PROGRESS AND PROMISE:
Profiles in Interprofessional Health Training to Deliver Patient-Centered Primary Care
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About the Patient-Centered Primary Care Collaborative (PCPCC)

Founded in 2006, the PCPCC is dedicated to advancing an effective and efficient health care system built on a strong foundation of primary care and the patient-centered medical home (PCMH). The PCPCC achieves its mission through the work of its five Stakeholder Centers, which convene experts and thought leaders focused on key issues to drive health system transformation.

Sponsors

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For more information, visit www.pcpcc.org.
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The Institute for Healthcare Improvement’s Triple Aim of better health, better care, and lower costs promotes goals that are helping to drive significant reform in health care. As a central strategy to realize the Triple Aim, many health care providers are migrating to a team-based model of patient-centered primary care embodied in the principles of the patient-centered medical home (PCMH), as set forth by the Agency for Healthcare Research and Quality (AHRQ) and adapted by the Patient-Centered Primary Care Collaborative (PCPCC):

**PATIENT-CENTERED:** A partnership among practitioners, patients, and their families ensures that decisions respect patients’ wants, needs, and preferences, and that patients have the education and support they need to make decisions and participate in their own care, as well as participate in quality improvement efforts.

**COMPREHENSIVE:** A team of care providers is wholly accountable for a patient’s physical and mental health care needs, including prevention and wellness, acute care, and chronic care.

**COORDINATED:** Care is organized across all elements of the broader health care system, including specialty care, hospitals, home health care, community services and supports.

**ACCESSIBLE:** Patients are able to access services with shorter waiting times, “after hours” care, 24/7 electronic or telephone access, and strong communication through health IT innovations.

**COMMITTED TO QUALITY AND SAFETY:** Clinicians and staff enhance quality improvement to ensure that patients and families make informed decisions about their health.

Interprofessional training and education embraces key components of these principles. To achieve the Triple Aim, however, “educational reform must incorporate practice redesign, and delivery system change must include a central educational mission if we are to achieve enduring transformation.” In pursuit of that goal, institutions across the country have developed innovative programs to train students and residents in diverse professions to learn and work together—with more than 130 programs captured in PCPCC’s Patient-Centered Primary Care Training Database, www.pcpcc.org/training.

In this report, we highlight seven exemplars: programs that develop the competencies required for work in advanced models of primary care. The professions they touch include medicine, nursing, pharmacy, psychology, social work, and more. Despite the differences in their target populations and design, these successful initiatives share many of these common elements:

- Focus on patient-centered care
- Cultural sensitivity and community focus
- Continuous quality improvement
- Development of effective team practice
- Dispersed team leadership
- Integration of behavioral health

“When students train side by side, all voices in the room are valued.”

Eve Adams, PhD, NMSU
It is also recognized that many of these shared elements originate from the early work of the Interprofessional Education Collaborative.3

In the summer of 2014, the program directors generously shared with us their learning journeys, some of the barriers they have encountered and challenges they have overcome. Outdated funding models that do not support PCMH care delivery are a particular challenge. Technology and population-based care offer tantalizing opportunities that programs still struggle to realize, while standardized and meaningful metrics to measure outcomes seem to be an elusive moving target. It is para-

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mount that training teams work together with patients and their families as active participants, yet our system of health professions schools have been slow to embrace this philosophy and develop a culture that stresses their importance.⁴

Although the programs vary in terms of their replicability and scalability, there are learning takeaways from each that will be useful to anyone working to design and implement an interprofessional, PCMH-based training initiative. The case-study programs are at the vanguard of new approaches to practice: They advance the most fundamental principles of primary care in a PCMH. Their trainees will be exceptionally well-positioned to work and lead in the future.

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<th>Team-Based Primary Care Competencies Trained</th>
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The Institute for Healthcare Improvement’s Triple Aim of better health, better care, and lower costs promotes goals that are helping to drive significant reform in health care. As a central strategy to realize the Triple Aim, many health care providers are migrating to a team-based model of patient-centered primary care as described by the patient-centered medical home (PCMH).

Adapted from the Agency for Healthcare Research and Quality (AHRQ) definition, the Patient-Centered Primary Care Collaborative (PCPCC) describes the medical home as an approach to the delivery of primary care that is:

**PATIENT-CENTERED:** A partnership among practitioners, patients, and their families ensures that decisions respect patients’ wants, needs, and preferences, and that patients have the education and support they need to make decisions and participate in their own care as well as participate in quality improvement efforts.

**COMPREHENSIVE:** A team of care providers is wholly accountable for a patient’s physical and mental health care needs, including prevention and wellness, acute care, and chronic care.

**COORDINATED:** Care is organized across all elements of the broader health care system, including specialty care, hospitals, home health care, community services and supports.

**ACCESSIBLE:** Patients are able to access services with shorter waiting times, “after hours” care, 24/7 electronic or telephone access, and strong communication through health IT innovations.

**COMMITTED TO QUALITY AND SAFETY:** Clinicians and staff enhance quality improvement to ensure that patients and families make informed decisions about their health.

As health care strives to realize the full potential of the PCMH, we recognize the need to redesign clinical practice around such principles as team-based care, improved compassionate partnerships with patients and families, and coordination of care across the medical neighborhood. Preparing future health professionals who are skilled in related competencies and can work effectively in inter-

**About the Interprofessional Education Collaborative (IPEC)**

In 2009 six national education associations of schools of the health professions formed a collaborative to promote and encourage constituent efforts that would advance substantive interprofessional learning experiences to help prepare future health professionals for enhanced team-based care of patients and improved population health outcomes. These organizations that represent higher education in allopathic and osteopathic medicine, dentistry, nursing, pharmacy, and public health would come to create core competencies for interprofessional collaborative practice that can guide curricula development at all health professions schools.
professional teams is vital for moving that redesign forward, as outlined by the Interprofessional Education Collaborative (IPEC).

Following a national survey and a multi-stakeholder, multi-disciplinary review process in the spring of 2013, the PCPCC worked with partnering organizations to identify over 100 innovative health professional training programs across the country that embrace the core competencies of a medical home model of care. These 100 programs (plus 30 recently added programs) are summarized in PCPCC’s Patient-Centered Primary Care Training Program Database, www.pcpcc.org/training.

To understand the educational practices these programs comprise, PCPCC invited representatives from professional organizations representing multiple health care disciplines to collaborate in identifying exemplary programs in the

PROFILE LEGEND:
Professions Trained by Programs

- NURSING
- NURSE PRACTITIONERS
- INTERNAL MEDICINE
- PHYSICIANS ASSISTANT
- FAMILY MEDICINE
- PEDIATRICS
- PSYCHOLOGY
- PHARMACY
- SOCIAL WORK
- MEDICAL ASSISTANT
- PATIENT EDUCATOR
- PUBLIC HEALTH
- DIETICIANS/NUTRITION

“We’re trying to implement a true team model that breaks down silos between different types of health care. The goal is a fully implemented PCMH, a model where people can come to work and feel like they really can take good care of their patients today, and know that they’re there for each other and the patients.”

Susan Snyder, MD, Harbor-UCLA
database (see Acknowledgements on page 2). We sought to identify programs that leverage effective strategies to develop the competencies required for work in advanced models of primary care. An emphasis was placed on having broad representation across the health professions in the selected sites. The reviewers selected seven programs that are profiled in this report. Interviews with program directors were conducted during the summer and fall of 2014.

Each program’s strategies are unique and distinctive. The Harbor–UCLA Family Medicine and Northwestern McGaw Family Medicine Residency programs, for example, focus on training future physicians for work in interprofessional settings. Programs at New Mexico State University, the University of Oklahoma, and the University of Texas at Austin have found effective strategies to train and integrate professionals in behavioral health, pharmacy, psychology, social work, and other related professions to work in interprofessional teams in clinical primary care settings. The Center of Excellence in Primary Care Education at the San Francisco Veterans Affairs Medical Center and a three-state collaborative in the Southeast have developed sophisticated, comprehensive approaches to making interprofessional teams work in practice while developing strategies for training future health care professionals.

Viewed together, these programs are evidence of progress and promise. They demonstrate that considerable progress has been made in developing effective patient-centered, team-based training for the delivery of primary care. Through hard work, dedicated professionals at diverse institutions have shown that it is possible to design, implement, test, and refine a wholly new paradigm in training for primary care that engages trainees and professionals from many professions in health care collaboratively in the context of the patient-centered medical home.

At the same time, the fact that many of these programs continue to evolve—including ones that were started a decade ago or more—suggests the promise

>>REPORT HIGHLIGHT: Training for Teams

The profiles in this report include powerful practical strategies for developing interprofessional teams in PCMH settings, including:

**ALTERNATE TURNS AS TEAM LEADERS.** In clinical settings, many programs intentionally alternate leaders on teams, often based on a patient’s need for a given health profession’s expertise at a given time. That process helps break down traditional hierarchies, enriches team dynamics, and gives students valuable real-life practice.

**INVEST TIME IN DEVELOPING TEAM DYNAMICS.** Recognizing that teams work better if they truly coalesce as a group, some programs invest time in building the team itself. Program leaders at the San Francisco VAMC, for example, have published extensive guidelines on strategies that maximize the power of the team huddle.

**CONSIDER VARYING COMMUNICATION PREFERENCES.** Working to improve interprofessional communication, NMSU taught behavioral health students, who tended toward longer narratives, to consolidate their notes into 30-second summaries that were more digestible for physicians accustomed to succinct opinions.

“I cannot express enough the difference it makes when you can start interprofessional training from the beginning.”
Daubney Harper, PhD, New Mexico State University
»REPORT HIGHLIGHT: Competencies

In 2011, PCPCC’s Education and Training Task Force identified 16 interprofessional training competencies that are critical for preparing health professionals to practice in team-based, coordinated care models such as patient-centered medical homes. These competencies frame the range of expectations that the training programs that PCPCC surveyed—and the seven programs selected for profiles—are expected to strive to meet.

**PATIENT-CENTERED CARE**
- Development of effective, caring relationships with patients
- Patient-centered care planning, including collaborative decision-making and patient self-management
- Cultural sensitivity and competence in culturally appropriate practice
- Advocacy for patient-centered integrated care
- Care coordination for comprehensive care of patient and family in the community
- Health information technology, including e-communications with patients and other providers

**ACCESSIBLE CARE**
- Promotion of appropriate access to care (group appointments, open scheduling)

**COMPREHENSIVE CARE**
- Assessment of biopsychosocial needs across the lifespan
- Population-based approaches to health care delivery
- Risk identification

**COORDINATED CARE**
- Interprofessionalism and interdisciplinary team collaboration
- Team leadership
- Business models for patient-centered integrated care

of greater reforms to come. In some respects, the development and acceptance of innovative new models for preparing health professionals to collaborate in interprofessional teams to deliver primary care in the patient-centered medical home is in its early stages. Including patients and families as part of this interprofessional collaborative training is certainly needed. As we continue to more fully understand the inherent value of this model, and as program leaders refine their approaches to making this model work in practice, we will undoubtedly see significant refinements and further innovations in the years ahead.
INTERPROFESSIONAL HEALTH TRAINING TO DELIVER PATIENT-CENTERED PRIMARY CARE

This report features profiles of seven exemplary programs that train medical students, residents, nurse practitioners, nurses, physician assistants, social workers, psychologists, and other health professionals for work in primary care patient-centered medical homes. The programs were selected by a panel of advisers to PCPCC representing many different professions. These programs meet the majority of the five PCMH domains, offer clinically-based training, and reflect a diverse range in terms of program type, location, and professions included. The following programs are profiled in this publication:

- New Mexico State University, Counseling Psychology PhD Program—Integrated Primary Care Behavioral Health Training on the U.S.–Mexico Border
- University of Texas at Austin, School of Social Work—Integrated Behavioral Health Scholars Program
- University of Oklahoma, College of Pharmacy—Integrating Pharmacists into the Delivery of Primary Care
- San Francisco Veterans Affairs Medical Center—Center of Excellence in Primary Care Education/Education in Patient-Aligned Care Teams
- North Carolina, South Carolina, and Virginia—I3 Population Health Collaborative
- Northwestern McGaw Family Medicine Residency—Teaching Health Center: Team-Based Care Curriculum
- Harbor–UCLA Family Medicine—Transforming Primary Care and Faculty Development Fellowship.

The profiles reveal in depth how each program approaches training team-oriented and patient-focused primary care providers. In our review, we sought to better understand the structure, goals, and results each program has achieved. We sought insights into which competencies are being promoted and how the programs help students learn those competencies. We also sought to understand the barriers the programs face and the steps leaders took to overcome them. Each program is unique, but they share commonalities that suggest advice and lessons learned for other educators seeking to design programs with similar goals.

THE VANGUARD OF NEW APPROACHES TO PRACTICE

The programs highlighted in this report are the vanguard of important and, indeed, imperative changes in health care delivery. The profiles reveal what it actually looks like to undertake the complex and challenging work of implementing interprofessional training into the patient-centered medical home and other advanced primary care models. They constitute a real-world laboratory where innovative practices are being invented, tested, and refined.

Considered as a body of evidence, the profiles describe practices that advance the most fundamental principles of primary care in a PCMH—comprehensive, coordinated, accessible, and patient-centered care, practiced in a context of community-based health care, with an ongoing commitment to quality and safety. The trainees engaged in such programs are learning a new vocabulary and mode of operation for health care practice that positions them exceptionally well to work and lead in a future where the PCMH will increasingly be the norm. Moreover, the programs are also
educating the many participants about these new models for health care delivery, and demonstrating to their host institutions the future potential of health care.

Viewed through a broad lens, the programs highlighted in this report provide tangible evidence of success in the effort to transform primary care at the practice level. The fact that all the programs are in a continual state of improvement underscores that these efforts are still developing. They demonstrate how elements of the practices that can transform primary care at this level are coming into focus.

We already know that change is needed, and the PCPCC anticipates that primary care practices will ultimately embrace implementation of the medical home model, foundational to true accountable care and health system transformation. Now we are beginning to codify a body of knowledge about how change can be undertaken. The programs highlighted here map a variety of ways by which we can reach that goal.

“We believe that we are teaching a whole new generation of trainees to think this way, to know that in order to provide better care it can’t be done in a silo as a solo practitioner, that you really need partners, and that you need to make systems change to do what’s right for the patient. I think that’s what we’re all working so hard for.”

Rebecca Shunk, MD, San Francisco VA Center of Excellence
New Mexico State University
Counseling Psychology PhD Program—Integrated Primary Care Behavioral Health Training on the U.S.–Mexico Border

**AT A GLANCE**

**LOCATION:** Las Cruces, NM

**PROVIDER/PRACTICE TYPE:** Family Medicine Residency, Primary Care Facility, Health Professions Shortage Area

**PATIENT POPULATION:** Predominantly Hispanic and uninsured

**TOTAL PROGRAM GRADUATES (2004-2014):**

- **RESIDENTS:** 66 Family Medicine
- **DOCTORAL STUDENTS:** 65 Counseling Psychology, 13 Nursing
- **MASTERS STUDENTS:** 33 Social Work, 10 Public Health, 4 Pharmacy

**PROGRAM REPRESENTATIVES:** Eve M. Adams, PhD, MA, Associate Professor, Director of Training, Counseling & Educational Psychology; Daubney Harper, PhD, MA, Faculty, Counseling & Educational Psychology

**SUMMARY:** New Mexico State University (NMSU) offers a collaborative training program in integrated primary care behavioral health, targeted to provide effective treatment of chronic illnesses on the U.S.–Mexico border. Its goal is to increase the number of trainees in counseling psychology, mental health counseling, nursing, social work, public health, and family medicine who have been taught how to engage in interprofessional collaboration and to provide integrative primary care training opportunities in a medically underserved community.

THE NMSU INITIATIVE involves the doctoral program in counseling psychology and the masters of social work, public health, and doctorate in nursing programs at New Mexico State University; the Southern New Mexico Family Medicine Residency Program, and a federally qualified health center, La Clinica de Familia with ten community-based clinics in Doña Ana County. Doña Ana County is a designated Health Professional Shortage Area (HPSA).

To prepare care providers to address some of the urgent health care needs in this community, the program delivers a curriculum, supported by a Title VII grant
from the Health Resources and Services Administration’s (HRSA), Bureau of Health Workforce that focuses on training in integrated primary care behavioral health and interprofessional training to educate providers to treat patients with chronic illnesses more effectively, better utilize other health care disciplines, and provide better access to mental health care. The program has five primary objectives:

- Provide didactic instruction in integrated, interdisciplinary health care
- Provide didactic instruction in culturally responsive health care
- Enhance trainees’ self-efficacy regarding their clinical skills in multidisciplinary primary care settings.
• Provide training in bilingual counseling
• Expand the training in integrated health care offered by New Mexico State University.

The collaborative training occurs in interrelated components, including:

• New Mexico State University’s Counseling Psychology Program partnered with the Department of Nursing on a three-year HRSA grant focused on building the Interprofessional Education Collaborative (IPEC) competencies with geriatric care as a vehicle for training. These departments also partnered with the Southern New Mexico Family Medicine Residency program to build a one-week, 40-hour training called the Geriatric Immersion. The goal of this training was to teach doctoral level counseling psychology students, medical residents, doctoral nursing students, and pharmacy residents how to identify, value, and utilize the roles of other health care professionals in the treatment of the geriatric population.

• A three-credit course in primary care psychology that uses a problem-based approach for case study analysis and instills appreciation of mind–body health issues and multidisciplinary collaboration. This course is open to counseling psychology, public health, nursing, and social work students, and has course components involving the Family Medicine Residency Program.

• A 12-hour-per-week behavioral health practicum in which trainees collaborate with residents at a family medicine residency clinic and deliver services at other primary care settings.

Several counties in New Mexico have been designated as Health Professional Shortage Areas for mental health. Having won a Graduate Psychology Education grant from HRSA in 2004, NMSU began placing graduate students in psychology and social work in the Southern New Mexico Family Medicine Residency Program, a three-year residency training clinic within the Family Medicine Center at Memorial Medical Center in Las Cruces, where they learn about culturally competent primary-care psychology and the importance of the mind–body connection. In this clinic-based practicum in behavioral health, they collaborate with residents in family medicine in delivering free mental health care.

In 2012, the NMSU entered into a contractual arrangement with La Clinica De Familia (LCDF), a Federally Qualified Health Center with ten local sites, to create a clinical training program and jointly fund two split positions. This arrangement established new opportunities for graduate students to help deliver behavioral health services at LCDF as part of a practicum experience.

The practicum trains students for work on interprofessional teams and participation in discussions and decision-making about patients with physicians, psychologists, nurses, nurse practitioners, pharmacists, and behavioral health specialists.

“In the clinics, we’re really working towards team-based interventions. Students have to understand their distinct role and how it can be really helpful to the group, and they have to practice some important communication skills to be heard in an effective way.”

Daubney Harper, PhD
In the program’s geriatric immersion component, for example, teams include doctoral students in psychology, pharmacy, and nursing as well as medical residents. Assigned to different tasks, the teams see patients together, go on rounds, visit nursing homes, and participate in didactic training. From the beginning, they are taught and shown the importance of interprofessional collaboration. Similar learning takes place in the primary care psychology course, which is open to students in nursing, social work, and public health as well as psychology.

The program is incorporating more training based on IPEC competencies, into coursework and the geriatric immersion, and in the clinic itself. Discussions about interprofessional work help teams understand that all members share responsibility for the patient, and build a comfort level that enables team leadership to shift depending on patient needs. In practice, team leadership may shift to behavioral health care professionals, such as psychologists or social workers, if anxiety and depression are affecting a patient’s ability to manage their diabetes, and then shift again, when appropriate, to pharmacy, the patient educator, or the physician. Program participants practice communicating amongst clinicians within team huddles, face-to-face consultations, and messaging via electronic health records.

Students learn about the differences of mental health provider roles in health care including differences between behavioral health consultants and mental health specialists. The primary care psychology course teaches more about the behavioral health consultant’s role and how to be utilized in health care settings. Program faculty provide training to health care professionals outside of the practicum to educate about integrated behavioral health and working within interprofessional teams. Ongoing learning takes place through constant communication within the clinics as trainees and professionals from multiple professions discuss patient cases.

Some psychology trainees reported initially that the primary care environment was too chaotic and not as person-centered as they might prefer; the more introverted students had to learn how to blend into the fast pace of a busy clinic and make their voices heard. Some also had to learn how to deliver succinct summaries of patient observations to busy physicians.

The program works to help students understand differences between individual- and population-based approaches. To engage and fully utilize students in busy clinics as behavioral health consultants, the program includes role-playing and opportunities for shadowing professionals; and works to educate medical professionals about the benefits that students from behavioral health professions bring to patient care.

All of the doctoral students are required to do field practice in the health care clinics. Field experiences deliver important lessons about community medicine and emphasize the role of promotoras, community members who receive specialized training to provide basic health education. A vital bridge between patients and health care, promotoras meet patients in their homes, identify resources for them, and connect them with the care they need. Students are encouraged
to meet regularly with promotoras to discuss cases, make referrals, and assess patients. Those conversations help students learn to think about barriers that patients and their communities face, including sometimes such basics as a lack of electricity or running water.

A holistic view of patients—taking into account the patient’s physical, psychological, and social needs while understanding health disparity, socio-political influences, and historical trauma in the border-crossing region—are major foci of the program. Students must tune into patients’ spiritual needs, given the importance of religion and spirituality in the patient community, valuing them as partners in the care team. Students are engaged in thinking about the biopsychosocial and spiritual components of care and how to draw out relevant biopsychosocial information during patient interviews. Mindfulness is also taught to help students experience the mind–body connection. This improves their capacity for providing a brief mindful intervention to patients or staff, which is highly useful for numerous medical conditions.

Since the program started, an increasing number of students have pursued internships in integrated care and primary care rotations in such settings as VA and public hospitals and prisons. Pre- and post-data show significant growth in students’ self-efficacy and self-confidence in providing behavioral health services in medical settings.
University of Texas at Austin
School of Social Work—Integrated Behavioral Health Scholars Program

**AT A GLANCE**

**LOCATION:** Austin, TX

**FIELD PLACEMENTS:** Primarily FQHC clinic sites embedded with community-based behavioral health and developmental disabilities services.

**PATIENTS:** The FQHC served approximately 62,000 individuals last year at 24 locations throughout Travis County. The community-based behavioral health and developmental disabilities service providers served approximately 26,000 individuals last year at 46 locations throughout Travis County.

**PATIENT POPULATION:** Adults with severe and persistent mental illness and/or intellectual and developmental disabilities with acute and chronic medical needs; homeless individuals with co-occurring disorders and chronic illnesses; Spanish-speaking low-income families with medical and behavioral health needs.

**PROGRAM PARTICIPANTS:** 19 Master of Science in Social Work students.

**PROGRAM REPRESENTATIVES:** Luis H. Zayas, PhD, MS, MA, Dean and Robert Lee Sutherland Chair in Mental Health and Social Policy; Barbara L. Jones, PhD, MSW, Associate Professor, Assistant Dean for Health Affairs, and Co-Director of the Institute for Grief, Loss, and Family Survival, School of Social Work; Robin Smith, MSSW, LCSW, Clinical Assistant Professor and Integrated Behavioral Health Scholars Program Coordinator, School of Social Work; Diana M. DiNitto, PhD, MSW, Cullen Trust Centennial Professor in Alcohol Studies and Education and Distinguished Teaching Professor, School of Social Work.

**SUMMARY:** The Integrated Behavioral Health Scholars Program at the University of Texas at Austin School of Social Work provides stipends to master’s students to study culturally competent behavioral health interventions for use in integrated health care settings that provide care to underserved populations. In addition to the MSSW clinical curriculum, students take courses in interprofessional education and motivational interviewing. They also complete field placements in community-based clinics that utilize an integrated health care approach and provide the students an opportunity to work as members of interdisciplinary teams.

IN 2012, THE SCHOOL OF SOCIAL WORK at the University of Texas at Austin was awarded a Title VII HRSA grant to create the Integrated Behavioral Health (IBH) Scholars Program. The program was developed to educate bilingual, racially
diverse, and culturally competent behavioral health practitioners to deliver evidence-based behavioral interventions in primary care. Priority is given to bilingual, bicultural, and African-American candidates and to candidates who are veterans, active-duty military or family members of veterans/active-duty military. Students train to work with high-need/high-demand patient populations, especially Latinos, veterans, and active duty military personnel and their families. Graduates will be prepared to educate future social work students to provide integrated behavioral health care.
Over three years, nineteen MSSW students who demonstrate a commitment to work in integrated behavioral health care will be selected to receive stipends. IBH scholars are either one-year master’s students who have earned a bachelor’s degree in social work and have been granted advanced standing, or they are students in the school’s standard two-year master’s in social work program. All scholars are on the school’s clinical track. Participants are trained to become proficient in utilizing interventions that target behaviors most closely associated with chronic disease, morbidity, and mortality among underserved populations, including smoking, poor diet, lack of physical activity, tobacco and alcohol-exposed pregnancies, and sexually transmitted infections, including HIV. In addition, students gain experience and expertise using evidence-based interventions for a variety of mental health issues—such as anxiety and depression—that are often associated with health risk behaviors and chronic illness.

IBH scholars take an interprofessional education course called “Transformative Teams,” where they work in teams with students from nursing, medicine, pharmacy, and psychology and are taught by faculty from these disciplines as well as social work. As part of that experience, the interdisciplinary student teams learn effective communication skills. With a community partner, such as a children’s hospital or health care delivery system, the teams develop a project for positive impact on the community. Projects can be research, intervention, or education-based. Students present their work at a symposium open to the medical and academic community. Sample topics include childhood obesity, quality of health care, breast cancer, and reducing violence.

IBH scholars also take a course in motivational interviewing (MI). This course is complemented by an intensive two-day motivational interviewing training that includes clinical staff from IBH field agencies, as well as faculty and graduate students from other schools at UT Austin. Students also participate in standardized patient training to further enhance their motivational interviewing skills, and receive individualized coaching from MI specialists.

Key to the program are field internships in integrated health care settings, which begin immediately upon program enrollment. Advanced-standing students in the one-year IBHS program complete a 520-hour field placement at an integrated health care site. Two-year IBH scholars complete two field placements for a total of 1,000 hours of training in integrated behavioral health.

The school has partnered with Austin Travis County Integral Care and CommUnityCare, an FQHC, to serve as the primary field placement for IBH scholars. For their second field placement, two-year students may choose to intern at Lone Star Circle of Care (another local FQHC) or the Central Texas Veterans Administration. A goal of the program is to create new integrated behavioral health field placements in the Central Texas area. This year, the Mallory Clinic, an integrated health care provider for uninsured Latinos in South Austin, was added to the list of clinics that provide training to IBH scholars.
IBH scholars work in these primary care settings as fully integrated members of teams that include doctors, nurses, nutritionists, pharmacists, limited licensed professional counselors, promotoras, and other professionals. Each scholar receives ongoing supervision from a bilingual clinical social worker specially trained in behavioral health methods. Throughout the program, scholars receive support from a designated faculty liaison, a bilingual IBH mentor, and other faculty with experience in integrated behavioral health.

Through this iterative process, students work directly with underserved patients in primary care clinics; are fully integrated into the health care teams; participate in training workshops, standardized patient labs, and coaching activities with experts in brief behavioral interventions; and participate in team-based learning in the classroom with medical, nursing, and pharmacy students. The training, in other words, is designed to prepare students to function comfortably and expertly as part of the emerging model of health care teams.

The program is now in its second year, with seven scholars currently in IBH field placements. Two students completed the program in August of 2014; and four will complete the program this May. Program leaders are seeking funding to expand the effort to more one-year and two-year master’s students.
University of Oklahoma
College of Pharmacy—
Integrating Pharmacists into the Delivery of Primary Care

**AT A GLANCE**

**LOCATION:** Oklahoma City, OK

**PROVIDER/PRACTICE TYPE:** Family Medical Center, Tier 3 PCMH (designated by state Medicaid), Primary Care Practice

**PATIENTS:** 500 patients per month for pharmacotherapy services

**PATIENT POPULATION:** 60% Medicaid, 15% Medicare

**PATIENT CHARACTERISTICS:** Many indigent, minority, and/or foreign

**PROGRAM PARTICIPANTS:** 75 total to date (pharmacy + additional IPE students)

**PROGRAM REPRESENTATIVE:** Mark L. Britton, PharmD, MDiv, CDE, BC-ADM, Sr. Associate Dean for Academic Affairs & Professional Programs and Professor, Department of Pharmacy: Clinical and Administrative Sciences; Becky Armor, PharmD, CDE, BCACP, Associate Professor and Residency Program Director, PGY2 Ambulatory Care; Nancy Letassy, PharmD, CDE, Professor and Director of Operations, Pharmacotherapy Clinic

**SUMMARY:** The Department of Family and Preventive Medicine at the University of Oklahoma College of Medicine partnered with the College of Pharmacy to create a unique pharmacist-managed pharmacotherapy service. Faculty pharmacists, pharmacy students and residents, dieticians, and community health workers collaboratively support the PCMH model by focusing on the management of diabetes and anti-coagulation patients referred by family medicine physicians. The program serves a highly diverse patient population, most of whom are from ethnic groups that are traditionally at high risk for diabetes. The program emphasizes the importance of learning what patients need in the context of their overall care. One key measure of the program’s success is improved outcomes among patients with diabetes.

PROACTIVE CHRONIC CARE MANAGEMENT as part of primary care is an integral component of the patient-centered medical home. Since 1995, the College of Pharmacy at the University of Oklahoma has taken the lead in creating, managing, and sustaining a broadly interprofessional team that provides a range of preventive, education, and monitoring services to patients with diabetes and thrombotic disorders. Patients with diabetes averaged a 3.1 percent reduction in mean glycosylated hemoglobin values, and improvement of health outcomes for
some 600 patients was estimated to have saved nearly a quarter of a million dollars, even after program expenses.

The University’s Family Medicine Center, a primary care practice, was designated as a Tier 3 patient-centered medical home (PCMH) site by Oklahoma’s Medicaid program in 2009. At this PCMH, pharmacists collaborate with physicians and are fully integrated into the delivery of primary care. Within that model, a wide range of learners are afforded opportunities for training, including pharmacy students, dietetic students at the master’s level, and social work students at the master’s level, as well as physicians, family medicine residents, and third- and fourth-year medical students. The program was prompted by a
desire to better serve patients with diabetes and thrombotic disorders, complex conditions that require considerable practitioner time to assess and treat. Its core values include responsibility to patients; responsibility to other providers; accountability for services provided; quality of care; compassionate care; and communication with peers, supervisors, and patients. It teaches learners to elicit patient needs and connect the patient with the discipline most applicable to meeting their care needs.

At orientation, participants are asked to put aside their preconceptions to appreciate the philosophy and style of care that has been developed within the unit, starting with a focus on patients, who define their own health care needs as true partners of the team. Students learn how to work in teams, participating in learning activities that align with the Interprofessional Education Collaborative’s (IPEC) core competencies.

Students are encouraged to reflect on their day-to-day experiences in journals. Each Friday, teams talk about patient cases and how the team is functioning, as well as common themes abstracted from journal entries. Learners discuss what they discovered about themselves as professionals, others, working together, and conflicts felt in order to start breaking down barriers built into the system. The ongoing dialogue among learners, including frank discussions about personal limitations and problems they face in the clinic, also helps instill a sense of teamwork. End-of-day check-out sessions create opportunities for different members of the team to assume leadership for follow-up on critical tasks.

While the program focuses on several competencies critical for working in a PCMH, the program pays special attention to the delivery of culturally appropriate and compassionate care. Encouraging students to understand the values and culture of their patients, the program has benefited from having students from diverse cultural backgrounds who can help teach colleagues about cultural differences. A campus-wide initiative reinforces IPEC competencies with a curriculum for senior-level students who practice working together in teams in a faith-based free clinic off-campus.

Starting with a relatively small number of patients, the program has grown and is widely recognized as an effective and identifiable means of delivery of integrated services for patients with more complex health care needs. The program has demonstrated that pharmacists are skilled health care providers, capable of providing effective and reimbursable services directly to patients that can save money for health care systems and improve quality of care for patients.

Among other objective measures, the program is able to document a 10-year record of significant improvements in quality measures such as eye screening,

“I have observed over time that most learners, whatever their level, are self-conscious about their limitations. They really do want to lean on somebody, and they need permission to work with others as opposed to being the self-sufficient one.”

Mark Britton, PharmD
vaccination rates, aspirin use, foot screening, blood pressure goals, and lipid goals. Clinically, the program has seen improvements on several measures resulting from a change to team-based care delivery. These improvements have been translated from diabetes care to systems level, which has improved overall quality of care at the University's Family Medicine Center.
San Francisco Veterans Affairs Medical Center
Center of Excellence in Primary Care Education/Education in Patient-Aligned Care Teams

AT A GLANCE

LOCATION: San Francisco, CA

PROVIDER/PRACTICE TYPE: VA Medical Center, Center of Excellence in Primary Care Education

PATIENTS: 13,900 patients/year; 58,800 visits/year (in clinics with trainees)

PATIENT POPULATION: Veterans (all ages and socioeconomic backgrounds)

PROGRAM PARTICIPANTS: Core Trainees: 183 total (since program inception); Year 1 (2011-2012) = 41; Year 2 (2012-2013) = 65; Year 3 (2013-2014) = 68; Year 4 (2014-2015) = 65. Additional Interprofessional Participants: 49

PROGRAM REPRESENTATIVES: Terry Keene, DNP, FNP-BC, ARNP, Nurse Practitioner Co-Director, VA Center of Excellence in Primary Care Education at San Francisco VA Medical Center; Assistant Clinical Professor, School of Nursing, University of California San Francisco; Bridget O’Brien, PhD, Director of Evaluation, SFVA Center of Excellence for Primary Care Education; Associate Professor, Medicine, University of California San Francisco Office of Research & Development in Medical Education; Rebecca Shunk, MD, Physician Co-Director, Center of Excellence in Primary Care Education, Health Sciences Associate Clinical Professor, University of California San Francisco.

SUMMARY: The San Francisco VA Center of Excellence in Primary Care Education/Education in Patient Aligned Care Teams (EdPACT) program has developed an interprofessional model of primary care that integrates learners into teams while targeting the needs of the VA’s most vulnerable populations. Team huddles are central to interprofessional care at the SFVA COE and educators there have developed an extensive interprofessional huddle coaching program. The EdPACT program is respected across the hospital as a leader in modeling a patient-centered, team-based approach in all settings. Following its initial grant funding, the program was deemed sufficiently successful and important to be integrated into SFVAMC’s general budget.
The VA is transforming its primary care delivery system to improve coordination and continuity of care through patient-aligned care teams, its version of the patient-centered medical home (PCMH). As part of this transformation, the VA's Office of Academic Affiliations has funded five Centers of Excellence in Primary Care Education to develop new educational models for residents and nurse practitioner students.

As one of the five centers, San Francisco has demonstrated considerable success through its program, the San Francisco VA Center of Excellence in Primary Care Education (COEPCE)/Education in Patient Aligned Care Teams (EdPACT), or SFVA
COE. Awarded a five-year, $5 million grant by the VA in 2011, the SFVA COE is a collaborative effort with the schools of medicine and nursing at the University of California San Francisco (UCSF). Both the San Francisco VA Medical Center and UCSF provide institutional support and donate staff efforts for the initiative. The program is set in the primary care clinic at the main VA hospital and two community-based outpatient clinics.

The SFVA COE’s mission is to develop and implement interprofessional, team-based, patient-centered care in which teams of health care providers, staff, and trainees collaborate consistently in all aspects of patient care. The program’s primary goals are to teach and implement teambuilding and interprofessional collaboration, patient-centered communication, shared decision-making, sustained relationships across all aspects of health care delivery, and performance improvement. To that end, the partnership requires collaboration and teamwork among physicians and nursing faculty, associated health care providers, internal medicine residents, adult nurse practitioner (NP) students, NP post-graduate residents,

**PCMH-Aligned Educational Domains**

**INTERPROFESSIONAL COLLABORATION (CARE IS TEAM-BASED, EFFICIENT AND COORDINATED; TRAINEES PRACTICE COLLABORATIVELY):** Didactics and interactive small-group seminars address such topics as the roles of team members in huddles, conflict resolution, and handoff communication; and are complemented and reinforced by practices like huddling, huddle coaching, formative self-assessments by teams, feedback from preceptors, and time for reflection and team-building.

**PATIENT-CENTERED COMMUNICATION AND SHARED DECISION-MAKING (CARE IS ALIGNED WITH VALUES, PREFERENCES AND CULTURAL PERSPECTIVE OF THE PATIENT; EMPHASIZING BEHAVIOR MODIFICATION/SELF-MANAGEMENT):** Didactics emphasize patient—provider communication, agenda setting, communicating empathy, and partnering with patients. They are complemented and reinforced by practices that might include motivational interviewing, warm handoffs, and collaborative patient visits, as well as reflection that might include review of videotaped patient encounters.

**SUSTAINED RELATIONSHIPS (CURRICULA ACCOMMODATE CONTINUITY OF CARE AND PROMOTE LONGITUDINAL LEARNING RELATIONSHIPS):** Building relationships both between patients and providers and between trainees and preceptors, didactics on such topics as telephone medicine, home care, and palliative care are complemented and reinforced by practices such as telephone clinics, secure messaging with patients, home visits, and reflection activities.

**PERFORMANCE IMPROVEMENT (TRAINEES LEARN TO OPTIMIZE THE HEALTH OF POPULATIONS AND UNDERSTAND THE METHODOLOGY OF PROCESS AND OUTCOME ASSESSMENT AND CONTINUOUS QUALITY IMPROVEMENT):** Trainees who once learned and implemented performance improvement projects in discipline-based silos now collaborate on interdisciplinary, team-based, interprofessional performance improvement training and projects, informed by didactics on such topics as performance improvement tools and processes. Interprofessional quality improvement projects have focused on such topics as outreach programs for patients with diabetes and improvement of the medication renewal process.
and associated health trainees. The program’s design calls for NP trainees to partner with physician trainees in internal medicine—an integral manifestation of the COE’s core mission.

Leadership is shared or distributed within teams; members are taught that they and their colleagues bring different goals to the team and must take turns leading the team from their unique perspective and roles, based on the topic being discussed. Recognizing that authority in medical settings often defaults to the physician, and wanting to change that dynamic, SFVA COE leaders moved the meeting place for teams from the physicians’ clinic room to the NPs’ clinic room, signaling changing assumptions about hierarchy. In a similarly important practice, medical attending physicians and NP attendings precept physician residents and NP trainees in the same room.

The program focuses on experiential workplace learning, which includes clinical contact with patients. Trainees videotape some of their clinical encounters and use self-reflection processes to evaluate themselves for effectiveness of interpersonal communication. The videos are reviewed as a group and feedback is provided. Some learning also comes from quality improvement projects that might draw on global data from the VA as well as clinical and patient satisfaction data.

Trainee huddles have been embedded in the clinic and include the “teamlet” as well as trainees from other professions including clinical pharmacy, social work, psychology, and psychiatry. These clinicians join internal medicine and NP trainees, along with their mentors and teachers, to coordinate care for VA patients. A social work trainee, for example, participates in the huddle and might accompany trainees on home visits. Similarly, a psychology trainee might offer a perspective about a proposed course of treatment for a patient from a behavioral health standpoint.

Educators at the SFVA COE have developed an extensive interprofessional huddle coaching program that helps members understand each other’s respective roles and learn skills they can apply to effective teamwork. Huddle coaches support both trainees and staff in skill development; a huddle checklist provides criteria that teams can use to assess the way in which they coordinate efforts and work together to deliver quality care to veterans. An annual team retreat reinforces these lessons.

Interprofessional teamwork manifests in other ways: Trainees, such as those from pharmacy, psychology, and social work, can collaborate with NP and MD trainees in shared medical appointments, which have proven to be effective sources of workplace learning—and to improve clinic processes and outcomes for patients through performance improvement projects. All clinic conferences are interprofessional, and often include collaborative case conferences in which a complex patient is presented to an interprofessional team. Teams inform ongoing quality improvement projects seeking to improve patient access to care, including bringing patients up from the emergency department after they have been triaged to a level that can be handled by primary care.
The SFVA COE’s educational model incorporates several design principles for optimal workplace learning:

- Establish a culture and supportive working relationships that reinforce patient-centered approaches to care
- Use experiences from clinical practice as the primary curricular material
- Activate providers/staff/trainees to take responsibility for improving patient care
- Create accountability for performance and continuously strive for improvement at the individual, team, and clinic level.

The extensive curriculum includes shared decision-making, motivational interviewing, patient communication, systems improvement, and many other related topics that complement the rigorous didactic delivery of content delivered by interprofessional faculty (NP, MD, Pharmacy, Psychology, Social Work, Dietician). Another linchpin is having preceptors widely available and accessible, including nursing faculty whose sole job is precepting, and emphasizing interprofessional training during trainee clinic half-days.

The program relies heavily on technology. The VA’s robust electronic health record is an essential tool for posting patient information, test results, and other data, as well as communicating with the team in general. Trainers and trainees communicate regularly via instant messaging, and can also use secure messaging to communicate with patients. Whenever appropriate, the clinic steers patients to telephone-based care rather than face-to-face visits.

Outcomes are measured in many different ways; teamwork is the focus of considerable ongoing evaluation, including assessments through observation of team dynamics. Among other measures of success, the SFVA COE points to its Team Development Measure (TDM) scores. The TDM is a 21-item instrument for mem-

**Trainee Partnerships in Action**

A pair of internal medicine residents partner with a nurse practitioner trainee, and a Registered Nurse (RN), a Licensed Vocational Nurse (LVN), and a clerk to deliver care to a shared panel of patients; this is known as a “teamlet.” Trainees begin the day with an interprofessional collaborative case conference or training session. Then the team convenes for their morning huddle in the clinic. The LVN, who would have called all of the current day’s patients to better understand their needs for care, shares that information. Having reviewed patients for the next two weeks, the RN presents any questions or important issues the team needs to discuss. The clerk offers to help schedule patient visits, perhaps shifting some from face-to-face to telephone visits. Trainees then see patients and manage their patient panels, have scheduled telephone visits with 1 or 2 patients as an alternative to face-to-face visits, review their patient database, and prepare for upcoming interprofessional case conferences. After their clinic day, the team gathers to discuss a case, which could be one they worked on that day or another case they had previously agreed to focus on.
bers to rate items related to team coordination, collaboration, and clarity of roles and goals. Individual scores are combined to provide an aggregate team score. Between fall 2012 and spring 2013, for example, scores for most teams improved, some by more than 15 points.

As the program approaches the end of its initial VA funding, it has been deemed an integral part of the medical center and has been made a budget line item for future years, ensuring the sustainability of the program.

The VA’s vision is to roll out a similar training model to all of its primary care clinics where there are trainees. Success in replicating the model in new sites will depend on numerous factors, program leaders suggest, noting that the SFVA COE model depends on such factors as protected time allocated for faculty to precept, develop and deliver curricula, and coordinate trainee and faculty schedules. Other considerations include clinic culture and support, physical space, ability to organize trainee schedules to support participation in interprofessional huddles, group patient visits, and other critical learning experiences.

“We’re not just impacting trainees, we are impacting the whole clinic. I can’t say for certain what would have happened if we didn’t exist, but I just don’t think the team huddles would work nearly as well as they do if we weren’t here, coaching, and helping people work on their communication skills in the context of the huddles.”

Bridget O’Brien, PhD, UCSF Office of Medical Education
North Carolina, South Carolina, and Virginia:
I³ Population Health Collaborative

LOCATION: North Carolina, South Carolina, Virginia

PROVIDER/PRACTICE TYPE: Tri-State Learning Collaborative of 27 Academic Primary Care Programs

PROGRAM PARTICIPANTS: I³ practices include more than 1120 resident and faculty physicians

PROGRAM REPRESENTATIVES: Warren P. Newton, MD, MPH, Vice Dean, Director of the NC AHEC, and William B. Aycock Distinguished Professor and Chair at the University of North Carolina School of Medicine; Michele Stanek, MHS, Assistant Research Professor, University of South Carolina School of Medicine Department of Family and Preventive Medicine

SUMMARY: The I³ Population Health Collaborative is a learning partnership of academic primary care programs in North Carolina, South Carolina, and Virginia. The Collaborative derives its name (I³) from the notion that it is devoted to “improvement to the power of three,” which impacts patients served at participating residency practices, primary care practices that graduating residents go to following residency, and community practices linked to and influenced by the residency practices. Its goal is to create momentum for widespread ambulatory practice improvement by increasing access, quality, and cost-effective care for populations being served by primary care residency practices, and to train primary care residents in advanced models of primary care. The Collaborative feels that the practice is the curriculum. To prepare physicians and other health care professionals to practice in and lead high performing primary care practices, they must train in practices that have implemented advanced primary care models, especially team-based care, and engage in active, ongoing performance improvement. Its participants seek to adapt to health care reform through small units across institutions; interprofessional teams work to effect changes in care across the three states.

THE I³ POPULATION HEALTH COLLABORATIVE seeks to improve the health of its communities by:

- Engaging academic medicine in health care quality
- Developing patient-centered medical homes
- Focusing on coordination of care in the community
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- Directing improvement in the quality of care for patients served by the participating teaching practices
- Impacting the practices of graduating residents
- Leading practice improvements as program faculty become local experts, assisting practicing physicians in their region.

Initial organizers recognized that responding to health care reform might be easier if it were orchestrated through collaboration among small units across institutions. Teams based in family medicine residencies in North Carolina and
South Carolina—involving faculty, residents, nurses, and clinical support staff—could work together to effect changes in health care. A funder was eager to provide grant support if the approach included programs from both North and South Carolina. In 2005, the program attracted interest from sixteen of the twenty family medicine residencies in the two states.

Early work focused on chronic disease improvement for patients with congestive heart failure and diabetes, and used a regional collaboration methodology that combined face-to-face meetings with monthly data submissions and webinars. In 2007, the Collaborative’s work focused on supporting participating practices in developing their patient-centered medical home (PCMH) and obtaining NCQA recognition for PCMH, which attracted interest from residency practices in internal medicine and pediatrics as well as Virginia residency programs. The third phase of the Collaborative’s work focuses on population health through implementing the Triple Aim.

Twenty-seven primary care training practices across the three states, including programs in family medicine, internal medicine, and pediatrics, collaborate to improve care and to develop new curricula and teaching strategies related to quality improvement, practice redesign, PCMH development, and population health management. (Changing the curriculum is a requirement for individual program participation in the Collaborative.) A fundamental assumption in the Collabora-

A Closer Look at Questions About Cost

These notes, developed for the initial learning session of the Cost/Utilization working group, provide insights into how the Collaborative frames its work—and capture some key questions on the topic of cost in health care:

**WHY ADDRESS COST?** Cost is a major issue that employers, patients, government are talking about. Residencies and academic centers must provide ideas and leadership. Faculty, residents, other health care professionals and students need to learn to reduce cost, while improving quality and patient experience.

**WHY IS IT DIFFICULT TO ADDRESS COST?** Current payment models reward volume. Cost data is neither available nor transparent.

**OPERATING ASSUMPTIONS.** There is a focus on utilization rather than charge or cost. Population will be the patients taken care of by the residency practices.

**CORE PARAMETERS.** Hospital admissions, outpatient admissions, and ED visits; referrals; and high-end radiology are parameters, not primary care visits.


**KEY QUESTIONS.** What are care utilization drivers? How they vary across residencies? Can residencies reduce utilization appropriately? Can PCMHs make a difference in issues that matter for health care?

**TIMELINE: MONTHS 1-5.** Define major utilization drivers in residency practices that can be influenced. Share data on prior initiatives to reduce costs, practice hours, ED co-pays, etc. Develop interventions to reduce utilization and subsequently cost.

**TIMELINE: MONTHS 6-18.** Each residency will launch an intervention(s) to reduce utilization. Monthly data will be posted on I^2 website. Share best practices and learn from failures.
tive’s work is that future primary care physicians and other health care professionals must be prepared to practice in and lead PCMHs and other new models of primary care, and that they will become leaders who strive for improvement in clinical quality and the patient experience and to reduce health care costs.

Teams in the Collaborative include residency directors, medical directors, practice managers, nurses, residents, medical students, clinical pharmacists, quality managers, and other clinical support staff, including social workers and psychologists. Teams participate in one or more of three working groups, each focusing on an aspect of the Triple Aim: increasing clinical quality, improving patient experience, and reducing inappropriate utilization of services. Activities include two face-to-face meetings each year, three monthly webinars (one for each working group), and the posting of data, best practices, curricula, and other relevant resources to a shared website.

The strong commitment of a core leadership group over time has helped the Collaborative sustain itself; a largely volunteer leadership team of eight people has been meeting each Friday at 7:00 a.m. for nearly nine years. Apart from managing administrative details, the team keeps the Collaborative informed of activities at individual sites and troubleshoots problems. Local knowledge helps leadership to intervene and help.

In addition, the Collaborative provides opportunities for meetings of what it calls “affinity groups,” where people in similar roles can meet with their counterparts from other institutions to discuss specific issues from the standpoint of nursing, pharmacy, practice managers, and the other constituent groups that comprise the main Collaborative teams.

Current goals of the Collaborative include reductions of emergency department visits by 50 percent, hospitalizations by 25 percent, referrals by 50 percent, and high-end radiology by 50 percent. While it is also a goal to improve patient experience, it has been challenging to report on this metric across settings since every system measures it differently. In addition, a lack of standardization in electronic health records affects the ability of Collaborative teams to share basic information. However, team-based care is discussed regularly and practices around workflows are shared.

The program thrives despite the challenges of non-interoperable electronic medical records by relying on a high-touch approach. A core component of the Collaborative’s work includes biannual face-to-face meetings of all teams. These “Learning Sessions” include general sessions; breakouts on best practices, educational innovations, and emerging topic areas; learner sessions to develop quality improvement skills and capacity; and ample opportunities for teams to share knowledge and advise each other via practice improvement consultations. In addition to the team members, attendees at the learning sessions include representatives of health plans, institutional medical education leaders, and representatives of state health systems, departments, and area health education centers.

“It’s not just physicians talking about what’s going on in the practice, but it might be a practice manager, or a nurse, or a pharmacist. We really take to heart that practice improvement is a team sport, and that we are all essential members.”

—Michele Stanek, MHS
University of South Carolina
School of Medicine
National experts and thought leaders regularly deliver keynote addresses on relevant topics.

Between meetings, monthly webinars for each of the working groups—usually with a preceding homework assignment—deliver didactic content and provide a channel where data can be reviewed and teams can continue their discussions. Webinars discuss such topics related to their working group's focus area such as access, communication, patient tracking and registry, care management, self-management support, e-prescribing, referral tracking, the roles and functions of teams, safety, integrating behavioral health, and transitioning patients across the continuum of care. Learners in the Collaborative can be residents, faculty members, clinical staff, or practice managers.

Each team member has access to a password-protected SharePoint site that facilitates sharing of data and best practices between and among teams. Each team also has a representative on the Academic Collaborative, which meets regularly to develop, discuss, and review scholarly products related to the Collaborative or a team’s practice improvement work.
Northwestern McGaw Family Medicine Residency
Teaching Health Center: Team-Based Care Curriculum

**AT A GLANCE**

**LOCATION:** Chicago, IL  
**PROVIDER/PRACTICE TYPE:** Teaching Health Center, Federally Qualified Health Center (FQHC)  
**PATIENTS:** 50,000+ patients/year at 11 sites  
**PATIENT POPULATION:** 84% Hispanic, 8% African American; 97% below 200 percent Federal Poverty Level  
**PROGRAM PARTICIPANTS:** Family Medicine Residents (8 per year); Social Work Interns (2-3 per year); Advance Practicum Psychology Externs (1-2 per year)  
**PROGRAM REPRESENTATIVES:** Anuj Kumar Shah, MD, MPH, Associate Program Director, Family Medicine Residency, Clinical Assistant Professor of Family and Community Medicine; Mary R. Talen, PhD, Director of Behavioral Health Education, Clinical Assistant Professor of Family and Community Medicine; Miriam Vera, RN, Team Lead Nurse, Erie Family Health Center.  
**SUMMARY:** Northwestern University’s Feinberg School of Medicine offers a Family Medicine Residency Program based on a team-based care curriculum. Created to address the changing needs of health care in the United States, the program seeks to train family medicine residents to serve in traditionally underserved communities and work in federally qualified health centers (FQHCs). The program incorporates a team-based educational curriculum designed to support a redesigned clinical practice model organized around interprofessional teams. As part of a complex care initiative, the program is working toward a system where patients and providers will collaborate to develop a shared care plan that can be integrated into electronic medical records.

BEGUN IN 2010, and enrolling up to eight residents per year, the Northwestern University Feinberg School of Medicine’s Family Medicine Residency Program partners with Norwegian American Hospital, a safety net hospital, and Erie Family Health Center, to deliver its team-based care curriculum. One of the original
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- Advocacy for patient-centered integrated care
- Cultural sensitivity & competence in culturally appropriate practice
- Development of effective, caring relationships with patients
- Patient-centered care planning, including collaborative decision-making & patient self-management

#### Comprehensive Care Competencies
- Assessment of biopsychosocial needs across the lifespan
- Population-based approaches to health care delivery
- Risk identification

#### Coordinated Care Competencies
- Care coordination for comprehensive care of patient & family in the community
- Health information technology, including e-communications with patients & other providers
- Interprofessionalism & interdisciplinary team collaboration
- Team leadership

#### Accessible Care Competencies
- Promotion of appropriate access to care (e.g., group appointments, open scheduling)

#### Care Quality & Safety Competencies
- Assessment of patient outcomes
- Business models for patient-centered integrated care
- Evidence-based practice
- Quality improvement methods, including assessment of patient-experience for use in practice-based improvement efforts

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11 federally funded Teaching Health Centers, the program has received five years of support through HRSA under the Affordable Care Act (ACA). Teaching Health Centers are designed to address the primary care physician workforce shortage. The program is housed at the Humboldt Park location of the Erie Family Health Center, a comprehensive FQHC in Chicago that comprises 11 community sites.
The program’s objectives are to:

- Develop a community-based family medicine residency program within an FQHC, based upon legislative guidelines:
- Train new family physicians to care for patients who benefit from the ACA
- Develop clinically excellent, culturally competent family physicians
- Produce graduates who will work as primary care physicians in medically underserved communities
- Increase access to care for the community
- Create an educational environment that places special emphasis on working in multi-disciplinary teams.

To fulfill its objectives, the program’s faculty members are committed to delivering care to underserved patients and they bring an expertise in teaching and providing clinical care in a low-resource setting. The program is distinct from other Teaching Health Centers in its three-part mission that includes research, leadership, and community-based health care.

This program offers a developmental curriculum designed to enhance team-based care by addressing knowledge, skills, and professional attitudes in these areas:

- Defining and describing team-based care models such as patient-centered medical homes (PCMH) and Accountable Care Organizations (ACOs)
- Assessing and understanding individual and team members’ styles, roles, and responsibilities
- Developing communication pathways (huddles, monthly team meetings, electronic messaging)
- Implementing Plan–Do–Study–Act cycles, shared care plans, and complexity care for quality improvement processes
- Developing leadership skills in managing team conflict resolution, problem solving, and accountability team processes and strategies.

There is a structured curriculum that addresses interprofessional training in weekly, monthly, and quarterly educational sessions. Weekly conferences cover a full spectrum of topics in family medicine. Didactics include presentations on PCMHs, ACOs, and public health initiatives. For structured interprofessional education, training is bidirectional; medical assistants (MA) and nurses teach residents, and residents teach MAs, nurses, or physicians. In the longitudinal leadership curriculum, residents are trained in leadership skills such as team-building, managing conflict, communication skills, and giving and receiving feedback. A major educational focus is training culturally competent physicians—especially in improving their Spanish language skills, and in social-cultural determinants of health (i.e. Latino health beliefs). There are quarterly complex case conference sessions, which include multidisciplinary members and addresses the biopsychosocial cultural determinants of health.

Residents gain exposure to working with clinical and research teams as well as quality improvement staff. An extensive scholarship requirement offers residents the opportunity to participate in community engagement and advanced scholar-
ship projects that are focused on translational primary care research. The goal is for residents to present and produce publishable outcomes that will positively affect health care in underserved communities.

A major focus of the program is on building team-based care. Teams—which include family physicians (both MDs and DOs), family medicine residents, nurse practitioners, registered nurses, medical assistants, midwives, pharmacists, social workers, psychiatrists, psychology externs, case managers, patient navigators, and health care educators. Team meetings focus on three areas: 1) New, 2) Review, and 3) Do. During a monthly team meeting, for example, there may be a presentation on new clinical protocols for asthma management or motivational interviewing, followed by a review and troubleshooting about huddling and pre-visit planning, followed with small team meetings to “scrub” their patient panels and ensure that patients are seen by the same team of providers.

While residents engage in clinical training in a range of settings, including Norwegian American Hospital, Northwestern Memorial Hospital, and Ann & Robert H. Lurie Children’s Hospital of Chicago, their clinic schedules are arranged to have a consistent weekly schedule that enhances continuity of care with their home base. There is a six-month block scheduling that allows residents to work with the same clinic colleagues, giving continuity to those relationships and also providing more consistency in the patient–doctor relationships.

Team-based communication relies on technology to help team members with daily interactions; they do this through the electronic medical record and instant messaging to help manage and coordinate patient care, such as developing self-management goals or trouble-shooting a referral. As part of a complex care initiative, the program is working towards a system where patients are stratified based on the high, moderate, or low levels of complex care (e.g., medical, system fragmentation, and patient capacity). Teams can then develop a collaborative care plan with patients that can be integrated into the electronic medical record (EMR).

Our teams are developing the comfort and confidence to integrate behavioral health providers into patient care at the point of care. The IBC (Integrated Behavioral Health Consultant—Social Work and Psychology externs) has an “open-door” policy where providers can “flag” the IBC for a warm hand off between patient, primary care provider and IBC. Residents gain experience and confidence in shared responsibility and care for patients with IBC. Integrated EMRs enables medical staff and behavioral health specialists—social workers, psychiatrists, and psychologists—to see each other’s notes.

Through advanced practicums, doctoral-level psychology students manage a small caseload of primary care patients, collaborate with family medicine residents during clinic, and participate with the longitudinal Education Centered Medical Home team of medical students. All of these direct patient-care experiences teach them the culture and demands of a busy primary care clinic. They act as go-to consultants for behavioral health concerns during the office visit. Psyc-
psychology interns and family medicine residents design curriculum and facilitate stress clinics for patient groups. Administrators have been working to more fully incorporate social work services into the teams, too, so that social determinants of health are considered for all patients; social workers will also be able to address patient navigation and external issues that go beyond behavioral health needs.

Residents can participate in medical–legal partnerships through the Loyola School of Law Health Justice Project, which helps trainees learn to screen, diagnose, and advocate for patients with unmet social needs. Residents and law students then co-manage those needs in a team approach. Residents also participate in interprofessional case rounds with law students who are managing patients’ legal issues.

Each resident has a three-month assignment as chief administrator or junior medical director, giving them the opportunity to develop leadership skills. They facilitate weekly team lead meetings that include representatives from nursing, medicine, behavioral health, front desk, referrals, and lab in order to troubleshoot and address conflicts and complications with patient care, scheduling, and resource management.

The Northwestern program encompasses community medicine as well. For a month, residents go out in their respective communities to tour sites that patients have identified as important for local health care. Examples include a diabetes empowerment center, an interfaith house that houses homeless patients, and an addiction treatment center. Complementing these site visits are didactics on topics such as social determinants of health, asset mapping within the community, and community needs assessment.

Citing the unique characteristics, community, and resources at Northwestern and Erie Family Health Center, leadership hesitates to say the program could be replicated elsewhere. The program, however, is scalable in its current context. Plans are in place to double the number of participating residents. The program seeks trainees who embrace change and who invest personally in the program’s mission of leadership, scholarship and community-focused health.
Harbor–UCLA Family Medicine
Transforming Primary Care and Faculty Development Fellowship

THE HUCLA FAMILY HEALTH CENTER, an ambulatory practice site for 36 family medicine residents and their faculty, is transitioning to a patient-centered medical home (PCMH) model. The fellowship provides leadership, resources, and training to support that transition. Participation in the PCMH transformation provides the experiential setting for the fellows’ development.

Recognizing that many residents may graduate without experience practicing in a PCMH, the design of the program ensures that fellows participate in interprofessional care teams, lead quality improvement activities, learn leadership skills, and develop a better understanding of organizational change, with close mentoring from fellowship faculty. Fellows also gain experience in teaching PCMH principles and practices to residents and medical students. The program
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is funded by a five-year Title VII grant from the Health Resources and Services Administration (HRSA), with support for three fellows in the 2013-14 cohort and four participating in 2014-15. Overall, the program has capacity for two full-time and up to four part-time fellows per year. The program is intentionally designed on a scale that supports intensive mentoring, which appears to be a key to its success in cultivating fellows into leaders and teachers.

Fellows, who currently are all family physicians, spend 50 percent of their time in clinical work, including direct patient care and two half-days of supervis-
ing and teaching residents. The other 50 percent includes seminars, department lectures, and administrative time to work on projects; some fellows have chief resident duties as well. Fellows gain practical experience as leaders of quality improvement teams that can include faculty, other residents, nursing, and frontline staff. Fellows are responsible for planning, running, and following through after meetings to see that specific work assignments are completed by the team.

A weekly seminar includes didactic training, speakers, webinars, role-playing, and other learning methodologies. It serves as a laboratory in which fellows learn theory that they can then apply in practice and get feedback from faculty and peers. Fellows also receive individual coaching to help them develop their leadership and team skills. Fellows are asked to set goals for themselves that are reviewed regularly by fellowship staff, and to write periodic reflective statements assessing their progress that are part of their evaluation.

The HUCLA fellowship strives to develop many of the interprofessional team competencies described on page 11, with a particular emphasis on quality improvement, leadership skills development, and team-building. Seminar sessions develop such competencies as access to care, patient self-management, motivational interviewing, shared decision-making, goal setting and burnout, cultural sensitivity, and advanced communication skills.

The fellowship program is helping to drive transformation of the HUCLA Family Health Center as a whole. A focal point for novel thinking about ways of working in this new environment for health care, the fellowship program serves as a “think tank for transformation” of the health center; as fellows add to their own learning and develop leadership skills, they also serve as important change agents for the center as it seeks to reform itself as a PCMH. Over the past three years, fellows have presented their work at local, regional, and/or national forums. Some have been awarded modest grants that they use to support the efforts of the quality improvement teams.

A number of additional resources have recently become available to support PCMH transformation in family medicine at HUCLA including implementation of an electronic health record, institutional support for implementing Lean improvement methods, addition of a clinical pharmacist to the teaching staff, and co-location of mental health services in the HUCLA Family Health Center. The clinic is also part of a pilot study of an innovative patient-centered approach to quality improvement. These resources will also enhance fellows’ learning and provide real-world opportunities for them to gain experience in implementing a new model of patient-centered primary care.

“When I hear from colleagues that people coming out of residency are not prepared to work in new models such as PCMH, it seems to me that we probably need to ramp up this training and I think quickly. It’s going to take a number of years before the general experience of the resident involves practicing in a PCMH.”

—Susan Snyder, MD Harbor-UCLA
“We need to deliver better value to our patients and it is important that we remind each other and ourselves that, in the end, we need to show improvement. There is a commitment in the Collaborative to doing practice-based improvement, and a commitment to educating our future physicians to have the tools and skills they need to be leaders in the primary care community around practice-based improvement.”

Michele Stanek, MHS, University of South Carolina I^2 Collaborative

### Hallmarks of Excellence

THE PROGRAMS REPRESENTED HERE and the others reported in the PCPCC database reflect significant inroads in the work to develop effective models and realize the promise of delivering primary care in the patient-centered medical home:

**FOCUS ON PATIENT-CENTERED CARE.** All of the programs sought to develop effective, caring relationships with patients and were designed around patient-centered care planning that included collaborative decision-making and patient self-management. Further, several of the programs promote access to care through such channels as group appointments and open scheduling. As care-delivery teams within programs gelled, most became true advocates for patient-centered integrated care; several teams became models for other hospital- and clinic-based units for how patient care could and should be delivered in the patient-centered medical home.

**CULTURAL SENSITIVITY AND COMMUNITY FOCUS.** Virtually all of the programs emphasized sensitivity and competence in culturally appropriate practice. The programs take a community-based approach; they intentionally focus on particular population communities and are designed to meet patient needs specific to those communities.

Whether serving veterans or underserved communities, the programs were attuned to the needs of their populations to such an extent that those needs drive their missions.

Several programs are based in or have sites in the neighborhoods they serve—in essence, providing care where their patients live. They require trainees to understand patient populations from cultural and community standpoints, and require field practice that facilitates this. That understanding can extend to patients’ biopsychosocial and spiritual needs. In programs with this emphasis, we found that such considerations often come up in team discussions about patient care.

**CONTINUOUS IMPROVEMENT.** We found a strong commitment to continuous improvement across all the programs studied. Trainees in the programs often design and execute practice-based improvement efforts as part of their training.

**DEVELOPING EFFECTIVE TEAM PRACTICE.** We were especially interested in exploring how the training programs implement and refine the practice of delivering primary care through interprofessional teams. There are strong examples of programs that understand what interprofessional means and have incorporated innovative practices to model some of its best dimensions in practice.
Programs are building a considerable base of knowledge about effective team dynamics and are codifying that knowledge in operational team principles and practices. Several of the case-study programs have developed teams that engage professionals and trainees from across a wide range of professions in truly interprofessional health care delivery.

**DISPERSED TEAM LEADERSHIP.** While some programs still defer to the tradition of having physicians lead teams, there is evidence that teamwork in several sites has evolved to the point where specific needs for care, rather than traditional hierarchies, drive team leadership at any given time.

We were favorably impressed by the innovative ways in which learning in many of the programs takes place not in the traditional, hierarchical, top-down manner, but from many sources within the programs. No longer is learning delivered solely by the most senior health professional, often a physician. Instead, we found many examples where various professionals were guiding the learning for the full team. Today, practice managers, nurses, and pharmacy students might be as likely to be teachers as residents and faculty members.

**INTEGRATING BEHAVIORAL CARE WITH PRIMARY CARE.** Behavioral health is increasingly being integrated into primary care to varying degrees, incorporating psychologists and social workers (and students in these professions) into interprofessional teams. The role of behavioral health professionals is increasingly recognized as an integral component of team care in the PCMH. Some of the sites are incorporating behavioral health particularly well, caring for patients holistically through fully integrating primary care and behavioral health while other programs struggle in this area. Reviewing the stronger integrated care models outlined here and forming relationships with social work and psychology schools could help programs as they move towards integration.

Innovations developed within the programs provide lessons for other clinical and institutional operations. For example, Harbor–UCLA serves as a think tank for transformation for the health center where it resides. As program participants add to their own learning and develop leadership skills, they also in effect serve as important change agents for the center as it seeks to reform itself as a PCMH. There is evidence of a similar effect at other sites.

“I think the biggest barrier that we have had to work through is how to respect each other’s academic units—to create learning experiences that make sense across units, because each unit has a culture. Rather than pharmacy trying to figure out what the world is like and teach nursing students how to engage in it, let the world be part of telling you how the world is.”

Mark Britton, PharmMD, University of Oklahoma
Opportunities for Improvement

While the programs have realized considerable success and noteworthy accomplishments, some barriers have impeded progress.

**INSUFFICIENT RESOURCES, CHALLENGING LOGISTICS.** Common barriers programs reported were time and money. Instituting effective training programs for better delivery of primary care in a PCMH is hard work that requires long hours, and finding continued financial support is an ongoing concern.

In several of the programs, logistics provide a formidable challenge to team-building. It takes considerable collaboration to overcome challenges of scheduling students from various academic programs to work together on teams in busy clinics. Further, staff turnover coupled with the steady rotation of new cohorts of trainees means that program directors face a continual task of educating new stakeholders about program mission, practices, administrative details, and culture.

**OUTDATED FINANCIAL MODELS.** All of the program directors expressed concerns about future revenue streams; those programs started with grant funding may be particularly vulnerable to economic trends. Further, fiscal practices have not been updated to reflect the realities of practice in a PCMH.

**INCOMPLETE PATIENT INTEGRATION.** Patients are not yet fully integrated into the design and administration of these “patient-centered” teams nor into the culture of the health professions education system. The patient voice is not yet fully heard in the initial design or refinement of the programs, and there is insufficient patient representation in program administration. Complete adoption of the patient-centered medical home will require more direct input and ongoing advisory guidance from patients themselves. This is true within a practice, where increasing use of patient and family advisors as part of quality improvement efforts is becoming more common and highly valued. Patients and families must also be engaged as partners in the training and education of health professionals, which sets the stage for a culture in which patients are always a part of their care team, not “simply objects of the team’s attention,” emphasizing the “nothing about me, without me” philosophy that is central to the concept of the PCMH.

**TECHNOLOGY’S PROMISE UNFULFILLED.** The use of technology to support team operations is uneven, ranging from sites with robust, integrated technology to sites that have not yet implemented an electronic medical record. This unevenness also drives programs’ ability to access, analyze, and apply data about population-based health, and to draw relevant insight from patient registries. Programs are only beginning to compile and use population-based data, and usage was episodic rather than routine. Access to and use of patient registries, health information exchanges, risk stratification, or referral tracking are in their infancy. Consequently, the case-study programs take a limited population-based approach to health care delivery.
LACK OF STANDARD, MEANINGFUL MEASUREMENT. When we asked programs about how they measure their progress and success, responses were typically more anecdotal than data-driven. There are many of barriers to data collection: insufficient time, energy, money, and metrics. One program is working with a consultant to develop more concrete program evaluations, including formal analysis of the program’s qualitative data.

BLURRY RELATIONSHIP TO PATIENT OUTCOMES. With a few notable exceptions, there is little evidence that programs are being informed or shaped by specific patient outcomes, leaving a gap in critical knowledge. Program directors reported that they do not have good metrics for measuring patient outcomes that result from their programs. A few programs assigned the business of measuring patient outcomes to student projects, but these were one-offs and were not administered consistently or longitudinally.

STUDENT ENGAGEMENT. Several program directors reported that it could be difficult to engage some students in team-based practice; the students preferred training to develop clinical competencies over developing team-based competencies. In some cases, students simply wanted more content knowledge to build their confidence for clinical work. In other cases, students were not particularly committed to community-based care. Getting information about the PCMH model and interprofessional practice to trainees earlier in their academic program may help to demonstrate the value of team- and community-based care.

VARYING POTENTIAL FOR SCALING AND REPLICABILITY. Program directors were uncertain whether their programs were replicable. They expressed the sense that the programs succeed based on factors unique to their own circumstances, such as particular combinations of academic and community partners. In that context, the profiles underscore that effective practice must be tailored to local environments. Programs and institutions interested in pursuing similar goals might consider how particular elements of each case study program could be adapted.

Program directors were more confident that their programs could be scaled if the right mix of resources were available. As the factors that contribute to program success are identified and shared, and as programs become more standardized, systemic, and mature, more opportunities for scaling will become apparent.

“We’re trying to implement a true team model that breaks down silos between different types of health care. The goal is a fully implemented PCMH, a model where people can come to work and feel like they really can take good care of their patients today, and know that they’re there for each other and the patients.”

Susan Snyder, MD, Harbor-UCLA
Interprofessional Education

“Thinking and Acting Differently:”
PCMH Workforce Development Models

By Christa Cerra, DNP-FNP, and Barbara F. Brandt, PhD, Director
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Over several decades, interprofessional education and collaborative, team-based practice (IPECP) have experienced peaks and lows of interest with shifting national health care issues. While some teams—such as geriatric, rehabilitation, renal, surgical, and transplantation—survived over the years, team-based primary care has not been the norm. The same is the case historically for interprofessional education in universities and colleges. Since the mid-2000s, a number of forces, including quality, cost, access, safety, and policy, are giving “lift” to the Patient-Centered Medical Home (PCMH) movement to redesign primary care. These same forces are also fueling new interest in interprofessional education as a viable approach to developing team-based competencies. Both movements present innovative strategies to redesign the processes of care and health professions education together to become more efficient, effective, and outcome-focused.

The National Center for Interprofessional Practice and Education (https://nexusipe.org), a public–private partnership based at the University of Minnesota, was created as a national coordinating center for IPECP. The National Center approaches its work to take advantage of national efforts to realign clinical practice redesign with new models of interprofessional education. Partnering with the Patient-Centered Primary Care Collaborative to interview the identified exemplar PCMHs profiled in this report presented us with the opportunity to showcase new workforce development strategies in what we call the “Nexus.”

The Nexus is defined as clinical practices in transforming systems that partner with health professions education programs to think and act differently because they support continuous professional development while educating the next generation of health professionals. PCMHs provide excellent environments to role model patient partnerships for students and residents. In the National Center, we are discovering the characteristics of these emerging workforce development models in clinical practice. These settings are working to actively:

- integrate clinical practice and education in new ways
- partner with patients, families, and communities
- strive to achieve the Triple Aim in both health care and education (cost, quality, and populations)
• incorporate students and residents into the interprofessional team in meaningful ways
• create a shared resource model to achieve goals
• encourage leadership in all aspect of the partnership.

We at the National Center are encouraged that all identified sites for this publication demonstrated a commitment to an educational mission. To us, this confirms that innovative workforce development strategies incorporating students and residents synergize well with transforming clinical practices. During the interviews, three sites particularly illustrated elements of the “Nexus:” the University of Oklahoma’s Family Medicine Center, the San Francisco VA Medical Center, and New Mexico State’s Counseling Psychology PhD program. These sites are “thinking and acting differently” in compelling ways:

SHARING A VISION. These three sites demonstrated a shared vision and extraordinary commitment between the PCMH and their partner health professions education programs. They are able to articulate a common purpose and effective strategies to address significant barriers. For example, Eve Adams, PhD and Daubney Harper, PhD of NMSU draw attention to the importance of understanding and meeting each partner’s needs and perspectives. They explain that bridging cultures to create a new one requires a significant amount of face-to-face time, often unpaid, in order to build relationships, trust, and a working appreciation for one another.

THE PATIENT-CENTERED CURRICULUM. Curriculum development for team-based, interprofessional practice is challenging. To do so, Mark Britton, PharmD of the University of Oklahoma Family Medicine Center, firmly believes in the importance of starting with the patient in mind, rather than the needs of an academic program or the clinical practice. Therefore, being a PCMH helps in designing a relevant educational program. “Identify the needs of the patient within the system, create and implement services and educational activities to address the needs, and then incorporate the learner,” he suggests.

Terry Keene, DNP-FNP, comments that to hear and respond to the patient voice, the San Francisco VA uses a shared-decision making model in which students are trained to identify the needs and wants of the patient, and then provide the patient with choices based on their needs. Keene comments that when using such a model, interprofessional trainees learn to respect the wishes of the patient. “They learn to ask open-ended questions and partner with the patient in order to understand their station and situation in life, and how that impacts their care,” remarks her colleague Rebecca Shunk, MD.

INNOVATION FOR CULTURE CHANGE. The integration of students and patients into the PCMH teams in these sites is creating innovative strategies for individual and team growth. We observed that these sites demonstrated a commitment to a fundamental shift in culture away from traditional, hierarchical models toward more level and innovative approaches as crucial to the transformative process. To support development, sites are gravitating toward engaging in new ways of
understanding the roles and responsibilities of all team members. For example, at the University of Oklahoma Family Medicine Center, students learn to maintain weekly journal entries focused on daily instances of the benefits and challenges of working in teams. Entries are then reviewed anonymously and collectively by the learner–clinician/faculty interprofessional team at the end of each week. As a result, Britton comments that individuals “begin discovering that they do not have to know all of the answers, and that they can rely on other team members for help when needed.”

Site champions for innovation are also essential drivers to making the shift in culture. Adams and Harper note the importance of having key individuals onsite who are interested in the process. Harper places emphasis on individual willingness to develop relationships. “Building something greater than just your silo goes a long way,” they suggest. Shunk remarks that champions forge a very active process, continually reinforcing the model of working in teams and providing support by demonstrating collaborative practice with student learners as well as other colleagues.

Sites are also discovering that a shift in culture may not always require making big changes. Shunk comments that because physicians at the San Francisco VA have traditionally had “more of the power in the whole thing,” Shunk and Keene relocated morning interprofessional huddles from the physician clinic room into the nurse practitioner clinic room. “This simple move, in which the NP is sitting at his or her computer and the resident is sitting on the bed and not in the power chair, helped to flatten the hierarchy piece,” remarked Shunk.

**SPONTANEOUS TEAM LEADERS.** The patient-centered curriculum promotes a focus on the unique needs and experiences of each patient. New Mexico and Oklahoma reported that the more students are trained in communication and conflict resolution, the easier it becomes to listen and respond to actual patient needs. In this model, team leaders—no matter which profession or whether clinician or learner—emerge spontaneously based on the individual needs of the patient. Team members naturally master new skills.

**BENEFITS OF THE NEXUS TO THE PCMH.** Clear benefits to the practice site are also emerging. Shunk and Keene note that when students and residents are meaningfully embedded into the PCMH, the whole site benefits. “Students bring fresh ideas and ask tough questions” related to collaborative practice, Britton believes. He notes that the new models of interprofessional education keeps providers and support staff honest and expansive in their thinking as they begin to appreciate their own limitations, and start realizing that they need others in order to deliver more efficient and effective patient care.

**BENEFITS OF THE NEXUS TO STUDENTS AND RESIDENTS.** Harper comments that students intentionally trained in team-based care settings appear to be more “collaboration-ready” and marketable. Therefore, they are more likely to be fully utilized in rural New Mexico where patients have limited access to care. Students are also completing their rotations with a higher degree of confidence after expe-
riencing a rotation in team-based care. Harper remarks that students are better able to articulate their worth within a team, and have less anxiety about participating in patient-centered, collaborative practice. Oklahoma also finds that during face-to-face interactions on a regular basis, students become more confident when provided with the opportunity to openly discuss how to address barriers to collaboration.

We are inspired by these sites because they are demonstrating new interprofessional education models in exemplary PCMHs. While they have specific ecologies and cultures, they share characteristics that can be transportable and scalable to other practices. We have much to learn from them. The National Center looks forward to showcasing how these sites are developing beneficial Nexus relationships to advance patient-centered primary care workforce development by “thinking and acting differently.”

References


**Additional Resources**


