

## A Rural Alabama Patient Centered Medical Home Center for Education and Research

We propose to create an infrastructure that will develop and implement a sustainable interdisciplinary teaching, research, and service model to address health care, education, economic, and other critical issues that impact rural Alabama (referred to as the Center). This activity will initially include elements from The University of Alabama and the University of South Alabama but will be expanded to develop training for learners across the health care delivery spectrum. These learners will include novice learners such as medical students and nursing students but this activity will rapidly expand to include experienced providers who want to transform the practice into one that delivers care in a Patient Centered Primary Care model. In addition, when operational we anticipate development of unique provider types (such as lay health navigators) who can provide interpretation and system navigation to local residents. The model will initially draw on the strengths of both Universities to tackle these complex issues. The effort will represent a regional commitment by The University of Alabama and the University of South Alabama to use their vast, multi-disciplinary resources in partnership with rural communities in an effort to improve conditions there and, ultimately, to impact the entire state. The Center will model care and educate learners seeking or engaged in health care in the manner of care known as Patient Centered Primary Care and the center itself will seek designation as an NCQA certified Level 3 Medical Home or equivalent.

**Background:** The Patient Centered Primary Care model is a proven concept. Where implemented (information from the Patient Centered Primary Care Collaborative accessible at [www.pcpcc.net](http://www.pcpcc.net)), quality of care, patient experiences, care coordination, and access are demonstrably better. Investments to strengthen primary care result within a relatively short time in reductions in emergency department visits and inpatient hospitalizations that produce savings in total costs. These savings at a minimum offset the new investments in primary care in a cost-neutral manner, and in many cases appear to produce a reduction in total costs per patient. Group Health Cooperative of Puget Sound, for example, has demonstrated a 29% reduction in ER visits and 11% reduction in ambulatory sensitive care admissions. Additional investment in primary care of \$16 per patient per year was associated with offsetting cost reductions, with the net result being no overall increase in total costs for pilot clinic patients (the total net cost trend was a savings of \$17 per patient per year, which was not statistically significant). Unpublished data from the 24 month evaluation reportedly show a statistically significant decrease in total costs. Community Care of North Carolina in a state wide Medicaid demonstration project demonstrated a 40% decrease in hospitalizations for asthma and 16% lower ER visit rate; total savings to the Medicaid and SCHIP programs are calculated to be \$135 million for TANF-linked populations and \$400 million for the aged, blind and disabled population. A trial of care delivery organized in this manner in lower Alabama would allow us to demonstrate the value and potential cost savings to policy makers at the state level. Reduction in cost is critical to the survival of Medicaid in this state and additionally approximately 25% of the population is Medicaid eligible in this region.

One thing that has become clear is that to deliver Patient Centered Primary Care, the practice must be transformed into a Patient Centered Medical Home - a model that employs the knowledge of professionals in medicine, nursing, nutrition, social work, health education, exercise physiology and health care financing while emphasizing wellness, prevention, and chronic disease management. Care delivered from a "Medical Home" is distinct from care delivered in the current primary care model.

Current medical practice is reactive, with the physician's office reacting to patients who present for care. The physician relies on memory to assure that the correct care is occurring and there is no measurement to quantify whether high quality and safe care is being delivered. For many preventive services the patient is expected to seek out his or her own care. Care delivered by a Medical Home is characterized by a healing relationship that is not limited to the patient in the exam room, a whole person orientation, a family and community context, and a comprehensive approach. These characteristics dictate that the care be delivered in a culture of quality with improvement being a daily activity both in attitude as well as in measurement and that systems to assure excellent care are in place. In addition, the patient experience must be conducive to healing. The practice must be accessible both in person and electronically. Care must be personalized to reflect the individual patient's needs. A PCMH creates the opportunity and support for patients to engage in their own care and in shared decision-making. The practice builds in same day access and 24/7 coverage. The practice innovates with new approaches to engage patients such as group visits and on-line services. Patients get access, communication, education and care coordination when they want it, i.e. patients are more satisfied with their care. The practice must be organized such that everyone is working to the top of his or her ability and license. All of this is tied together with an Information Technology backbone that facilitates automated processes, connectivity, point-of-care decision support and just-in-time data analysis.

This model of care is emerging as a well regarded answer to the problem of delivery of high quality primary health care in many parts of the country. The concept has been endorsed in a Joint Statement issued by the American Academy of Family Physicians, the American Osteopathic Association, the American College of Physicians, and the American Academy of Pediatrics (see Appendix for full details of the statement). The Alabama Rural Health Association has identified development of a system to deliver high quality primary care as essential to improving the health of Alabama's rural citizens, drawing on resources such as the Governor's Black Belt Action Commission, the University of Alabama Rural Health Programs, and the University of South Alabama own rural research efforts, as well as other programs dedicated to improving rural health in Alabama to make this determination. Evidence suggests that there are limited opportunities to expose learners to this type of practice in rural Alabama. In addition, there are still questions as to whether his type of care delivery would benefit those living in Alabama's Black Belt. This demonstration would allow us to develop the resource to provide education using these concepts as well as identify the viability of this type of care within the region.

As we have seen from the current healthcare debate, there will not be a single answer to the problem of providing quality healthcare to Alabamians. Once we are underway, we hope to engage the Alabama Department of Public Health, the Alabama Quality Assurance Foundation (Alabama's Quality Improvement Organization), BlueCross and BlueShield of Alabama, and the state's Medicaid program and develop partnerships and as well as use this experience to assist with guidance in future policy development. Our long-range outcomes are to achieve measurable changes in health care in south Alabama and expand these improvements to the entire state. We will develop a series of short-term measures which will demonstrate progress as it occurs. The Patient Centered Primary Care model dictates that care is delivered in an organized manner with an emphasis on quality and safety. Medical Home designation would require recognition from an outside agency, such as NCQA, acknowledging that certain quality processes were in place as well as safeguards. One of the intermediate progress markers would be becoming designated as an NCQA Level 3 Medical Home (information available on certification at [www.ncqa.org](http://www.ncqa.org) and information on the transformation process is available at [www.transformed.com](http://www.transformed.com)).

The proposed inter-professional Medical Home would be implemented in a community that is accessible both from the University of South Alabama as well as The University of Alabama, College of Community Health Sciences. This would put the project in upper Clarke County and in close proximity to Marengo and Wilcox County. This is an area of profound need, with the average life expectancy a full 2 years below the United States as a whole and people dying of diseases such as diabetes, breast cancer, and cervical cancer (all Ambulatory Care Sensitive Conditions) at rates 25% to 50% higher than Alabama as a whole. Additionally, there appears to be significant bypass of existing resources with 38% of births within Clarke County occurring outside of the county despite seven providers who deliver obstetrical services. This project would apply a nationally recognized inter-professional mechanism to provide individualized care while impacting the health of an entire community. In addition to providing state-of-the-art services to promote wellness, prevention, and chronic disease management, this approach would also provide an appropriate mechanism for better access to and utilization of more advanced secondary and tertiary care available in urban communities and at large medical centers. Patients with diabetes or high blood pressure, for example, would be evaluated and managed by a team of health care professionals that would not only evaluate and prescribe medication but ensure that patients and their families are educated about the condition and its complications, as well as the range of available interventions.

In addition, given the rapid advances being made in care delivery and the need for the primary care workforce to transform the care delivery system from one of acute care delivery to a system where acute, chronic, preventive, and restorative care can be delivered and/or coordinated from the Patient Centered Medical Home, there is a need for a Center to provide education and training to providers currently in practice as well as learners who have yet to enter practice. These learners must be able to deliver care “to the limits of their license” if we are going to be able to provide care to rural Alabama. Such a Center would provide neophyte learners an opportunity to observe and learn practice techniques in an area where advanced imaging technology requires effort on the part of the patient to access, and would allow them to see modeling by mentors on the use of patient education, community resources, and population health. Experienced practitioners could learn how to reinvigorate their practices through the use of group office visits, care huddles, patient registries, and planned care activities. Allied personnel could learn and participate in care using community resources and advanced patient education techniques.

The same spirit of cooperation critical to the successful participation of both Universities in this endeavor would be engaged to develop partnerships with other educational entities as well as communities. These partnerships will be critical as we also strive to develop new learning communities and train the personnel needed to deliver care in this manner. In addition, the community orientation dictates solutions that are community-wide, such as walking trails and ensuring that healthy food options are available, in an effort to further support a model of wellness and prevention. Opportunities for education and research would also be provided to faculty, professional students, graduate students, and undergraduate students. The inter-professional medical home model would be developed in such a way that it could be replicated in other rural communities and applied to other critical issues, such as improving education and local economic conditions. Opportunities for Community Based Participatory Research activities would be enhanced as a consequence of a long-term commitment such as this.

**Resources needed** The key components to the success of this endeavor are learners,

faculty/providers, engaged community members, and evaluators/investigators.

**Learners:** Both physician and non-physician health care providers who have the requisite background (formative experience in rural Alabama, desire to return to Alabama to practice in rural, primary care setting) and meet academic requirements for their respective field should be recruited and engaged in this project. The University of Alabama Rural Scholars Program has demonstrated success and should be replicated at South Alabama with both sets of learners obtaining significant clinical experience (8 weeks between 1<sup>st</sup> and 2<sup>nd</sup> year, 8-12 weeks in 3<sup>rd</sup> year, and 8 weeks in 4<sup>th</sup> year. It may be possible to develop curriculum in the first two years that can be delivered to the site as well. In addition, family medicine residents from UA Tuscaloosa and USA should rotate through for significant time early in their residency. Other clinical providers (Physician Assistant, Doctor of Nursing Practice, Pharmacy Doctor) should have significant clinical experience as well. The Center should provide learning opportunities for ancillary personnel who are seeking employment in rural Alabama in a Patient Centered Primary Care setting either through a certificate program or documented hours. Practicing providers who desire Continuing Medical Education or Continuing Education Units around the Patient Centered Medical Home with experiential training at the center should be afforded that opportunity as well. The Center should be equipped with learning resources equivalent to that of Harrison School of Pharmacy and with both USA and UA, Tuscaloosa equipped to provide on-site instruction initially

**Faculty/Provider:** There will need to be an executive director on-site as well as instructional faculty at the rural Patient Centered Medical Home. Initially we will need to improve and increase instruction on the key concepts in Mobile and Tuscaloosa. This will help to maintain interest and engagement of the learners when they are receiving instruction in other required topics. In addition, opportunities to provide multidisciplinary instruction to interested pre-professionals, allied professionals and interested learners enrolled in the program will arise. I would anticipate 1-3 physicians at 50% non-clinical time, 1-3 mid level providers at the same and 1 Pharmacy Doctor on site. It is likely that we will be able to take an existing practice and convert it into a PCMH model practice, saving some recruitment costs. We would initially anticipate 2 faculty physicians each in Tuscaloosa and Mobile with their efforts improving instruction in family medicine for all students, not just those enrolled in the program. In addition, we would propose a 50% faculty person in the College of Nursing at USA and UA, Tuscaloosa and a similar position in the PA school. I also anticipate a resurgence of telemedicine/telehealth but hope that that care will be funded separately.

**Engaged community members:** For the community to see this as an effort that is improving their access as well as the quality of health care services, it is important that resources be available rapidly that demonstrate a commitment to this model of care as well as allow the providers to practice outside of the exam room walls. The offices in this area are not designed for learners. They do not include space for education. The exam rooms dominate the physical space whereas in the new model there needs to be areas for group office visits, patient education, telemedicine, and a center for tracking and providing care proactively to those patients with chronic illness. We believe that there will need to be a rather substantial infrastructure investment up-front for this activity to be effective

**Health Planning:** It is clear that location of physicians to the Black Belt is going to be

insufficient to alter health outcomes in this region. The Patient Centered Primary Care model is dependent on the presence of many types of providers who deliver complementary types of care to patients. The Black Belt, because of the indigenous poverty and mistrust of health care providers, offers a difficult population with which to work to develop healthy behaviors. The effects of obesity and poor health choices compound the problems. It is clear that different types of care providers will need to work in collaboration with physicians to improve health outcomes and the optimum mix has not been determined. The Alabama Rural Health Association is uniquely positioned to explore optimal health care provider workforce needs. The Association's board has representation from all of the major licensed providers, the state planning and payment infrastructure, the private payors, and consumers. The Association is taking on an increasing role in championing healthcare improvement in rural Alabama, recently developing a series of issue briefs on physician manpower and behavioral health care delivery in rural Alabama

**Evaluators/Investigators:** It is imperative that we document the effect of this type of care including potential cost savings, barriers to delivery of effective care, and unanticipated consequences. In addition, we are proposing a type of care delivery that, if successful, will result in a regionalization of certain services leading to potential problems such as in transportation that must be addressed. Lastly, there is significant "bypass" that will only abate when the citizens of the area are convinced that the quality is equal or better than that of more distant care. We propose a collaborative activity where both USA and UA, Tuscaloosa develop resources within their respective schools to perform this type of evaluation.

**Initial Budget:** We are requesting \$1,000,000 which will be used to initiate development of this activity. The total development budget is estimated at \$11,000,000. The initial money will be distributed in the following manner:

- 1) \$250,000 to UA Tuscaloosa for recruitment of 2 faculty members for the Department of Family Medicine who are knowledgeable regarding Patient Centered Primary Care and rural care delivery
- 2) \$250,000 to University of South Alabama for recruitment of 2 faculty members for the Department of Family Medicine who are knowledgeable regarding Patient Centered Primary Care and rural care delivery
- 3) \$350,000 towards to development of Patient Centered Primary Care activities in the area of Clarke, Wilcox, and Marengo Counties. This activity will include (but not be limited to) recruitment and employment of an Executive Director, recruitment of provider resources to begin practice transformation, employment of a practice transformation consultant, and strategic planning activities to develop further funding and expansion into to accommodate other learners.
- 4) \$150,000 to the Alabama Rural Health Association for supportive activities including the following: (1) conduct strategic planning sessions which will bring together stakeholders from provider groups, consumer groups, advocacy groups, and other entities that can possibly benefit from the Patient Centered Primary Care model; (2) develop guidance for Alabama professional schools and policy makers regarding optimum mix of health care professionals for delivering care to rural Alabamians; (3) determine if the unique needs of

the Black Belt warrant development of unique patient care personnel such as lay health navigators to overcome mistrust and facilitate community involvement; (4) manage activities required for the distribution of funds provided through this opportunity; and (5) other activities that will be required through this project. Knowledge gained through strategic planning will be used to inform further development of the Center regarding educational and outreach focus.

**Year 2 Budget Request:** We will be requesting additional money for the following year with an amount contingent on activities at the state and national level. These resources will be requested for the following activities:

- 1) Continued development, recruitment, and retention of instructional personnel at UA Tuscaloosa, University of South Alabama and the rural Center (TBD)
- 2) Development of unique provider educational activities to meet the special health needs of the population as determined through the strategic planning sessions
- 3) Construction of the Center
- 4) Development of resources necessary for evaluation

**Sustainability:** It appears very likely that regardless of what the ultimate shape care delivery reform takes, the care outlined here will be an integral part of the delivery structure. As such, it is almost certain that this type of care will be reimbursed at a higher rate, sought after by learners, and valued by payers. Additionally, it is likely that the method of payment for education for those willing to commit to a career in primary care will likely change as well. This, by establishing this Center at this time, we will be anticipating changes and be ready for these changes as they happen.

In addition, the University of South Alabama and University of Alabama, Tuscaloosa will work to create an organizational infrastructure which will allow for all interested organizations to participate in this Center. The strategic planning process will allow us to identify such a sustainable infrastructure although one such entity (the Dauphin Island Sealab) is functional and will likely serve as an organizational model