Impact #1: Educators working with community partners to make progress toward improved access to care for the target population

Public housing development community services: Students are working in interprofessional teams with on-site case managers and local community health workers in a Housing First program to address individual and population-level drivers of health for chronically homeless single adults with complex unmet needs, who are identified as high-utilizers of health care. Interprofessional teams identify health status and risks, improve care coordination and inform delivery of health care and social services. Housing First residents have felt they had an advocate in the health care system, which was change in perception since this program was initiated. Over the course of two years, there has been an increase in the diversity of patients and populations served by the program, and a broadening of the partnership with the county housing authority to include residents in other housing programs.

Public housing development primary care: Students assessed the needs of residents in a public housing development and found that residents reported barriers to accessing health care, including cost of care and transportation to health care facilities. An education-community partnership was forged with the university and the public housing authority to address these needs. Through the partnership, the public housing authority built a new primary care health clinic on-site at the housing development with interprofessional student teams helping to develop a sustainable business and marketing plan for the clinic. During the first 18 months of the new clinic (opened in Nov. 2017), 444 unique patients were served through 1,131 clinic visits. The convenient location and a policy to provide treatment regardless of the patient’s ability to pay have resulted in measurable evidence of improved access to care for this underserved population. Services at the clinic continue to expand.

Residential substance abuse treatment center: Through this education-community partnership, interprofessional teams of students and their preceptors provide residents of a substance abuse treatment center with on-site attention to medical, care management, and social needs that have a direct impact on recovery and relapse rates. In less than one year, $95,000 of clinical services were provided and more than 260 residents and family members were served through health promotion by student Interprofessional teams and their preceptors. Previously, the residents did not receive integrated direct care or health promotion services specifically designed for their needs. Due to successes in the first year, the treatment center funded and built a new clinic space to expand services. The education-community partnership developed a service delivery model that incorporates both billable and free service provisions. Services provided include Family, Women’s Health, Adult and Psych Mental Health, Physical Therapy, Social Work, and Speech and Language. A women’s health nurse practitioner was added as a new member to the team in direct response to health needs of women who use substances.

Home-bound older adults: Interprofessional student teams identified a gap in services for older adults related to safety at a Federally Qualified Health Clinic (FQHC). This initiative provided home visits with interprofessional teams. In the first year, the teams delivered 108 home visits and 53 unique
follow-up appointments with referrals to primary care, behavioral health, psychiatric and dental services. Student home visit teams clearly identified eight instances of a “near miss”, or the avoidance of a safety risk during home visits.

**University-based ambulatory care clinic:** Following the closing of a university hospital, a new ambulatory care clinic (ACC) was established on campus to serve primarily refugee and racial minority populations in the community. This local population has high instances of diabetes, asthma, COPD, and heart disease. The interprofessional team at the new clinic works to improve health and connect patients to non-medical social services that were previously outside the scope of clinical work at the university hospital. During a one-year period, the interprofessional teams saw 276 patients who fit criteria for inclusion in a high-risk registry. Compared to traditional primary care provided in the previous year, there were significantly fewer emergency department visits, fewer hospitalizations, lower diabetic control indicators (HgbA1c levels), and fewer health care charges.

**School-based health clinic:** This initiative expanded services to an existing public school-based health clinic by providing comprehensive services to an underserved population of students with complex health issues. The interprofessional teams providing this care were comprised of nursing, pharmacy, and child/adolescent psychiatric fellows. Prior to this program, the school health clinic did not provide behavioral health consultations or clinical pharmacist evaluations, which are now provided by the team. The teams have increased the students’ access to mental health and pharmacy consults. Dental services were added the second year of the program.

**Impact #2: Progress toward improved satisfaction and better quality of care of the target population**

**Residential substance abuse treatment center:** Due to the onsite services provided by this initiative’s interprofessional care management teams, the first year saw an increase in residents’ 30-day program completion rates, and medical incident reports (including transfers to higher levels of care) were completely eliminated for residents compared to control sites (other treatment centers in the community without the interprofessional teams). Higher resident satisfaction was evidenced by a 7–20% increase in residents rating their experience “excellent.”

**Home bound older adults:** After the student interprofessional teams working in a FQHC identified home-bound older adult patients with uncontrolled high blood pressure, interprofessional teams helped reach 93 clients to schedule return appointments; 35 patients returned to the clinic; and of these, 15 patients achieved blood pressure control with two referred to a specialist; 37% implemented a lifestyle change, 19% had a change in medication therapy, and 44% received medication and lifestyle change adherence counseling.

**School based health clinic:** This initiative expanded services to an existing public school-based health clinic by providing comprehensive, interprofessional services to an underserved population of students with complex health issues. In the first semester of enhanced services a total of 116 students were seen with an increased percentage of students being able to return to class (i.e., from 84% to 91%) helping to reach the goal of keeping students in school and decreasing absenteeism.

**University-based ambulatory care clinic:** Patient surveys at the new campus interprofessional ambulatory care clinic established to serve primarily refugee and racial minority populations with complex problems showed the clinic rates in the top five clinics in the entire health system for patient satisfaction and “likelihood of recommending clinic to others.”
Community-based ambulatory care clinic: Interprofessional teams of students from nursing, pharmacy, and social work and their preceptors enhances care for the most complex clinic patients with challenging conditions. Many of the patients served are high-risk, underserved refugee population. With the implementation of interprofessional teams, patient indicators for diabetic control (HgbA1c levels) decreased and an increased number of patients were identified with depression or another mood disorder and successfully treated with medication and/or referred to follow-up with a mental health provider.

Public housing development primary care: Since the new on-site health clinic at the housing development has opened with interprofessional student teams, patient surveys indicate people served at the clinic prefer the new interprofessional clinic over previously visited primary care clinics. Patients are highly satisfied with the availability of services, care and health education provided. The convenient location and willingness to provide treatment regardless of the ability to pay have resulted in measurable evidence of improved access to care.

Skilled nursing facility: This initiative utilizes interprofessional teams to address the health risks that patients face when they transition from a hospital to a skilled nursing facility (SNF) due to the wide array of medications prescribed by multiple providers. Re-hospitalizations are frequent. Interprofessional teams of students, their preceptors, and SNF staff complete a comprehensive patient assessment and medication management plan with appropriate changes made to decrease serious adverse health effects. The first cohort of interprofessional student and preceptor teams were able to successfully discontinue inappropriate medications on the Beers Criteria for Potentially Inappropriate Medication Use in Older Adults, adjust dosing, and appropriately add needed medications correlated with lab results. No adverse events occurred for residents seen by the interprofessional teams in the first 30 days of the initiative.

Impact #3: Progress toward potentially reducing cost in health care delivery

Residential substance abuse treatment center: Since the inception of the onsite services provided by this initiative’s interprofessional care management teams (less than one year), an $83,000 salary savings was realized for the residential substance abuse treatment center. Due to the successful implementation of the interprofessional primary care and health promotion teams, the substance abuse treatment center built a new clinic at one of its sites, and the business model will incorporate direct care billing, cost of care reduction incentives, and community site placement compensation.

University-based ambulatory care clinic: Serving high-risk patients with the interprofessional model of care is showing an impact in reduction of Emergency Department (ED) visits, decreased hospitalizations and decreased diabetic markers (HgbA1c levels) with the potential reduction in total charges for the patient population evaluated. The first cohort of high-risk patients continues to have sustained rates of decreased ED visits, hospitalizations, and HgbA1c levels. A new cohort of high-risk patients is being tracked to evaluate for replication of outcomes.

Community-based ambulatory care clinic: In the high-risk underserved refugee population, hospital emergency department visits decreased, from six (6) in the six months prior to implementation of the interprofessional team clinics to one (1) in the six months after, representing lowered cost.

Impact #4: Progress toward impacting the health system

Residential substance abuse treatment center: The education-community partnership worked to plan and build a new integrated primary care clinic, including clinic space, supplies, scope of services,
Students are adding value and contributing to system change by contributing to the development of a new Infectious Disease Screening and Treatment protocol. Students contributed to planning for the addition of a laboratory in the new corporate office building to identify infectious disease, providing a unique opportunity to treat individuals at the time of residential admission, as opposed to waiting until they access the clinic.

University-based ambulatory care clinic: The collaborative care model with interprofessional teams implemented at the opening of this new clinic is fully embedded into the clinic with the impact on high-risk patients being tracked. This is allowing the work and interventions to continue beyond the grant period. The interprofessional collaborative care model has contributed to improved employee satisfaction at the clinic. The clinic moved to #1 in staff engagement when previously, the clinic was in the bottom 2/3 in staff engagement throughout the system.

Public housing development primary care: A registered nurse was hired to provide chronic disease management and health care coordination services (via referral and/or telehealth), and third party billing has been implemented. Rates and payment for services is designed to address the economic status of diverse populations who are considered medically underserved. Students are adding value and contributing to system change which has resulted in the establishment of a satellite primary care clinic in a housing authority property housing elderly and disabled residents. Another system change was the creation of an after-school program to address childhood obesity. School of Business students examined business and financial aspects of the clinic in their programs. Department of Communication Studies students completed programs focused on health literacy at the clinic.

Impact #5: Progress toward impacting student learning and current workforce development

Community organization: The education-community partnership has brought together an interprofessional team that is educating the current and future workforce through integration of oral health throughout the curriculum, interprofessional faculty development workshops, and collaboration in training of home health aides to provide them with the oral health education needed in caring for older adults at home. The IPE learning is now embedded into the Common Health Problems graduate nurse practitioner course which includes IPE with dental students. Pre and post survey data demonstrate a significant mean increase in all domains of interprofessional competencies including communication, collaboration, roles and responsibilities, collaborative family centered approach, conflict management, and team functioning.

Skilled nursing facility (SNF): Adult Gerontology Advance Practice Nurses helped develop eLearning Modules used to educate students and skilled nursing facility staff. Modules are available to other students as well. Student surveys pre and post e-Learning Module and comprehensive geriatric assessment indicated improvement in overall collaboration, communication, accountability, understanding of each other roles, and dealing with conflict.

Rural primary care practice and urban geriatric home care programs: Ambulatory clinic (3) and urban geriatric home care: With this initiative, the university leveraged existing education-community partnerships to bring nursing students into interprofessional geriatrics clinical experiences. Students learned about the importance of social determinants of health in the care of older adults through an interprofessional curriculum. Curriculum additions for authentic clinical experiences with team-based care of a geriatric population focused on social determinants of health. The program is seeing favorable trends in interprofessional competencies, greater awareness of roles and responsibilities of other team members, greater awareness/insight about the capacities and needs of older adults living in the community. At the end of the two-years, there was an impact on student knowledge across professions including students' application of their knowledge of social determinants of health.
health in the clinical setting through the type, quality, and quantity of questions asked during history-taking and through the client-centered plans of care they develop.

**Impact #6: Progress toward impacting the education system**

**Skilled nursing facility:** This initiative resulted in a new and deeper integration of IPEC competencies into curriculum in the Adult Gerontology Advanced Practice Nursing and PharmD programs.

**Public housing development community services:** The success of interprofessional teams over the course of two years in the public housing development has caught the attention nationally and the education system is experiencing a growing role in training other universities to successfully launch and run similar teams. It is seeing a growth in the number and breadth of student participants and faculty advisors. The program is now embedded in curricula across all health sciences programs through course requirement and as stand-alone electives.

**University-based ambulatory care clinic:** The education partner is fully embracing interprofessional education by threading IPE Core Competencies through all of the health sciences curricula and requiring all health science disciplines to take an online IPE foundations course and follow-up with application activities. All students complete three required application activities within a passport system. The collaborative care clinic is one of the experiential learning activities offered to students as an authentic clinical IPE experience. Additionally, critical analysis and the development of a new centralized health compliance process for the entire university that will phase in over the 2019-2020 academic year for all eight health profession programs. The new system will enhance the student onboarding process. Student assessment was reworked to assess students experience in the collaborative care clinic. The team is exploring options to expand the learning opportunities for other student disciplines.

**Home bound older adults:** There have been ‘spin-offs’ of the Accelerating Initiative grant focusing on the campus-level institutional changes of expanding IPE efforts: Open Campus Program - IPE is supporting a new campus-wide co-curricular interprofessional program for all first-year health professions students and will include specific training opportunities for students to learn about community engagement. There is increased, sustained commitment for community health students and the addition of undergraduate students, which allows for reach beyond the clinic via the home visit program. It also provides an opportunity for undergraduate students to work with Advance Practice Registered Nursing (APRN) students directly, as well as with students from pharmacy, dentistry, and behavioral health.