

# Going “All In” to Transform the Tulsa Community’s Health and Health Care Workforce

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## Abstract

Oklahoma’s health status ranks among the lowest of the states’, yet many Oklahomans oppose the best-known aspects of federal health reform legislation. To address this situation, the University of Oklahoma College of Medicine’s School of Community Medicine in Tulsa adopted an “all-in,” fully committed approach to transform the Tulsa region’s health care delivery system and health care workforce teaching environment by leading community-wide initiatives that took advantage of lesser-known health reform provisions. Medical school leaders shared a vision of improved

health for the region with a focus on equity in care for underserved populations. They engaged Tulsa stakeholders to implement health system changes to improve care access, quality, and efficiency. A partnership between payers, providers, and health systems transformed primary care practices into patient-centered medical homes (PCMHs) and instituted both community-wide care coordination and a regional health information exchange. To emphasize the importance of these new approaches to improving the health of an entire community, the medical school began

to transform the teaching environment by adding several interdependent experiences. These included an annual interdisciplinary summer institute in which students and faculty from across the university could explore firsthand the social determinants of health as well as student-run PCMH clinics for the uninsured to teach systems-based practice, team-based learning, and health system improvement. The authors share lessons learned from these collaborations. They conclude that working across competitive boundaries and going all in are necessary to improve the health of a community.

**I**n poker, going “all in” means betting everything on one hand of cards. Players go all in when they have a very good hand or when they are so far behind they must risk everything to improve their chance of staying in the game. In this Perspective, we describe how the University of Oklahoma (OU) College of Medicine’s School of Community Medicine went all in on a community-wide effort to improve the Tulsa region’s health and create educational programs to graduate physicians prepared to work effectively in emerging delivery models, provide care for the poor, and continue improving health care delivery systems.

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## Motivation for Change

Oklahoma’s health statistics are poor. A 2006 in-depth analysis of public health data by the OU College of Public Health showed that over the previous 25 years, Oklahoma’s age-adjusted death rate had improved the least of any state. The same analysis revealed a 14-year difference in life expectancy between residents of Tulsa’s predominantly African American north region and its predominantly Caucasian south region. The United Health Foundation<sup>1</sup> ranked Oklahoma 43rd in health and 49th in physicians per capita in 2012, and the Commonwealth Fund<sup>2</sup> ranked the state 50th in health system performance in 2009. Oklahoma’s health care workforce is also strained: 41% of Oklahoma’s physicians are at least 55 years old,<sup>3</sup> and a recent study ranked the state as the most challenged of all states in supplying future primary care.<sup>4</sup>

Although discouraging, Oklahoma’s health rankings provided our medical school with a platform to advocate for dramatic changes in Tulsa’s health care delivery system as well as in the way our medical school trains the next generation of physicians to practice in new care delivery models.

## Opportunities to Ignite Transformation

Oklahoma’s health issues are a microcosm of the nation’s troubles of poor health outcomes, rising health care costs, and lingering inequity in access to care. The American Recovery and Reinvestment Act of 2009<sup>5</sup> (ARRA) and the Patient Protection and Affordable Care Act of 2010<sup>6</sup> (ACA) began a process of reform to address some of these problems. Well-known aspects of the ACA include expanded health care coverage options for individuals and new patient protections within health insurance plans.

There has been resistance to the implementation of these reforms in Oklahoma, however. In 2010, 65% of Oklahomans opposed the ACA’s individual health insurance mandate by voting to amend the state constitution to bar implementing any rule or law that compels a person, employer, or health care provider to participate in a health care system.<sup>7</sup> In 2011, the state declined a \$54 million Early Innovator federal grant to develop the health insurance exchange mandated by ACA.<sup>8</sup> The following year, Oklahoma declined ACA-funded expansion of Medicaid coverage.<sup>9</sup> And in early 2013, Oklahoma House Bill 1021 was introduced

with first-draft language (later removed) that would have made enforcement of the ACA by an agent of the U.S. government a felony and by any public officer of the state a misdemeanor.<sup>10</sup> Efforts to improve health in Oklahoma would therefore need to take place in the absence of support for the best-known aspects of the federal reform legislation.

The ARRA and ACA also contain lesser-known provisions that create opportunities for innovation in health care delivery and payment.<sup>11–13</sup> These are aimed at improving access, quality, and efficiency within the U.S. health care system. ARRA and ACA innovation opportunities include transforming the primary care system to provide care through team-based, patient-centered medical homes (PCMHs); providing financial support for care coordination; promoting use of health information technology to reduce duplication and errors; expanding health care workforce training programs; and establishing new payment models such as bundling of services and shared savings when quality and efficiency standards are achieved. Our medical school's leaders viewed these programs as important opportunities to rapidly transform the Tulsa region's health care system, improve its citizens' health, and shape a new form of medical education.

### Going All In to Transform Tulsa's Health

Motivated by daunting health statistics, we embarked on a journey to transform our region's health care delivery system and create a model patient care and teaching environment for our medical students and residents to prepare them for practice in much different health care delivery and payment systems. We began in early 2008 by changing the name of our medical school branch in Tulsa to the OU College of Medicine's School of Community Medicine to reflect our explicit mission to improve the health of individuals and communities with a focus on the most vulnerable populations.

Starting in early 2008, we set out to use every local media outlet, medical conference, and health policy meeting as an opportunity to educate the community about our region's health disparities. By late 2008, we had garnered strong interest from Tulsa payers and

philanthropists, who provided seed funding for the start-up and operation of health care delivery and payment pilot programs that had a chance of improving on these health disparities in a cost-effective way. With the passage of the ARRA and the ACA in 2009–2010, additional financial support became available for this transformation. One specific provision in the ACA—Health Innovation Zones—highlighted the need for academic health centers to undertake the difficult task of integrating patient care innovations in access, quality, and efficiency with new models for health professions training.<sup>6</sup>

In 2010, we asked our faculty to go all in—in other words, to take advantage of every public and private funding opportunity—to begin the community-wide transformation of clinical and teaching programs. We received innovation grant funding (approaching \$16 million dollars total) from local, state, national, public, and private entities; these grants allowed us to work with payers, providers, and health systems across the region rather than limiting us to initiatives within our academic health center.

In leading these transformation efforts, our medical school played an important organizing role by bringing many different entities together via our unique teaching and clinical service platform. There are three distinct health systems that serve as our teaching hospitals. As well, our faculty and residents staff Federally Qualified Health Centers (FQHCs), area nonprofit agencies, tribal clinics, and county health department services. The extent of our influence was a key factor in our success in synchronizing our initiatives as a community-wide effort. We chose a “proof of concept” path—in which we built successful pilot programs within our medical school's affiliated inpatient and outpatient services and then extended the programs beyond our clinics and teaching hospitals—because previous attempts to create a community-wide health planning and coordination authority failed to gain much attention or enthusiasm.

### Transformation of regional health care delivery

Our all-in approach to transforming our region's health care delivery system involved four interdependent patient

care initiatives: improving patient care and reimbursement in the primary care setting, improving care coordination and reimbursement across settings, creating specialized patient care teams for certain groups of patients, and creating a regional health care information exchange. Below, we describe each of these initiatives.

**Providing better primary care.** A robust health care system must include a sophisticated and well-funded primary care system. We adopted the PCMH—with its proven track record of reduced health care costs and improved clinician and patient satisfaction<sup>12</sup>—as the model we would use to strengthen primary care and as a key teaching platform. Oklahoma's Medicaid program jump-started our PCMH transformation by changing its payment model from capitation to hybrid fee-for-service plus capitation to support our development of team-based care beginning in 2009. Pleased with our early success, Oklahoma Medicaid encouraged adoption of the PCMH model by primary care practices across Oklahoma through increased payments for providers able to meet care standards. In a similar fashion, Blue Cross Blue Shield of Oklahoma initiated supplemental payments for qualified practices providing PCMH care in 2011, with our medical school's clinics serving as the initial program sites.

In 2012, the early results of these OU pilot projects helped us encourage area payers to compete for the Centers for Medicare and Medicaid Services Comprehensive Primary Care (CPC) initiative,<sup>14</sup> a nationwide demonstration project bringing payers and providers together to set common standards for PCMH care and providing additional financial support to staff PCMH teams. The Tulsa region became one of the first seven demonstration sites for the program. Medicaid, Medicare, Blue Cross Blue Shield of Oklahoma, and Community Care—which together cover 80% of the region's population—recruited 68 primary care practices with 280 physicians for the project. Each practice received supplemental payments from this consortium of payers to transform the practice to a PCMH. Early data from OU's PCMH clinics have demonstrated reduced emergency room and hospitalization rates, increased medication adherence, and increased use of generic medications.

**Moving from fragmentation of care to care coordination.** Care coordination entities (CCEs), which use a strong care management system, offer promise as a means of decreasing the fragmentation of care seen across health care delivery systems.<sup>13</sup> Partnering with Oklahoma Medicaid, in 2011 we developed a community-wide program, similar to a CCE, to help PCMH providers within and outside the OU system deliver care coordination services for their high-risk patients. Specialist participation in these care coordination efforts was initially low but improved as the care coordinators demonstrated their ability to work effectively with the most complex patients. Early results have shown a \$22 per patient per month reduction in the overall cost of care for patients in practices participating in this program.

**Providing specialized care teams for high-risk populations.** We noted that there were populations of patients with severe chronic conditions who could not be effectively managed in the generalist PCMH teams. For these patients, we developed specialized care teams with expertise in areas such as severe mental illness, terminal illness, victims of child abuse, homeless teens, and children in foster care. We have noted improved outcomes and reduced service utilization when these high-risk populations receive their care from these focused care teams. For example, our OU Integrated Multidisciplinary Program of Assertive Community Treatment (IMPACT) team provides daily psychiatric and rehabilitative care to individuals in the community with the most severe forms of mental illness. After the OU IMPACT team had provided care for one year, days of psychiatric hospitalization dropped by more than 60%, resulting in an annual savings of approximately \$15,000 per patient.

**Moving from fragmented communication to a regional exchange for health information.** As a community-based medical school branch working across multiple health systems, we recognized the need for the digital exchange of medical information across health system boundaries. We set as our goal the seamless exchange of information wherever the patient received care. An ARRA-supported Beacon Community Program grant<sup>15</sup> facilitated our development of a Tulsa regional health infor-

mation exchange in which more than 100 large and small health care entities are linked to a secure health data warehouse. At the point of care, this exchange generates a summary of the patient's health information from across multiple providers' electronic health record systems. Early data have demonstrated that having point-of-care access to information from other health entities has led clinicians to alter patients' treatment plans about one-third of the time, primarily decreasing duplication of imaging and blood chemistry testing. Further, secure online consultations within the data warehouse system between primary care and specialist physicians have replaced patient–specialist face-to-face visits 35% of the time, generating a \$100 to \$150 savings per online consultation. An early adopter group of physicians using the data warehouse reported being pleased with their ability to provide a more comprehensive level of care for their patients. Those same physicians were able to encourage additional physicians to use the service.

#### **Transformation of workforce education**

As part of going all in, we used our health system innovations to begin the transformation of our teaching environment. To emphasize the importance of these new approaches to improving the health of an entire community, we added the four interdependent experiences described below to our educational programs. At any given time, we have more than 200 faculty, 95 medical students, 75 physician assistant students, and 120 additional professional and graduate school students (including 20–40 nursing students) engaged in various initiatives.

**Summer institutes and academies.** Since 2008, we have conducted an annual week-long interdisciplinary Summer Institute on the “anatomy of our community.” Medical, physician assistant, nursing, social work, pharmacy, allied health, public health, education, human relations, urban design, engineering, and library and information systems students, as well as resident physicians, participate fully throughout the week. The morning sessions, which set the tone for the day, begin with anchoring lectures and discussions on poverty, the social determinants of health, and health systems led by a content expert. Later

in the morning, interdisciplinary teams of students and faculty leaders explore the social determinants of health by interviewing patients living in poverty and leaders of health, social, and public service agencies. These interviews take faculty and students to sections of Tulsa that many of them have never visited before. Students and faculty also experience living in poverty through a simulation, which is particularly powerful in linking a general understanding of poverty with the specific daily decisions that those living in poverty must make. In the afternoons, teams work on prototypes of solutions that might bring better health and health care to the community. Over the years, several prototypes, including the community-wide health information exchange, have been implemented.

After the Summer Institute, faculty and students participate separately in academies (one day per month over a two-year period) in which they learn the application of community medicine, such as the practice of team-based care to improve access for underserved populations, health management of populations, and use of medical informatics. We have found that neither the concept nor the practice of improving the health of entire communities comes easily, but these initiatives start the learning process.

**Student-led free clinics.** Since 2003, our health professions students have conducted free evening clinics to serve the uninsured. Recognizing the educational value of these clinics for learning about community health improvement, we organized faculty supervision and began to use continuous improvement of the clinics to teach students system-based practice. By 2007, we concluded that the acute care walk-in clinics, although necessary, were insufficient to provide patients with ongoing care and to teach students the principles of proactive, coordinated care. Therefore, we created longitudinal PCMH-model clinics where interdisciplinary teams of medical, physician assistant, nursing, pharmacy, and social work students and faculty provide continuing care for panels of patients with multiple chronic illnesses. The carefully selected cadre of faculty receive teaching credit for supervising students in these acute and chronic care free clinics.



These clinics give students opportunities to see firsthand the effects of years of delayed care for those without health insurance. Students learn the need to steward limited health care resources and the importance of interdisciplinary teamwork to improve access to continuing care. It is too early to tell, however, whether using this PCMH experience as a teaching platform will significantly increase medical students' choice of primary care as their specialty.

#### **New health professions training partners.**

In our community-wide health care change efforts, we have found the Tulsa FQHCs to be willing partners in delivering care to the poor and in expanding our primary care teaching programs. In 2011, we established a new relationship with a Tulsa-based FQHC for additional teaching programs in underserved areas. We received grant funding, under the ACA's Teaching Health Center initiative,<sup>16</sup> for more physician assistant student-led PCMH clinic sites and expansion of our family medicine residency training at FQHC sites in the part of our community with the most need for increased access to care and physicians committed to serving this population.

**Medical informatics.** The regional health information exchange provides our medical students and resident physicians with the opportunity to regularly obtain information from multiple sites for use in their patients' care. Additionally, they learn to use analytic tools to identify populations of patients in greatest need and track their team's clinical performance measures.

#### **Reflections on Our All-In Approach**

In developing and implementing the eight initiatives detailed above, we have learned lessons that we believe may be helpful to other medical schools and communities. Although our health system transformations are recent, and their full impact on access, efficiency, and health professions education is yet to be determined, the early data and reports have been encouraging. Below, we share our reflections.

#### **Initial momentum for big change**

Frequent discussion of our state's dismal health rankings served to motivate

medical school leaders and private donors to commit to change early in the process. After more than three years of reaching out to the public through media stories and community education sessions, we began to see business and government leaders appreciate the impact of these health disparities on the vibrancy of our region. These community-wide discussions highlighted the moral and economic imperatives for change and helped us begin the process of dramatic system change despite resistance in the state to certain aspects of the ACA.

#### **Collaboration across the community**

The discussions described above led us to the realization that we must work across competitive boundaries to achieve significant change. The importance of collaborating across the community became more apparent when we discovered that approximately 25% of area patients receive care from health care systems without affiliations with our medical school. In these collaborations, our medical school played the roles of diplomat, grant writer, and facilitator.

#### **Few left behind**

As noted above, Tulsa's regional health information exchange involves more than 100 distinct health care entities, and the CPC project involves 68 different primary care practices. Once a new initiative reached a critical level of participation across the community, we began to see that few health care entities wanted to be left out, which resulted in even greater participation.

#### **Funder enthusiasm**

After success with pilot initiatives, particularly the new primary care models and student-led clinics, we observed that philanthropic foundations, granting agencies, and payers were enthusiastic to invest further in Tulsa's health care transformation. Success with the care coordination and vulnerable patient care team pilot projects similarly provided payers and philanthropic organizations with the confidence to invest on a larger scale. Community-wide grants provided important start-up funding for innovations across our region.

#### **Strong interest in new models of care**

We have found that our health professions students are enthusiastic about learning these new care models,

even at the first-year level. In addition, on recent Association of American Medical Colleges Graduation Questionnaires, our medical students have reported increased exposure to public health, health systems, and health economics.

#### **New teamwork and quality improvement skills**

In some instances, student-led free clinics are a supplemental and voluntary component of students' educational experience. We have learned that our student-led free clinics can provide students with a core educational experience in quality improvement, systems-based practice, and health care delivery efficiency. Within our student-led PCMH clinics, we have observed highly functional interdisciplinary teamwork, sophisticated analysis of health information for quality improvement efforts, and attention to health outcomes measurement for patient panels. The patient care outcomes for our student-led clinics mirror the outcomes of other OU clinics in Tulsa.

#### **Strong interest in care for the poor**

Our students have demonstrated keen interest in improving health care for the poor. The clinical environment in which they learn has pushed them to develop pragmatic treatment plans that pay attention to cost of medications, laboratory use, and transportation. Early results from an ongoing longitudinal study of the impact of the curriculum on altruism indicate that students in our new teaching environment have maintained high levels of altruism throughout their medical school experience.

#### **All-in approach trumps incremental change**

Adopting an incremental approach to implementing system-wide changes would have been less taxing on our leadership and staff than our all-in approach, which required them to keep current enterprises going during the transformation. Yet, it was important to go all in because each initiative depended on the others for success. For example, implementation of the PCMH model would have been difficult without the care coordination and health information exchange components. In addition, once demonstrated, these initiatives encouraged our major payers to also go all in in the development of new payment models to sustain the transformation.

## In Sum

Market- and ACA-driven reform of health care is under way across the United States. Our experience demonstrates that communities with health and health care deficiencies can take advantage of this time of great change to advance community-wide health system transformations. Because the initiatives described in this article are new to our medical school and to the region, we have limited outcomes to share at this time. We plan to evaluate and report longer-term measures regarding workforce, health system, and ultimately health improvements.

Our all-in approach has had initial success in transforming our community-wide health care delivery system and our training environment. Our medical school played the important roles of motivator for change, diplomat in negotiations among health care organizations, and facilitator of collaboration. If our approach could be generalized, it might be possible for these transformations to occur at the community level throughout the United States. We believe workforce training transformations can and should be paired with these health system changes.

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