifically lists six physicians as trauma surgeons but has the support of hundreds of OUMC medical professionals.

LEVEL I TRAUMA'S PROGRAM CHALLENGES

The Level 1 Trauma Center at OUMC is a tremendous asset to the entire state of Oklahoma. The Center ensures that 24 hours a day, seven days a week there is a facility with full trauma capabilities to handle any level of critical medical issue. However, offering this level of

service and access to equipment comes at a high operating cost. Prior to 2001 Oklahoma had more than one Level 1 Trauma Center. The cost of staffing, equipment, and medical research that is required to be considered a Level 1 center proved to be too great for other hospitals to maintain. The continued sustainability of the center will require both highly efficient and effective management and support from the State in recognition of the service that is being provided.

OUMC LEVEL I TRAUMA CENTER'S SUPPORT OF THE UHA MISSION

The OUMC sees more than two thousand Level I Trauma patients each year. Many of these patients are indigent. In addition, the Center provides a variety of training and research opportunities for residents and Trauma physicians.

Indigent Care: more than 45% of all OUMC inpatient services and 37% of all OUMC outpatient services are provided to populations that are classified as indigent. From a payment perspective, Medicaid patients make up more than 15% with self-pay making up an additional 20% of Level 1 Trauma payments.

Medical Education: Key components of having a Level 1 Trauma designation include: participating in the training of residents, leading in education and outreach activities including providing continuous rotations for senior residents, providing emergency medicine and the surgical specialty residency programs, providing an acute care surgery fellowship, and offering continuing education for trauma nurses and continuing medical education for trauma surgeons.

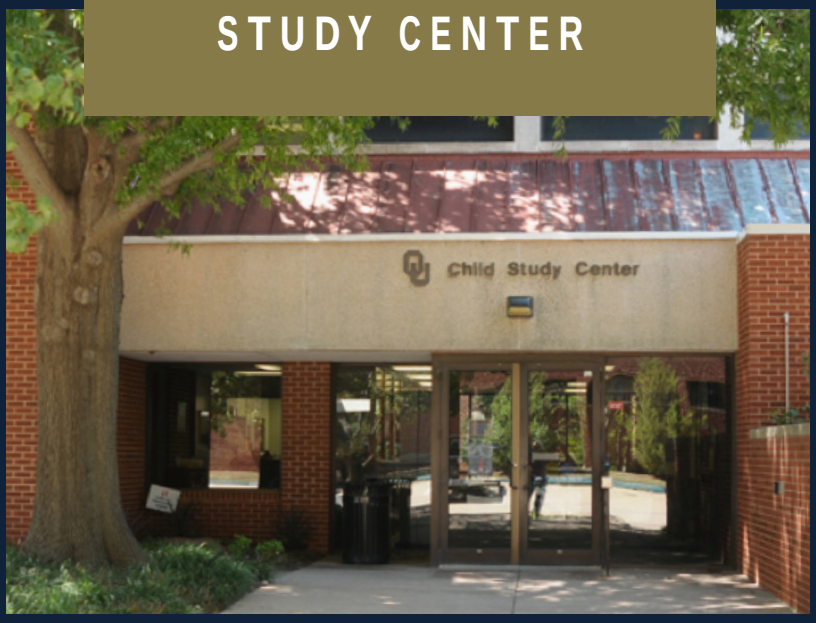
Medical Research: An additional component of Level 1 Trauma designation is the establishment of a successful trauma research program with a minimum of 20 peer-reviewed articles published in specified journals or 10 peer-reviewed articles published in specified journals and the demonstration of four specified trauma-related scholarly activities.

LEVEL I TRAUMA'S KPIs

KPI	KPI Description	Relationship to Mission
1. Maintain sufficient physician/provider coverage for Level I Status – trauma providers available will be greater than 400.	Number of trauma providers available.	Indigent Care
2. Number of Trauma patients treated is	Number of trauma patients treated.	Indigent Care

KPI	KPI Description	Relationship to Mission
appropriate to maintain Level 1 Status. The number treated in a year should be greater than 1,200.		
3. Number of residency slots filled is adequate to maintain Level I Trauma designation.	Number of residents.	Medical Education
4. Number of peer reviewed papers generated is appropriate to maintain Level 1 Trauma designations.	Number of papers generated.	Medical Research
5. ACS verification process is fulfilled every three years.	Evidence of compliance is maintained every year.	Indigent Care/Medical Research/Medical Education
6. Ensure that appropriate numbers of board-certified trauma surgeons are employed.	Number of board-certified trauma surgeons.	Indigent Care/Medical Education
7. Patient Experience is measured each year.	Hospital system conducts a patient survey on an annual basis. Indigent care patients are included in this survey.	Indigent Care – CMS/Operational
8. All filing deadlines for the OSDH Trauma Fund reimbursements are met.	All filing deadlines are met.	Indigent Care

OU HEALTH AND SCIENCE CENTER CHILD STUDY CENTER



UNIVERSITY HOSPITALS AUTHORITY PROGRAM UNDERSTANDING DOCUMENTATION

PROGRAM:

OU Health Science Center (HSC) Child Study Center

PROGRAM MISSION

The goal of the OU Child Study Center (CSC) is to improve the lives of children with special needs and their families through interdisciplinary preventive and rehabilitative services, research, and training. The CSC fits within the overall mission of the Section of Developmental and Behavioral Pediatrics and the Section's objective to maximize the development and well-being of children by strengthening the child, family, and community through interdisciplinary clinical care, advancement of evidence-based practices, professional education, advocacy, and research.

HIGH-LEVEL DESCRIPTION

The CSC is a freestanding outpatient facility of the OU Health Sciences Center in the Department of Pediatrics. The CSC provides evaluation, treatment, and services for children with special needs who have a wide range of developmental disabilities and environmental and behavioral problems such as:

- Attention Deficit Hyperactivity Disorder (ADHD)
- Autism
- Asperger's Disorder
- Behavior Problems
- Cerebral Palsy
- Child Abuse and Neglect
- Fetal Drug and Alcohol Exposure
- Gross and Fine Motor Delays
- Language and Speech Disorders
- Learning Disabilities
- Neuropsychological Impairment (resulting from seizures, traumatic brain injury, other neurological disorders, etc.)
- Other Developmental Disabilities
- Social/Emotional Disorders

In conjunction with serving the special diagnostic needs of children and their families, the CSC provides unique opportunities for children and their families to find access to additional services that may be located in local communities, educational opportunities for care givers, and even access to education for the patients. Pediatric residents, psychologists, and students from several other disciplines participate with the CSC professional staff in evaluation and treatment programs. CSC leads the Oklahoma Leadership Education in Neurodevelopmental and Related Disabilities program (LEND) to provide family-centered, culturally sensitive, interdisciplinary care, as well as many other programs providing training and services to children and their families.

CSC provides clinic and service programs, some of which include:

- Parent-Child Interaction Therapy
- Individual Therapy and Assessment
- A Better Chance (A program supporting children exposed to drugs and alcohol)
- Jump Start (Program to help families and care providers understand the strengths and challenges faced by young children suspected of having autism spectrum disorder.)
- Oklahoma Autism Center
- Sooner SUCCESS
- Selective Mutism
- Child Trauma Services
- Program for Problematic Sexual Behavior
- Positive Parenting Programs

State appropriations passed through UHA are currently used in support of the Oklahoma Autism Center, Sooner SUCCESS, and general clinical operations.

The Oklahoma Autism Center increases the State's capacity to serve children with autism and their families using evidence-based intervention strategies. In addition, the Oklahoma Autism Center provides training and technical assistance to service providers who are working with children with autism and provides education and resources to caregivers of children with autism.

Sooner SUCCESS is a program that connects children and youth with special healthcare needs to programs and services best equipped to help them succeed. This important work assists families and adolescents make the transition from pediatric services into adult health care programs. The point of transition between child services and adjust services can be challenging to navigate and is critical to ensuring a continuum of care for those in need.

HISTORICAL BACKGROUND

Prior to 2002, the CSC was managed by the Children's Hospital. It is currently managed by the OUHSC in the Department of Pediatrics. CSC is a unique resource for the State of Oklahoma based on the number of services and programs provided. In addition, it provides a unique learning experience for future healthcare providers in Oklahoma. Pediatric residents, psychologists, and students from other disciplines participate with CSC staff in evaluation and treatment programs, helping to develop and provide more holistic solutions to healthcare needs.

NATIONAL STATISTICS

According to the Centers for Disease Control (CDC) one in five children are diagnosed with a mental illness, and yet only 20% of those diagnosed (or 4% of all children) receive care from a specialized mental health provider. The CDC has identified several barriers to pediatric mental health specialty care, including: (1) parents reluctant to seek professional help; (2) cost; (3) insufficient mental health provides to meet demand; (4) lack of access to specialized providers; (5) long waiting lists; and (6) lack of insurance coverage[xix].

These barriers are particularly acute in areas like Oklahoma with large rural population demographics. The CSC is one of the only options in Oklahoma for a team-based interdisciplinary approach to childhood behavioral issues and mental health diagnosis. The broad nature and capabilities of the CSC team allow for much more efficient and accurate diagnosis and treatment plan development.

In addition, the Annie E. Casey Foundation reported that Oklahoma ranks among the bottom ten states for child well-being when aggregated across four major categories of their annual Kids Count Profile. This profile takes into consideration health factors, family and community factors, education factors, and economic well-being. A bright spot in these national statistics, however, is that Oklahoma saw either stabilization or improvement between 2010 and 2017 in every subcategory except the number of children in single-parent families[xx].

CSC POPULATIONS SERVED

CSC served almost 3,000 Oklahoma families during calendar year 2018 with a total of 5,568 clinic encounters.

Table 6a. Fiscal 2019 CSC Populations Served

Program	Families Served
Child Study Center Clinics	1,453
Sooner SUCCESS Program	1,192
Oklahoma Autism Center	335
Total of all Programs	**2,980**

The Autism Center's services are available to all Oklahoman's and even those from outside Oklahoma. Sooner SUCCESS is more targeted in that it is currently available in 19 counties that cover around half of the State's total population. The CSC would like to expand Sooner SUCCESS to additional counties.

PROGRAM FUNDING AND COST BENEFITS

During fiscal 2019, the funding sources for this Section of Developmental Pediatrics within the Department of Pediatrics were as follows:

Table 6b. Fiscal 2019 CSC Funding Sources

Dedicated Funding Source (Appropriations, Revolving, Federal, Grants)	Description of Funding Source	Amount Received in Fiscal Year 2019 ($ per year)
State Appropriations	UHA Passthrough	$574,245
Grants	Federal & State	8,202,609
Service Revenues	Clinical / IDX Revenue	469,863
Service Revenues	Service Agreements, Honorariums, Training & Conference Registration	2,298,280
Total		**$11,544,997**

State appropriations are used as follows:

Table 6c. CSC uses for UHA Passthrough Funding

Program Use	Amount
Oklahoma Autism Center	$74,652
Sooner SUCCESS	200,986
General Clinical Operations	298,607
Total	**$574,245**

A byproduct of having state support for evidence-based models is that it allows the organization to be more competitive when applying for federal and foundation-based grants. In SFY 2019, the Developmental and Behavioral Pediatrics group received $6.7 million federal grants, almost $400,000 in foundational grants and contracts, and $2.3 million in state grants and contracts. In SFY 2018, the group received $9.3 million in federal grants, a little over $250,000 in foundational grants and contracts, and $2.7 million in state grants and contracts. Additionally, in SFY 2019 the department submitted 29 applications for grants and contracts, 25 of which were federal grants and four foundation proposals. As of year-end SFY 2019, six additional federal grants had been submitted and were pending decisions.

CSC ORGANIZATIONAL STRUCTURE

Table 6d. Fiscal 2019 CSC FTEs

Employee Type	FTEs
Full Time Employees (FTEs)	99
Partial FTEs	24
Adjuncts	2

CSC PROGRAM MANAGEMENT

As previously discussed, the CSC is a group within OUHSC's Section on Developmental and Behavioral Pediatrics within the Department of Pediatrics. The management is therefore consolidated with the department management. Most of the cost of this program is concentrated in salary and benefits provided to clinical staff and assistants. Remaining operational costs are concentrated in building and office costs, including the Autism Center and county sites.

CSC PROGRAM CHALLENGES

The most pressing current program limitation appears to be a lack of dedicated, consolidated space for CSC's activities. Program groups are spread out across various parts of the OU HSC's campus, and, in the case of the Autism Center, offsite. Wait times for clinic appointments range from one month to six months depending on the services needed. These wait times have been shortened from a historic timeline of 18 months due to a policy change that has closed the clinic to external referrals. The space issue not only constrains availability for patient services, but also hinders the recruitment and retention of physicians, pathologists, and other faculty. This is particularly true of both the CSC and Autism Center as facility resources impact on the ability to attract and retain professionals.

In addition to space constraints, the program is limited financially by limits to funding clinical services provided by the CSC. Medicaid and other insurance programs do not adequately reimburse evidence-based approaches to care including interdisciplinary care, group therapy, services provided to parents and other caregivers, and Applied Behavioral Analysis (ABA). For example, ABA work that is performed by clinic personnel is not currently considered to be a covered service by the Oklahoma Health Care Authority (OHCA). OHCA is working to expand Medicaid coverage in this area, and this would make a significant difference in the financial stability of this group. The hours spent on ABA work are more significant than many other areas of pediatric work; however, the long-term benefits to the patient and to the State overall from a cost saving standpoint are significant. The individualized nature of ABA diagnosis and outcomes can make it hard to specifically quantify savings. Groups such as the Centers for Disease Control and Prevention (CDC) recognize the importance of early detection and intervention and its role in helping children achieve their full potential and preventing early communication issues from turning into more challenging behaviors.

CSC'S SUPPORT OF THE UHA MISSION

The CSC's program initiatives align directly with the UHA mission of indigent care, medical education, and medical research.

Indigent Care: CSC does not currently break out socioeconomic indicators in their patient demographic records; however, according to Census Bureau data, more than half of Oklahoma's children are either covered by Medicaid or are uninsured. The patients seen by CSC are likely to be in line with State averages or more closely aligned with the Children's Hospital Demographics which show that more than 67% of children seen are covered by Medicaid or are uninsured.

Medical Education: CSC is a vital part of the medical education experience for 39 residents each year. Over 400 pediatric residents, psychologists, and students from several other disciplines participate with the CSC professional staff in evaluation and treatment programs. The Autism Center is central to CSC's educational mission—last year, Autism Center staff trained over 2,000 educators and other professionals. The Autism Center has created an infrastructure for developing a statewide community-based services for children with autism and their families which includes:

- A model demonstration and training site providing treatment for young children with autism in an inclusive setting with their peers;
- Replication of this model in 3 additional locations;
- Professional development for educators including trainings, demonstration and coaching at school sites;

- A network of professionals who conduct screening in local communities across the state to aid in early identification of children with autism; and
- Two federally-funded clinical trials to evaluate the effectiveness of an early treatment model.

Medical Research: A core component of CSC's mission is to provide research that furthers the goals of the program, including the provision of family-centered, culturally sensitive, interdisciplinary care for children. To this end, CSC team members are constantly conducting research in applicable areas, and are currently involved in multiple federally-funded clinical evaluation projects on services for Oklahoma children and families. This work also results in a number of publications and presentations each year on the work being done by CSC team members, as reflected below (covering the last two fiscal years):

Dissemination Activities	**2018**	**2019**
Publications	18	19
Presentations – International	17	16
Presentations – National	80	52
Presentations – Local and Regional	337	289

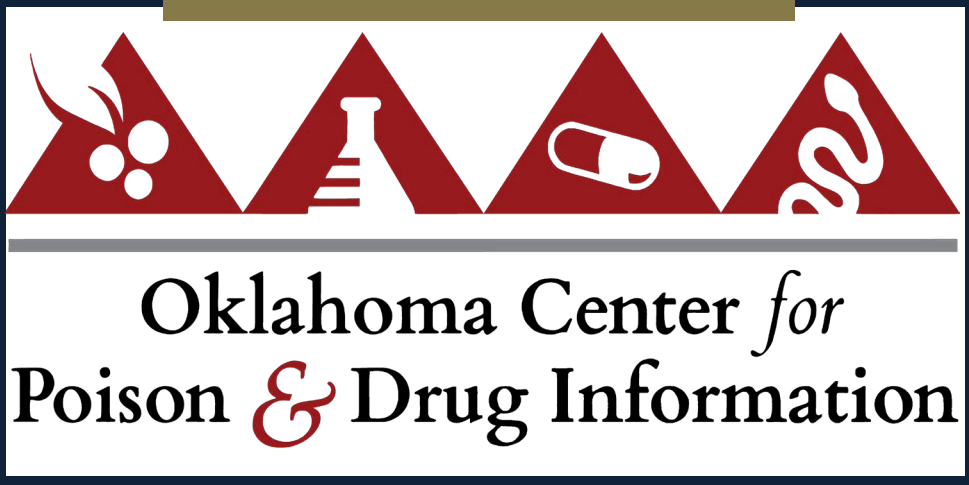
CSC KPIs

KPI Number	KPI Description	Relationship to Mission
1. Improve access to care for Oklahoma families by increasing number of patients served through Sooner SUCCESS resource navigation. Number of patients served during fiscal year is at or above prior year levels.	Calculate number of patients served compared to prior years.	Indigent Care/Medical Education
2. Improve access to care for Oklahoma families. The number of children served at community sites will be equal to	Count number of children served at community sites.	Indigent Care/Medical Education

KPI Number	KPI Description	Relationship to Mission
or greater than the prior year.		
3. Improve access to care for Oklahoma families. The number of clinical provider/staff FTEs will be increased from the prior year.	Number of clinical provider/staff FTEs.	Indigent Care/Medical Education
4. Improve access to care for Oklahoma families by increasing number of autistic patients served. Number of autistic patients will be at or above prior year levels.	Number of autistic patients served compared to prior year.	Indigent Care/Medical Education
5. Improve billing accuracy by entering 90% of CDC forms into PICIS within 7 days of office visit.	100% of CDC forms entered into PICIS within 7 days of office visit.	Indigent Care/Medical Education
6. Improve productivity by reducing no-show rate to below 9%.	Number of appointments conducted compared to number scheduled.	Indigent Care
7. Reimbursement rate for clinical and behavioral health services will both be greater than 25%.	Calculate reimbursement rate for clinical and behavioral health and compare to benchmark of 25%.	Indigent Care
8. Administrative costs (excluding clinical salaries) will be less than 5% of the total budget.	Calculate administrative costs (excluding clinical salaries) as a % of the total budget.	Cost Effectiveness
9. Maintain accreditation status with AAAHC (Accreditation	Demonstrate that accreditation has been maintained.	Indigent Care/Medical Education

KPI Number	KPI Description	Relationship to Mission
Association for Ambulatory Health Care).		
10. Number of residents/students trained during fiscal year is at or above prior year levels.	Calculate number of residents and/or students trained during current fiscal year compared to prior year.	Indigent Care/Medical Education
11. Conduct a patient satisfaction survey each year.	Conduct a survey each year and collect results.	Indigent Care
12. CSC will apply for at least 2 grants each year.	Number of grants applied for compared to benchmark.	Medical Education/Medical Research
13. CSC will provide at least 275 training and educational experiences.	Number of trainings and educational seminars conducted compared to benchmark.	Medical Education/Medical Research
14. CSC staff will produce at least 19 publications each year.	Number of publications produced by CSC staff compared to benchmark.	Medical Education/Medical Research

OKLAHOMA CENTER
FOR POISON AND
DRUG INFORMATION



UNIVERSITY HOSPITALS AUTHORITY PROGRAM UNDERSTANDING DOCUMENTATION

PROGRAM:

Oklahoma Center for Poison and Drug Information

PROGRAM MISSION

The Oklahoma Center for Poison and Drug Information (OCPDI) exists to provide information concerning the prevention and management of potentially toxic exposures to the people of Oklahoma. OCPDI's goal is to save lives, as well as to provide a cost-effective service to patients and residents by promoting the appropriate use of health care resources.

HIGH-LEVEL DESCRIPTION

OCPDI provides 24/7 assistance to the public and medical professionals. Services provided include:

- Poison Information, including information on toxic exposures, food poisoning, food preparation/handling practices, plant toxicity, and safe use of household products.
- Drug Information, including information on adverse effects, calculations, generic/brand name information, dosage, contraindications, interactions with other drugs, and medication disposal.
- Medical Information, including information on general poison-related first aid, medical toxicology terminology, and assistance in locating antidotes and antivenin.
- Prevention/Safety Information, including information on poison safety and prevention questions, educational presentations for the public and healthcare professionals, media consultations, educational materials, and pharmaceutical disposal information.

HISTORICAL BACKGROUND

OCPDI is the State of Oklahoma's only nationally certified poison control center. Originally founded in 1962 as the Oklahoma Poison Control Center (the Center), this organization provides information concerning the prevention and management of potentially toxic exposures to the people of Oklahoma. OCPDI has operated a 24/7 phone line available to all areas of the state since 1978. In 1994, the Oklahoma Poison Control Act was passed, mandating that the Center be administrated by the University of Oklahoma College of

Pharmacy. Almost two decades later, in 2013, the Center's name was formally changed to OCPDI in an effort to reflect the full range of information provided by the organization.

NATIONAL STATISTICS

Nationwide, poison control centers are a key component of the health care system. They serve as a resource for both individuals and healthcare providers, providing life-saving information directly to those in need at any time day or night. These groups are an example of effectively connecting the most knowledgeable professionals directly to those in need, which results in saving human lives with an added bonus of saving hundreds of millions of dollars in unnecessary healthcare costs (primarily emergency room visit costs) each year. A study performed by The Lewin Group in 2012 estimated that, nationally, the poison control system was saving over $1.8 billion per year in medical costs and productivity[xxi].

Recent studies, however, indicate that there is significant and continued growth in both the need and usage of poison control centers. A 2017 NCHS study, for instance, showed that the age-adjusted rate of drug overdose deaths in 2015 was 2.5 times what it was in 1999[xxii]. The updated 2018 NCHS study then showed that from 2014 to 2017, the rate increased on average 16% per year[xxiii].

OCPDI provides Oklahoma with a vital connection to the American Association of Poison Control Centers (AAPCC), which not only provides independent evaluation and certification of all 55 national centers, but also provides a network of peers for education, conferencing, and back-up affiliations to ensure that, in the event a center is not accessible, other centers are available and able to accept calls during the outage periods.

IMPORTANCE OF REGIONAL CENTERS

The existence of 55 independent centers might lead one to question the need for so many individual organizations. Data collection performed by each of these centers and submitted to the AAPCC, however, provides a great deal of insight into the unique needs of the centers. The data shows that regional differences in plants, animals, human cultures, socioeconomic conditions, and general living conditions (example: rural versus urban) lead to significant differences in the types of questions received and thus the knowledge base that each poison control center must maintain. The regional approach to coverage has therefore been found to strike the optimal balance between organizational efficiencies and regional knowledge.

OCPDI POPULATIONS SERVED

OCPDI received calls from all 77 counties in Oklahoma during 2017. A total of 37,104 calls were received in 2017, which averages to more than 100 calls per day. In addition to calls received, follow-up calls placed by OCPDI totaled 41,460—or almost 114 calls a day. Almost

58% of the total calls involved exposure of children five years of age or younger. Over 50% of the people assisted by OCPDI were either uninsured or covered by government sponsored health care programs.

PROGRAM FUNDING AND COST BENEFITS

OCPDI is currently going through a critical time in its funding history. Although it is legislatively mandated, this program has not historically received sufficient state funding to cover resource needs. During fiscal 2019, the funding sources for this organization were as follows:

Table 7a. SFY 2019 Funding Sources for OCPDI

Funding Source	Description of Funding Source	Amount Received in Fiscal Year 2019 ($ per year)
State Appropriations	State funding via Oklahoma Colleges of Medicine	1,462,000
Federal Grants	HRSA Poison Stabilization	220,073
OK State Contracts	OSDH Contracts	188,079
CO State Contracts	Denver HHS Contracts	54,291
Private Contracts	Norman Regional Hospital	15,000
OUHSC	Poison Center Reserves	302,565
Total		**2,242,008**

The usage of reserve funds to meet operational needs has resulted in what will be a full depletion of reserves by the end of fiscal 2019. Recognizing the value of the program and potential cost savings for the State through its continued existence, the Legislature provided $510,000 of appropriations funding through UHA in SFY 2020. Using national studies, it is possible to compare the projected cost savings for the state to the cost of this program. 2016's total program expenditures were approximately $2.2 million while total estimated savings as a result of this program were estimated at $16 million. The savings were calculated using a model developed by The Lewin Group.

Furthermore, there is likely room for additional savings. CDC statistics show that in 2017, unintentional poisoning was among the top ten causes of emergency room visits for all age groups with the exception of children between the ages of 5 and 15[xxiv]. OCPDI was able to manage almost 90% of human exposure calls at home. For the remaining 10% that could not be treated at home, OCPDI was able to provide assistance in transferring relevant information to appropriate healthcare facilities and work with healthcare professionals to ensure proper course of action and treatment.

OCPDI ORGANIZATIONAL STRUCTURE

Table 7b. Fiscal 2019 OCPDI FTEs

Employee Type	FTEs
Clinical Staff*	14
Student Assistants	2.4
Education Coordinator	1
Administrative & Tech Support	1.2
Total FTEs	**18.6**

* Clinical staff consist of three board-certified clinical toxicologists, one board-certified medical toxicologist, and a staff of highly trained pharmacists and nurses working under the toxicologists.

OCPDI requires a highly specialized skill set for staffing its call center. Not only do these individuals have training and knowledge of toxicology that allows them to provide expert advice to physicians and other medical professionals, but they also have the ability to work directly with individuals who are experiencing emergency situations in their own home or business.

In addition to the staff listing above, OCPDI currently contracts for medical director services with a local medical doctor who is a board-certified medical toxicologist. This individual does not work for the OCPDI in a full-time capacity and is currently the only medical toxicologist in the State of Oklahoma. This individual is nearing retirement and, as a result, OCPDI will undertake transition planning in the coming years. This planning will need to include the budgetary consideration of a transition period to a new medical director.

OCPDI PROGRAM MANAGEMENT

This program functions on a very small administrative budget. Most of the cost of this program is concentrated in salary and benefits provided to clinical staff and student assistants. The cost per FTE for this organization is not comparable to other state agency organizations due to the highly skilled nature of the staff. Management utilizes call volume, caller demographics, and encounter severity information to ensure that staffing models match the needs of the dynamic call volumes throughout the course of a week. For example, higher staffing levels are needed in the evenings and weekends when citizens are at home with small children. In addition, call demographics are tracked and shared with other poison control centers and, when appropriate, other federal and state agencies. For instance, trends in certain call types may indicate the need for additional educational programs to address emerging issues.

Management has also begun tracking educational outreach efforts. The new data allows the organization to quantify the services and exposure that is provided state-wide by the organization.

OCPDI PROGRAM CHALLENGES

OCPDI's current program limitations stem from the need for technology improvements. OCPDI does not currently have the ability to access electronic medical files in the University Hospital System and/or correspond with health care professionals electronically. In addition, the call management system that is currently in place at OCPDI is dated and no longer maintained by the provider. This system will need to be updated in the coming years. Finally, adding current electronic communication capabilities, such as online chat, would provide additional options for reaching the community in need of professional guidance. The national trend for poison control centers has been slightly lower call volumes in recent years as more and more individuals utilize online resources to gather information. OCPDI is committed to providing the highest quality information to the general population and health care professionals that the organization serves.

OCPDI'S SUPPORT OF THE UHA MISSION

OCPDI's program and mission support all three pillars of the UHA mission:

Indigent Care: More than 50% of the calls received by OCPDI are from individuals who are either uninsured or are a part of government programs. Included in that 50% are Oklahoma Medicaid program (SoonerCare) participants, who make up 44% of all calls.

Medical Education: OCPDI employs a full-time education coordinator who, along with staff, travel throughout the state teaching poison prevention and first aid for poisonings. The education coordinator provides training for members of the public, while the toxicologists provide training for medical professionals such as physicians, nurses, pharmacists, and first responders. Education courses for medical professionals are also offered at the poison control center. In addition to the external education provided by OCPDI, the organization also employs 2.4 student assistants through a program with the University of Oklahoma.

Medical Research: OCPDI shares information with the AAPCC that is used to conduct research at a national level. In addition, OCPDI currently has a contract with the Rocky Mountain Poison and Drug Center to provide data for medical research purposes.

OCPDI KPIs

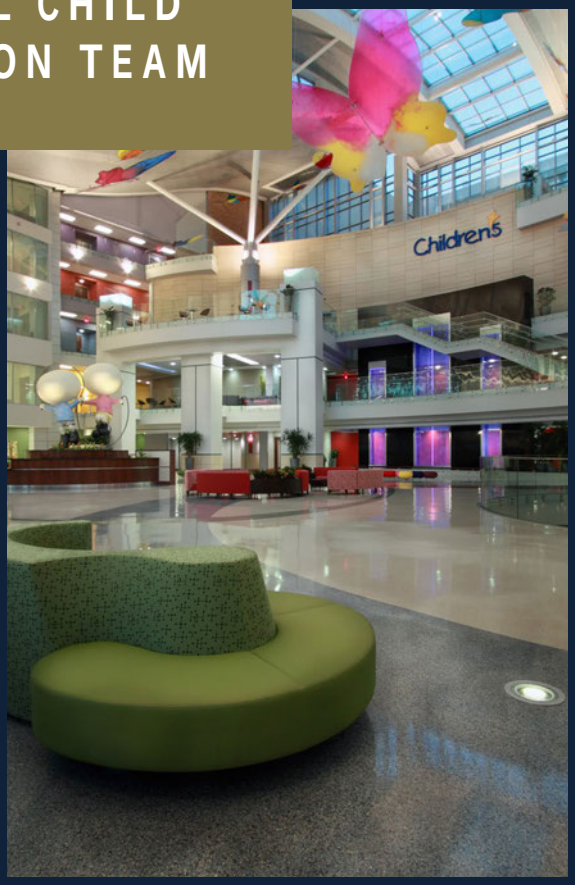
Note: Functionally it may appear that OCPDI is a typical call center and thus should use primarily call center KPIs; it is important to note, however, that this organization is staffed by highly skilled medical professionals and that calls are based on medical needs.

KPI Number	KPI Description	Relationship to Mission
1. Retention of student assistants for a minimum of two years is at or above 75%.	Number of students employed who return for a second year of service.	Medical Education
2. Calls per specialist FTE per year does not dip below 2,000 or rise above 5,500.	Call volume each year divided by specialist FTE.	Indigent Care/Medical Education
3. Maintain AAPCC accreditation and receive approval of annual compliance report filed with AAPCC.	Accreditation is evaluated and awarded by AAPCC every seven years and maintained through approval of annual compliance reporting.	Indigent Care/Medical Education
4. Call abandonment rate of less than 5%.	The number of abandoned calls each year as a percentage of total calls received.	Indigent Care/Medical Education
5. Number of education programs provided to medical professionals is at or above a baseline of 12 annually.	Calculate the total number of educational programs provided during the year to medical professionals.	Medical Education
6. Conduct a satisfaction survey every year.	Conduct a survey each year and collect results.	Indigent Care/Medical Education
7. Maintain a call coverage area of all 77 counties.	Calculate the total number of counties served during the year.	Indigent Care/Medical Education
8. Number of education programs provided to the public is at or	Calculate the total number of educational programs	Medical Education

KPI Number	KPI Description	Relationship to Mission
above a baseline of 36 events annually.	provided during the year to the public.	
9. The amount of savings generated in healthcare costs compared to total program budget is at or above a 7:1 ratio.	Calculate total estimated cost savings based on national formula compared to total program budget.	Cost effectiveness
10. Administrative and technical costs for this program are less than 15% of the total budget.	Calculate administrative costs (this excludes clinical staff salaries and student costs) then compare to total budget.	Cost effectiveness

In the coming years, as the OCPDI works to update and implement key programmatic technology such as the call management system, key reporting metrics should be updated to include IT implementation management metrics if the new systems are material to the organization.

CHILDREN'S HOSPITAL CHILD PROTECTION TEAM



UNIVERSITY HOSPITALS AUTHORITY PROGRAM UNDERSTANDING DOCUMENTATION

PROGRAM:

Children's Hospital Child Protection Team (CPT) Responsible for Child Abuse Assessment

PROGRAM MISSION

The CPT is hospital-based and has a three-fold mission: (1) Reviewing cases of suspected child abuse and neglect that present to Children's Hospital and clinics; (2) Providing professional consultation about child maltreatment to individuals and agencies across the state of Oklahoma; and (3) Providing education and training in child maltreatment.

HIGH-LEVEL DESCRIPTION

The CPT is responsible for evaluating cases (patients) who have suspicions of child abuse and neglect that are seen through the OU Children's Physician clinics, the Children's Hospital, and other referral sources wanting expert advice. The functions of the CPT include the following:

- Evaluating and staffing 1,100 to 1,300 cases per year;
- Handling more than 130 subpoenas per year;
- Providing consultative services, as well as training, to hospitals, medical and nursing staff, law enforcement, and child welfare agencies throughout Oklahoma;
- Coordinating the medical information, CPT reports, and other medical records in accordance with HIPAA and the state child abuse statutes;
- Providing expert witness testimony regarding child abuse throughout Oklahoma;
- Providing educational training to medical students, pediatric residents, and pediatric emergency medicine (PEM) subspecialists;
- Participating and promoting advancement in the field of child abuse and neglect through scholarly activities;
- Participating in statewide task force committees and councils regarding child abuse, as well as some national boards;
- Providing medical evaluations and consultative services to the Oklahoma County Children's Advocacy Center (CARE Center);
- Providing forensic interview training throughout Oklahoma; and

- Providing consultations and peer review with other advocacy centers and multidisciplinary teams throughout Oklahoma.

The CPT was established to provide resources within the Children's Hospital to remove the burden from hospital groups relating to the investigation, verification, treatment, and legal ramifications of identifying child abuse. The CPT's activities consume considerable time and attention, and coordination of efforts encompasses the entire OU Health Science System (OUHSS), as well as state and local social services and law enforcement. This team is comprised of multiple partial physician FTEs supplemented by a physician's assistant adding up to only 2 FTEs of protected time for child abuse and neglect cases. This team is responsible for providing evaluation services, coordination with social service organizations, coordination with law enforcement, and professional and public education in child maltreatment.

On both the state and national levels, physicians, nurses, mental health professionals, child protective service personnel, tribal and Indian Health Service professionals, and advanced students in numerous disciplines benefit from these programs. The Children's Hospital is the only group in the state that has child abuse pediatricians available. The child abuse subspecialty of pediatrics is relatively new, having been granted certification status by the American Board of Pediatrics in 2007. In addition, the Children's Hospital is the only children's hospital in the state, and, as such, sees cases from all parts of the state. For example, Tulsa is the second largest city in Oklahoma, but it does not have pediatric orthopedic services available on nights and weekends. Consequently, all nights-and-weekends cases are sent to the Children's Hospital. In fact, half of the cases staffed and reviewed by the CPT come from outside Oklahoma County. The children from outside Oklahoma County are often hospitalized in the pediatric intensive care unit because they reflect far more serious injuries and have a much higher probability of resulting in court involvement. The children are sent to the Children's Hospital because they require many subspecialty services that are only provided in Oklahoma by this facility.

CPT physicians are on call at all times, yet are highly constrained by lack of resources for back-up staffing. This group must balance the needs of seeing patients (often in emergency room settings) with requirements to testify in court cases and provide educational services throughout the state that are critical to local identification of abuse and prevention.

HISTORICAL BACKGROUND

CPT was founded in 1975 as a joint endeavor between the Children's Hospital and the OU Department of Pediatrics. The team is the third oldest children's hospital-based team in the United States and is modeled after a multidisciplinary team based out of the University of Colorado Children's Hospital.

At the time CPT was founded, the Children's Hospital was operated and funded by the Oklahoma Department of Human Services (ODHS). When operations were transferred to HCA Healthcare, the support for this program was reduced. The OU Department of Pediatrics assumed most of the expense for the program with the diminished hospital support; however, the department does not have sufficient resources to support the program.

NATIONAL STATISTICS

It is challenging to compare states with regards to child abuse and maltreatment as different states use different definitions of abuse and neglect. Reported numbers are aggregated each year by groups like the U.S. Department of Health & Human Services' Administration for Children and Families (ACF). The ACF collects state data reported through the National Child Abuse and Neglect Data System (NCANDS) and produces annual reporting. The most recent child maltreatment report shows that the number and rate of victims nationally have fluctuated over the past five years; however, categories of maltreatment have remained fairly consistent. In addition, demographics of children most likely to suffer from maltreatment have not changed. The most common age group for maltreatment are children under the age of five. Oklahoma ranks among the top six states for child abuse fatalities and has an estimated victim rate for child maltreatment of 16.1/100,000 population[xxv]. The following section provides more detailed information on the children served by the CPT.

CPT POPULATIONS SERVED

CPT has seen an average of over 1,000 patients per year for the past five years, and is on pace to see well over 1,200 patients in 2019. The annualized 2019 number represents an increase in patients of almost 190% in the past ten years. This type of growth is very challenging given the limited resources of the organization. The following charts illustrate the patient numbers and demographic information:

Table 8a. CPT Staffings Over last 10 Years

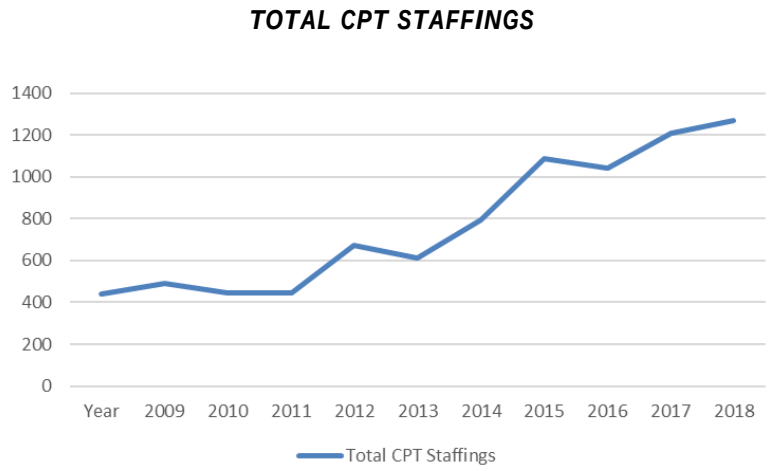
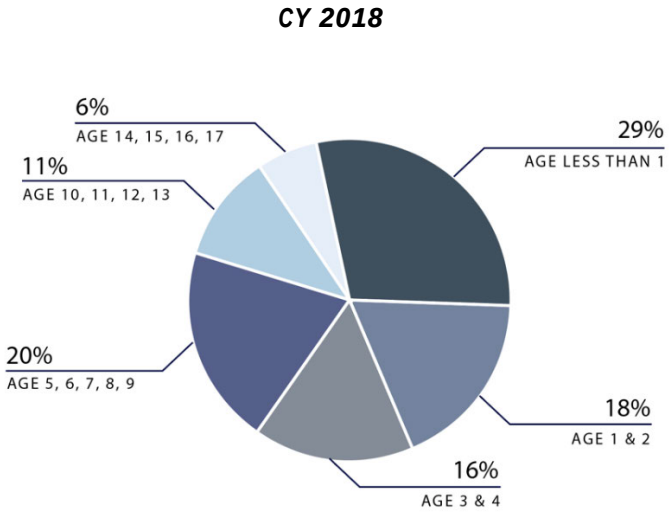


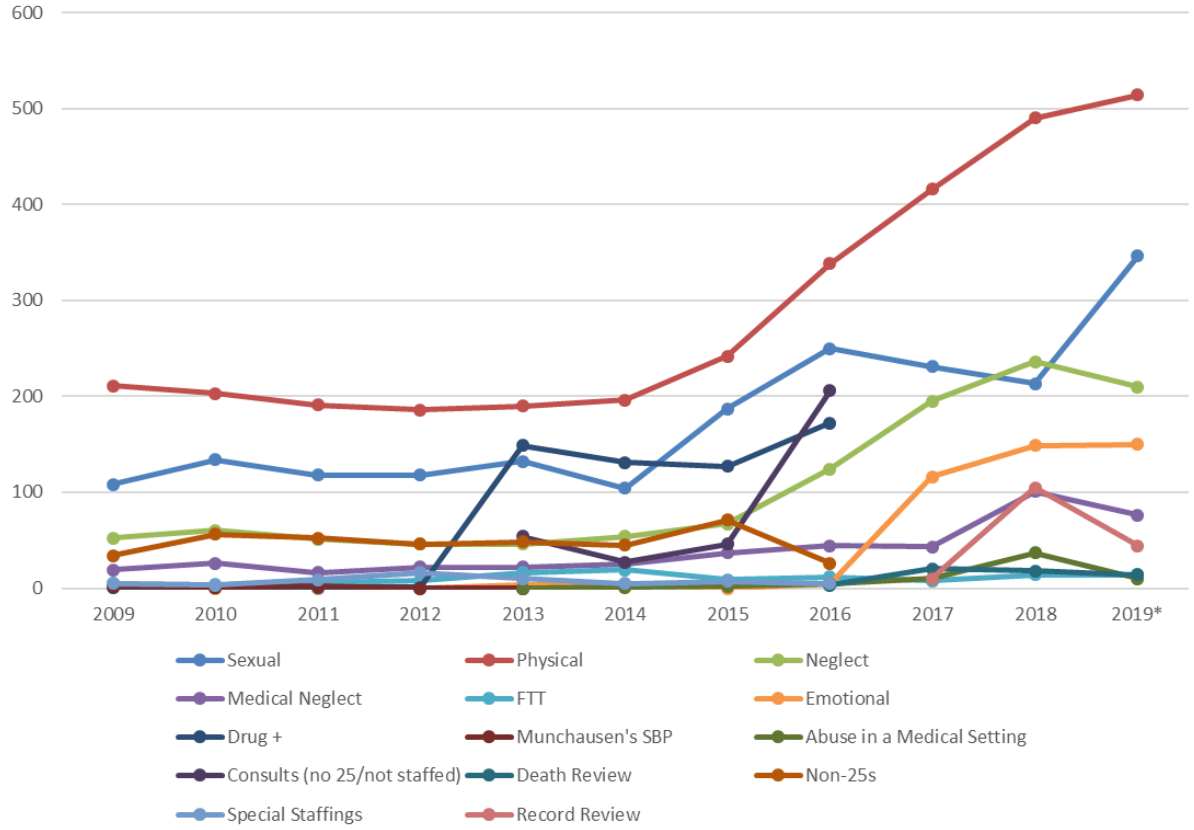
Table 8b. Calendar Year 2018 Breakdown of Patient Ages



In line with national statistics, CPT sees a high percentage of very young patients. As is noted in the chart above, over 60% of CPT's patients are under the age of five, and almost half of those are under one year old.

Table 8c. CPT Investigation Categories

CATEGORIES OF CPT INVESTIGATIO



The previous chart provides information regarding the categories of cases that are reviewed by CPT.

PROGRAM FUNDING AND COST BENEFITS

During fiscal 2019, the funding sources for this organization were as follows:

Table 8d. Fiscal 2019 CPT Funding Sources

Dedicated Funding Source (Appropriations, Revolving, Federal, Grants)	Description of Funding Source	Amount Received in Fiscal Year 2019 ($ per year)
State Appropriations	UHA Passthrough	$371,161
Hospital Support	OUMC Support Dollars	$120,000
Service Revenues	Patients	$117,000
Total		**$608,161**

The financial benefits of this program are primarily derived from the efficient and effective investigation of child abuse cases. The CPT team allows other faculty and physicians to focus on their respective areas of specialty when treating a child who is in their care. CPT takes on not only the initial investigation, but also works hand-in-hand with law enforcement. This coordinated effort and working relationship ensures that other physicians who are not familiar with the process are not required to take time away from their practices to address child abuse-related cases. In addition to the efficiency of this system, the CPT also serves in a consulting and educational capacity with other medical professionals.

CPT ORGANIZATIONAL STRUCTURE

Table 8e. CPT FTEs

Employee Type	FTEs
Physician time	1
PA time	1
Total FTEs	**2**

CPT'S MANAGEMENT STRUCTURE

The CPT team is based out of OU's Pediatrics Department; however, it is an interdisciplinary team of representatives from the Oklahoma City Police Department, Oklahoma County District Attorney's Office, Oklahoma County Child Welfare, and the medical staff at the Children's Hospital. The group is chaired by Dr. John Stuemky, and reporting and management is primarily provided by the Pediatrics Department. This structure is somewhat different than in other hospitals, which generally see the child abuse teams directly supported by the respective hospital.

CPT'S PROGRAM CHALLENGES

The CPT's primary challenge is limited resources. The vast majority of the time a physician from CPT spends investigating, working on a case, and testifying is not recoverable from an insurance group or other party. This disparity between the work performed and the ability to recoup costs has led to challenges in obtaining support and funding from the hospital.

Based on information provided by the CPT, there is a need to add at least one child abuse pediatrician and one social worker to the team. This addition would allow for 24-hour coverage as it would bring the total physician FTEs to a point where one physician could be offsite testifying in a legal action and there would be coverage at the hospital should a suspicious case arrive during that time.

CPT'S SUPPORT OF THE UHA MISSION

The CPT program initiatives align directly with the UHA mission of indigent care, medical education, and medical research.

Indigent Care: The socioeconomic status of patients seen by the CPT workers are representative of the general population seen by the Children's Hospital. The Children's Hospital payor demographics indicate that 2.5% of patients are charity or self-pay with an additional 64.5% being SoonerCare (Medicaid) patients.

Medical Education: The CPT works closely with healthcare professionals around the state providing consulting services, as well as training, to hospitals, medical and nursing staff, law enforcement, and child welfare agencies. In addition, CPT provides educational training to medical students, pediatric residents, and PEM subspecialists, as well as forensic interview training throughout the State.

Medical Research: CPT members participate and promote advancement in the field of child abuse and neglect through scholarly activities. In addition, the team members are a vital resource in tracking and categorizing abuse numbers and types. This information is important for national research and statistical analysis.

CPT KPIs

KPI Number	KPI Description	Relationship to Mission
1. Number of patients seen during fiscal year is at or above prior year levels.	Calculate number of patients seen compared to prior years.	Indigent Care
2. Number of patients assessed that are from outside of Oklahoma City as a percentage of total patients seen is within 5% of the percentage from the prior year.	Number of patients seen from outside Oklahoma City as a percentage of total patients seen.	Indigent Care
3. Improve access to care for Oklahoma families by decreasing wait time. Maintain access within 48 hours of evaluation.	Maintain access within 48 hours of evaluation.	Indigent Care

KPI Number	KPI Description	Relationship to Mission
4. Improve billing accuracy and increase reimbursement rate by 3% from the prior year.	Calculate reimbursement rate compared to prior year.	Indigent Care
5. The number of court appearances will be within 5% of the number made in the prior fiscal year as a percentage of FTEs.	Calculate the number of court appearances compared to the prior year.	Indigent Care
6. Administrative costs (excluding physician salaries) will be less than 5% of the total budget.	Calculate administrative costs (excluding physician salaries) as a % of the total budget.	Cost Effectiveness
7. At least 40% of CPT services will benefit children outside of Oklahoma County.	Calculate number of consultations and court visits outside of Oklahoma County as a % of overall services provided.	Indigent Care/Medical Education
8. Number of residents/students trained during fiscal year is at or above prior year levels.	Calculate number of residents and or students trained during current fiscal year compared to prior year.	Indigent Care/Medical Education
9. CPT will provide four or more training and educational experiences/conferences each year.	Calculate number of training and education conferences conducted by CPT team and compare to benchmark.	Medical Education

OKLAHOMA PRIMARY HEALTHCARE EXTENSION PROGRAM

OSCTR

Oklahoma Shared Clinical & Translational Resources

UNIVERSITY HOSPITALS AUTHORITY PROGRAM UNDERSTANDING DOCUMENTATION

PROGRAM:

Oklahoma Primary Healthcare Extension System (OPHES)

PROGRAM MISSION

The Oklahoma Primary Healthcare Extension System (OPHES) is expected to improve the quality of primary health care available to Oklahomans, reduce the cost of care and health insurance premiums, and improve the health of the population. Greater visibility and alignment of local health improvement initiatives will increase their efficiency and effectiveness and leverage funding from a wider range of sources.

HIGH-LEVEL DESCRIPTION

Since 2012, the funds provided under this program have enabled infrastructure that has been leveraged for more than $20 million in federal research and development funding. In the past year, this includes new partnerships with the Oklahoma Department of Mental Health and Substance Abuse Services for research efforts to disseminate and implement best practices for primary care providers to address the growing opioid abuse epidemic in the State. The essential state funding, provided through UHA, has allowed OPHES to make major strides in achieving its goal of implementing a statewide continuous quality improvement/practice change infrastructure for primary care in Oklahoma.

Leveraging federal research funds, the Oklahoma Clinical and Translational Science Institute (OCTSI) at OU Health Sciences Center (OUHSC) has been able to assemble the Oklahoma Primary Healthcare Improvement Cooperative (OPHIC) to provide academic research capacity to OPHES. While a three-year, $15 million grant from the federal Agency for Healthcare Research and Quality (AHRQ) provided for the staffing and technology infrastructure to implement a statewide study of quality improvement in cardiovascular wellness from 2015 to 2018, UHA funds provided essential funding to buttress the extension system in several areas, among them:

1) *RPR Exchange*: The RPR Exchange is an electronic communication system that provides a feedback loop between research and practice. It systematically collects, archives, and disseminates evidence in response to practice needs, so that practices can apply the best evidence for patient-centered quality care in real time. It was conceptualized, built, and maintained by OPHIC. During the past year, the program moved from conceptualization, to

a bidding-and-award process, to completion of interface development, and—as of this submission—launch with primary care end-users (clinicians and researchers).

2) *PARTNER Advisory Council*: The PARTNER Advisory Council—a 16-member board comprised of community clinicians, community-based advocates, and primary care patients from around the state who work side-by-side with academic researchers—meets quarterly and also for an annual day-long retreat to provide strategic and pragmatic guidance to OPHIC and OPHES. During the past year, twenty individuals, including clinicians, patient, and academic partners, have invested more than 250 contact hours in face-to-face deliberation of strategies for improving primary health care in Oklahoma, and 55 stakeholders have invested 440 contact hours in a World Cafe-style discussion of strategies (1) for support of a state-wide primary healthcare improvement infrastructure, and (2) for innovative ways to encourage public health-clinical care collaborations. The think tank affirmed the efficacy of OU's practice change model and its leadership role in this dissemination and implementation of best practices in primary healthcare improvement.

3) *County Health Improvement Organizations (CHIOs)*: There is a network of community health coalitions that have become certified as CHIOs, indicating their commitment to improving population health in their community (typically a county) by improving the quality of primary healthcare and striving to better integrate community health with clinical care. During the past year, the 25 certified CHIOs maintained their certification standing through a process managed by the Public Health Institute of Oklahoma (PHIO). In addition, approximately $85,000 in federal funding for county-level cardiovascular wellness projects was distributed to CHIOs.

HISTORICAL BACKGROUND

OPHES became operational in 2012 as Oklahoma was one of four lead states in a program sponsored by the AHRQ. Oklahoma's model was to build infrastructure for primary care quality improvements with partners and then share resources for practice transformations with these partners. The program has been very successful sitting within OUHSC, but serving agencies statewide.

NATIONAL STATISTICS

As with many other health care measures, Oklahoma ranks near the bottom of every assessment relating to access to primary care physicians. These rankings are driven by a combination of geography and socioeconomic factors. Oklahoma's rural nature makes attracting and retaining primary care physicians difficult in many parts of the state and the issue is compounded by the economic realities of having a practice in those areas. Oklahoma has one of the lowest rates of insurance coverage in the country and does not provide expanded Medicaid coverage. In addition to the challenge of attracting primary care

physicians to rural areas, there is perhaps an even greater challenge in retaining physicians in those areas. The economics of maintaining a practice in those communities can be challenging, and is often compounded by a sense of isolation from a peer community with which to discuss practice management and emerging health care practices. OPHES's work with the National Area Health Education Centers (AHECs) program serves a vital role in addressing the issues and concerns of primary care physicians in the regions—particularly rural regions—that are otherwise underserved.

OPHES POPULATIONS SERVED

As of June 30, 2019, there were 25 certified CHIO Coalitions, serving 29 counties and representing over 39% of the Oklahoma population (more than 1.6 million people). The number will have expanded to 26 certified coalitions serving 33 counties by late 2019.

According to the Bureau of Health Workforce in 2018, Oklahoma has over 180 primary care Health Professional Shortage Areas (HPSA), as defined by the Centers for Medicare and Medicaid Services (CMS). Oklahoma also has 16 counties that are comprised of 100% rural populations. The CHIO Coalitions currently provide coverage to 50% of those rural counties.

The overall socioeconomic demographics of the counties served by CHIOs are depressed when compared to non-CHIO counties. The median income for CHIO counties is $44,254 compared to the state average of $50,051. The CHIO counties have an average uninsured rate for adults of 21% and an uninsured rate for children of 9%, both of which are above the state-wide average as of 2017. In addition, CHIO-certified counties average 41.4% of all SNAP recipients in Oklahoma.

In CHIO-certified counties, a total 2,993 unique National Provider Index (NPI) numbers for primary care providers have been assigned to clinicians. This number represents 41.5% of the 3,796 numbers that have been issued for Oklahoma in total.

PROGRAM FUNDING AND COST BENEFITS

OPHES is a multi-institutional collaborative effort that involves activities funded from various grants and institutional sources. The following budgets are provided to show CHIO-related activities and funding for positions at PHIO and the TU Institute for Health Care Delivery Sciences (IHCDS), which are the two areas that utilize UHA appropriation funds.

Table 9a. Fiscal 2019 OPHES-PHIO and IHCDS Funding Sources

PHIO and IHCDS Related Activities

Dedicated Funding Source (Appropriations, Revolving, Federal, Grants)	Description of Funding Source	Amount Received in Fiscal Year 2019 ($ per year)
State Appropriations	UHA Passthrough	$78,000
Robert Wood Johnson CHRRM	Award	$5,000
Rural Health Innovation Challenge	Award direct to CHIOs	$6,000
TU- IHCDS	In-kind staff allocation	$15,000
PHIO	In-kind staff allocation	$7,500
Legal Aide Services of OK	Award	$500
Total		**$112,000**

CHIO Related Activities

Table 9b. Fiscal 2019 OPHES-CHIO Funding Sources

Dedicated Funding Source (Appropriations, Revolving, Federal, Grants)	Description of Funding Source	Amount Received in Fiscal Year 2019 ($ per year)
State Appropriations	UHA Passthrough	$70,000
OK Shared Clinical and Translational Resources	Network Development & Consultants	$118,000
EvidenceNOW	RPR Exchange	$100,000
Total		**$288,000**

The returns generated for the State on these relatively modest budget amounts are tremendous. The organization has been actively working with OPHIC to evaluate the results of the various efforts. An example of the evaluation can be seen in the recent completion of a three-year project to assist 250 small to medium-sized Oklahoma primary care practices improve the management of four cardiovascular disease risk factors. The change in performance was measured over time. The study used a stepped-wedge cluster randomized trial design to evaluate the impact of the intervention. The results indicated that practices working with the project saw dramatic improvements in just 12 months of intervention.

The amount of grant funding brought to Oklahoma is perhaps even more dramatic than the practice improvement efforts. OPHES has allowed the Oklahoma Clinical and Translational Science Institute (OCTSI) to leverage state investments with federal investments made by

other Oklahoma-based organizations to secure renewal of a $20 million award from the National Institute of Health, as well as $2.7 million in awards drawn through the Oklahoma Department of Mental Health and Substance Abuse. In addition, the CHIOs have reported receiving almost $1.5 million in funding to support health activities at the community level.

OPHES ORGANIZATIONAL STRUCTURE

The OUHSC houses the Oklahoma Shared Clinical and Translation and Resources (SCTR) group. The leadership for this group is a team of ten individuals with a mixture of MDs and PhDs. This group oversee a variety of educational programs as well as community engagement programs. The OPHES is one of the programs administered by SCTR. The operational elements as well as the network coordination and programming are managed by SCTR.

The OPHES structure is a network in which all 26 CHIO-certified coalitions belong. In addition, OPHES partners with well over a dozen cooperatives, offices, networks, councils, and systems.

The current CHIO locations are as follows:

Table 9c. CHIO Location Listing

Region	CHIO County	Region	CHIO County
NW	Alfalfa	SE	Leflore
SE	Atoka	NW	Logan
NW	Blaine	SE	Marshall
SE	Bryan	SE	McCurtain
NE	Cherokee	NE	Okfuskee
SE	Choctaw	NE	Payne
SE	Coal	SE	Pottawatomie
NE	Creek	SE	Pushmataha
NE	Delaware	NE	Rogers
NW	Garfield	NE	Sequoyah
NW	Grant	SW	Stephens
SW	Jackson	NW	Texas
SW	Jefferson	NE	Tulsa
NW	Kingfisher	NE	Washington
NE	Latimer		

OPHES MANAGEMENT

OPHES is managed within the OUHSC by the SCTR group, but works with CHIOs and other partners all over the State. This organization is unique in that it operates with a very small centralized administrative group, but has a very broad reach across the state through its partnerships and CHIOs.

OPHES CHALLENGES

Fiscal 2020 will see an extremely large number (19) of CHIOs seeking re-certification with OPHES, along with the certification of eight new counties. Based on feedback from previous certification processes, OPHES has determined that certifications and re-certifications going forward will be evaluated against evidenced-based best practices for community organizing. However, even with the updated evaluation process, OPHES will still require additional budget resources in fiscal 2020 in order to successfully complete all the re-certifications and new county certifications that must be done. OPHES would also like to expand its infrastructure and CHIO reach to additional areas of the State. This expansion would be generally targeted to areas that, based on available data, would benefit the most from CHIO operations. This type of expansion would require additional financial resources for staffing and travel expenses.

OPHES'S SUPPORT OF THE UHA MISSION

The OPHES program initiatives align directly with the UHA mission of indigent care, medical education, and medical research.

Indigent Care: The areas targeted by OPHES have a lower average income and higher rates of uninsurance than State-wide averages. Many of these areas also contain HPSAs.

Medical Education: OPHES provides support and practice management education to hundreds of participating primary care practices each year. The valuable medical education imparted to primary care physicians has significant long-term health outcome impacts for the patients in these practices.

Medical Research: The partnership projects undertaken by OPHES are developed and deployed with sophisticated scientific study tools. The results of practice improvement projects are tracked and analyzed to measure effectiveness, learn from mistakes, and share results.

OPHES KPIs

KPI Number	KPI Description	Relationship to Mission
1. The number of PARTNER advisory council participants will be equal to or great than prior year.	The number of PARTNER advisory council participants.	Indigent Care/Medical Education/Medical Research
2. The number of individuals attending the CHIO annual meeting is equal to or greater than the minimum of the number of CHIOs in the State.	Number of individuals attending the annual CHIO meeting.	Indigent Care/Medical Education/Medical Research
3. The number of counties served by certified CHIOs is equal to or greater than the prior year.	Number of counties served by certified CHIOs.	Indigent Care/Medical Education/Medical Research
4. OPHES will assist CHIOs with at least 5 grant/funding requests each year.	Number of funding applications assisted with.	Indigent Care/Medical Education/Medical Research
5. OPHES will increase the number of Quality Improvement (QI) projects undertaken each year.	Number of QI projects compared to prior year.	Indigent Care/Medical Education/Medical Research
6. OPHES will work with partner entities to support a minimum of 4 educational programs per certified CHIO.	Number of educational programs supported each year.	Indigent Care/Medical Education/Medical Research
7. PARTNER Advisory Council will meet at least quarterly.	Number of advisory council meetings each year.	Indigent Care/Medical Education/Medical Research

KPI Number	KPI Description	Relationship to Mission
8. RPR Exchange increases end user usage by 10% from prior year.	Number of end users compared to prior year.	Indigent Care/Medical Education
9. Travel and general expenses are less than 3% of salary costs.	Total travel and general expenses compared to salary costs.	Indigent Care/Medical Education/Medical Research

OKLAHOMA DENTAL FOUNDATION'S MOBILESMILES OKLAHOMA PROGRAM

UNIVERSITY HOSPITALS AUTHORITY PROGRAM UNDERSTANDING DOCUMENTATION

PROGRAM:

Oklahoma Dental Foundation's (ODF) MobileSmiles Oklahoma Program

PROGRAM MISSION

To address Oklahoma's poor health outcomes and lack of oral health opportunities through an exceptional training program.

HIGH-LEVEL DESCRIPTION

MobileSmiles Oklahoma is a program that brings life-changing dental care directly to Oklahomans in urgent need of these services while at the same time provides hands-on education and personal development of young dentists through an externship program. This program is designed to produce excellent dentists while increasing access to dental care for low-income and uninsured Oklahomans who would otherwise go without the dental treatment that is needed. The program results in excellently trained, highly skilled, and compassionate dentists who are more likely to continue to provide charitable dental care throughout their careers.

The use of specially designed mobile dental units allows this program to reach all areas of Oklahoma, and the services provided address the three biggest challenges that are facing citizens in need of dental care: affordability, access, and education.

In addition to the funding needed to provide these services throughout the State, there are two critical components to the success of this program. The first is a collaboration with the OU College of Dentistry that provides a rotational program for fourth-year dental students to be placed with MobileSmiles under the guidance of a preceptor dentist. This program is vital to ensuring the needed staffing levels for the MobileSmiles dental office schedule, which functions five to six days per week. The second is the sponsoring organizations that bring the MobileSmiles unit to a service location. These sponsoring organizations pay a nominal site fee to off-set a small portion of MobileSmiles' costs. The site fee covers approximately a third of the daily costs for MobileSmiles. In the event that a sponsoring organization is not able to pay, State appropriations can be used to help offset these costs. In addition to the site fee, the sponsoring organization is responsible for booking all the MobileSmiles appointments for that site. This arrangement not only ensures buy-in and

good attendance from the selected site, but also greatly reduces the administrative burden on MobileSmiles, thereby allowing the organization to focus on the delivery of care.

HISTORICAL BACKGROUND

The ODF was established in 1959 with a goal of providing oral health education to the public and creating a coordinated system for dentists to volunteer their professional services to Oklahomans in need. In 2006, ODF purchased and brought the first mobile dental clinic to Oklahoma. This mobile capability has transformed the organization's ability to meet with citizens across the state. In 2013, this mobile dental clinic became a partnership program of the ODF and its major funder, the Delta Dental of Oklahoma Foundation. At that time, the name of the program was changed to MobileSmiles Oklahoma. The two foundations now co-manage the program, expanding its reach by combining the strengths and experience of their respective organizations.

NATIONAL STATISTICS

Nationwide, there are many regions that face a shortage in dental care professionals. Oklahoma is no exception to this trend. Of its 77 counties, 63 are currently identified by the Oklahoma Department of Health as a Dental Professional Shortage Area[xxvi]. However, access to care is only a part of the issue driving the lack of good oral health and dental care. According to a recent study by toothbrush.org, one in four Americans does not have dental coverage. Moreover, of the individuals who have not been to a dentist in the past twelve months, two thirds list cost of dental care as the reason they have not been to a dentist.

When looking at the adult population, Oklahoma ranks 45th out of 50 in terms of adults who have had a dental visit in the past year[xxvii]. Providing care and education to this population is key in that it not only saves money by avoiding costly visits to emergency rooms and other healthcare professionals, but it also institutes changes in culture that impact that practices of future generations.

MobileSmiles provides Oklahoma with a vital resource for serving and educating a population that is vulnerable to both access and affordability issues.

MOBILESMILES POPULATIONS SERVED

MobileSmiles has seen an average of over 2,100 patients a year over the past five years. These patients are almost entirely comprised of households earning less than $30,000 per year. The following is a breakdown of patients seen in 2018 by household income:

Table 10a. MobileSmiles Patient Demographics by Income

Household Income	Patient Numbers
Less than $10,000	1,432
$10,000 to $20,000	549
$20,000 to $30,000	190
$30,000 and above	69
Total	2,140
Number of SoonerCare	403
% of SoonerCare	19%

These 2,140 patients were seen across and 206 days of coverage.

As is evident, the patient need for dental services in Oklahoma is significant. Oklahoma has poor rankings with regards to dental care—a problem exacerbated by the fact that the state Medicaid program does not cover dental services beyond basic health services such as extractions. In addition, veterans do not receive dental coverage unless they qualify for full disability. The demand for MobileSmiles' services is so great that partnership organizations are fully responsible for coordinating patient schedules during site visits.

PROGRAM FUNDING AND COST BENEFITS

MobileSmiles is a program within ODF, and, as such, produces consolidated financial statements with ODF. The core funding sources for the ODF's program are private donations, sponsoring partner fees for MobileSmiles, and tuition charged for continuing education programs for dental professionals. A small portion of funding is provided through State appropriations as a pass-through from the UHA and reimbursement for services from SoonerCare.

Table 10b. Fiscal 2019 MobileSmiles Funding Sources

Funding Source (Appropriations, Revolving, Federal, Grants)	Description of Funding Source	Amount Received in Fiscal Year 2019 ($ per year)
State Appropriations	State funding via UHA	$74,232

Sponsor Fees	Fees paid by partnering organizations for site visits	276,577
Funding provided through ODF	ODF funding is primarily from private donations	423,406
Total		**$774,215**

The MobileSmiles financial statements are comingled with ODF. As a result, the amount shown above is the carve out of the amount of funding needed to cover the MobileSmiles operational costs.

Emergency rooms do not typically track or release information on the number of dental-related patients that are seen each year; however, in places where access to care and affordability are significant issues, the result of unresolved dental issues is generally a visit to an emergency room or similar provider resulting in costs to the system that could have been prevented with proper dental care. Moreover, long term health impacts to the patient as a result of delayed dental care provided added costs to the system, as well.

Beyond these savings, MobileSmiles provides immediate, tangible savings to Oklahoma through providing high-quality dental services at low costs. For example, during SFY 2019 MobileSmiles spent just over $774,000 providing Oklahomans with dental services. Reimbursed at commercial rates, however, those same services would have cost almost $1.1 million.

MOBILESMILES ORGANIZATIONAL STRUCTURE

Table 10c. MobileSmiles FTEs

Employee Type	FTEs
Executive Director	1
Program Coordinator	1
Program Assistant	1
Preceptor Dentist	1
Dental Assistants	2
Total FTEs	**6**

The preceptor dentist is responsible for the oversight of all dental services that are provided by the approximately 52 fourth-year dental students who serve as externs for MobileSmiles each year.

PROGRAM CHALLENGES

MobileSmiles would like to expand its operations to provide even greater access to dental care across the State. The funding required for an additional mobile unit will need to be raised as MobileSmiles operates at a loss supported by ODF funds, State appropriations, and private donations.

MOBILESMILES' SUPPORT OF THE UHA MISSION

The MobileSmiles program initiatives align directly with the UHA mission of indigent care and medical education.

Indigent Care: More than 95% of dental patients served by MobileSmiles have an income level of less than $30,000 per year, with more than 61% having an annual income level below $10,000. The state Medicaid program, SoonerCare, is required to provide dental health coverage for children in the program; however, no such requirement exists in the adult population. As a result, the services provided by MobileSmiles to the adult population are provided without cost to the patient receiving services. The estimated SoonerCare value of treatment provided in 2018 was $531,920. If calculated at private practice rates, that value would be well over $1 million.

Medical Education: MobileSmiles plays a vital role in dental education for the State of Oklahoma as it provides critical dental education both in the form of professional training and also directly educating the public. Approximately 52 fourth-year dental students receive around 70 hours of hands-on supervised training and education through the program each year, which translates to more than 2,000 patients being seen each year. This training is not only highly valuable to the students, but it also enables the program to provide consistent services throughout the year. In addition, through the site visits, patients and their families receive exposure and education on the importance of dental hygiene and regular dental visits while dental students receive exposure to diverse patient populations and geographic areas that they might not otherwise have experienced. Moreover, more broadly through ODF, the group provides continuing education programs for dental professionals.

MOBILESMILES KPIs

KPI Number	KPI Description	Relationship to Mission
1. Student participation levels greater than or equal to previous two years.	Number of students participating in the program compared to prior years.	Medical Education

KPI Number	KPI Description	Relationship to Mission
2. 95% of patient income levels are at or below $30,000.	Calculate % of patient income that is at or below $30,000.	Indigent Care
3. Maintain a site visit number that is equal to or greater than prior two years.	Number of site visits made. (Could also be calculated as a ratio of student and volunteer hours.)	Indigent Care
4. At least half of site visits will be outside the OKC metro area.	Track location of site visits and calculate % outside of OKC metro.	Indigent Care/Medical Education
5. At least 15% of patients are covered by SoonerCare.	Calculate the number of patients covered by SoonerCare as a % of total patients.	Indigent Care
6. Conduct a satisfaction survey every year.	Conduct a survey each year and collect results.	Indigent Care/Medical Education.
7. Value of services provided will be at least double the amount paid by the partner agency.	Calculate the value of services provided / the number of site visits. Value per visit should be double the partner fee.	Indigent Care/Cost Effectiveness
8. Ratio of patients per practitioner per day is at or above historic levels.	Calculate the number of patients per day by number of practitioners available.	Indigent Care/Cost Effectiveness
9. Mobile units have relevant safety checks every year.	Produce evidence of safety check.	Indigent Care/Medical Education
10. Administrative costs should not be greater than 25% of the total budget.	Calculate the administrative cost as a % of total budget.	Cost Effectiveness

PROGRAMS MANAGED BY OTHER STATE AGENCIES

UNIVERSITY HOSPITALS AUTHORITY PROGRAM UNDERSTANDING DOCUMENTATION

PROGRAMS:

OHCA Hospital Diagnostic Related Grouping

OHCA Medical Flight Transport Services

OHCA Level 1 Trauma Program Services

OHCA Hospital GME Program Services

PROGRAM INFORMATION AND PROJECT CONSIDERATION

The programs listed in this section are run by OHCA. Funds are initially appropriated to UHA and are then transferred by UHA to OHCA. UHA works closely with OHCA to ensure that funds are provided to OHCA in an appropriate manner; however, OHCA has historically been responsible for developing budget request documentation and for programmatic and spending oversight. As a result of this unique set-up, these programs have not been included in the current programmatic review project.

UNIVERSITY HOSPITALS AUTHORITY
PROGRAM UNDERSTANDING DOCUMENTATION

PROGRAM:

Dental Loan Repayment Program

PROGRAM INFORMATION AND PROJECT CONSIDERATION

The Dental Loan Repayment Program is a program administered by the Oklahoma State Department of Health (OSDH). UHA receives state appropriation dollars for this program and funds are then transferred to OSDH for program administration. UHA currently treats this program similar to those that are administered by OHCA in that budgetary support and administrative oversight is managed by another state agency. As a result, the Dental Loan Repayment Program has not been included in this initial programmatic review.

UNIVERSITY HOSPITALS AUTHORITY PROGRAM UNDERSTANDING DOCUMENTATION

PROGRAM:

OSU Dean's GME Program

PROGRAM INFORMATION AND PROJECT CONSIDERATION

Tables 3a. and 3b. in the OU Dean's GME Program section provides a view of how Dean's GME appropriation funding was passed through UHA to OSU prior to SFY 2020. The view in Table 3c. provides an illustration of how that funding will no longer flow through UHA during SFY 2020. With the change in fund flow structure, UHA will no longer be requesting appropriated dollars on behalf of the OSU Dean's GME program and it will no longer be monitoring the usage of those funds. As such, this document does not contain a programmatic overview of the OSU Dean's GME program.

General note: any uncited data comes directly from the responsible program.

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