

Background

Access to quality and affordable health care is positively influenced by interprofessional and patient-centered models of care. The World Health Organization (WHO), Institution of Medicine (IOM), Affordable Care Act (ACA), and Healthy People 2020 all identify a common challenge in providing health care “to all”. The Centers for Disease Control (CDC) reports that 12.8% of adults between the ages of 19-64 have no health insurance.¹ Another 31 million have such high out-of-pocket costs or deductibles relative to their incomes that they are designated underinsured.² The uninsured and underinsured are culturally diverse, working families that often live at or below the poverty level.^{2,3} Healthcare literature provides ample evidence that uninsured adults are less likely to receive preventive and screening services. East Alabama has been designated as a shortage area for primary care and even under the ACA, 16% of adults in Alabama remain uninsured.^{4,5} It is evident that the growing shortage of health care professionals, especially those serving our most vulnerable populations in underserved communities, escalates the barriers to health care access.

Many opportunities exist to address health disparities of this underserved population. One opportunity is to offer free or reduced cost services to the uninsured or underinsured. Additionally, another opportunity to address disparities is to develop interprofessional collaborative relationships within the community.

Objectives

The mission of the Community Health Investment Program (CHIP) is to increase access to and enhance health care services to the underserved residents in our community through interprofessional collaboration.

The objectives of project were to: 1) develop the infrastructure for an interprofessional team that consists of nursing and pharmacy to enhance health care to underserved populations, 2) pilot an interprofessional mobile approach that builds on the current initiatives of nursing and pharmacy and, 3) determine the impact of an interprofessional model as a means to educate future practitioners and its ability to provide sustainable outreach services.

Funding

Funding for this project was provided by a Auburn University Competitive Scholarship Outreach Grant

Methods

- Pharmacy and nursing team meetings were conducted to identify and schedule clinics at sites where the target population of uninsured or underinsured could be screened. Scheduling and organizing clinics was a shared responsibility of the faculty and graduate students involved in the project.
- A collaborative team of pharmacy students, undergraduate nursing students, nurse practitioner students and faculty provided biometric wellness screening and education that included body mass index (BMI), blood pressure, cholesterol, and blood glucose.
- The team then performed individualized medication reviews, adherence assessments, and patient counseling. Medications were evaluated for drug-related problems as well as safety and efficacy of the medication regimen.
- Finally, the patient received an advanced physical exam by the nurse practitioner student and/or faculty.
- See Figure 1 for clinic flow.

Results/Outcomes

CLINICS

Twenty-five clinics were conducted from October 1st, 2015 through April 18th, 2016 in a variety of settings including:

- Low income housing complexes
- Rural churches
- Career readiness programs
- Addiction recovery programs
- Food banks
- Rural libraries

Additionally two clinics were conducted through participation in a parish nurse organized Hispanic Health Fair.

FIGURE 1: CLINIC FLOW



Results/Outcomes

TABLE 1: PATIENT DEMOGRAPHICS

Total patients served	Ethnicity*	Age Range	Gender	Primary Care Provider?	Insurance#	Significant biometric findings [^]
250	CA=32% AA= 54% HA=16% Asian=1% Other=1%	18-94 years	M= 35% F= 65%	No = 40%	None = 17% BCBS = 30% Governmental ACA = 1% MD = 19% MC = 32% Other = 11% UR = 7%	↑ SBP = 39% ↑ BMI = 73% ↑ WC = 66% ↑ TC = 23% ↑ BG = 24%

[^] Elevated value; * Ethnicity: Caucasian (CA), African-American (AA), Hispanic (HA)
Insurance: Affordable Care Act (ACA), Medicare (MD); Medicare (MC); Unrecorded (UR)
[^] Significant biometric findings: Systolic blood pressure (SBP), Body Mass Index (BMI); Waist circumference (WC); Total cholesterol (TC); Blood glucose (BG)

COST AVOIDANCE

Preventive health screening and biometric data was obtained by the undergraduate nursing students. If these activities were performed in a fee-for-service setting it would be billed as a “nurse visit” at \$60/visit. Over the course of the project 237 individuals participated in these services at a cost saving of \$14,820. Graduate Nurse Practitioner students/faculty performed comprehensive history and physical examinations for 195 patients over the project implementation. Like services would be billed at \$150-200/visit in a clinic setting. This can be seen as a cost savings of approximately \$34,125.

Cost savings due to student pharmacist interventions have been estimated based on published cost savings models for pharmacy services. Student pharmacists have documented the following interventions while completing medication therapy reviews: prevention of ADRs, clarification of drug allergy information clarified, education for durable medical equipment, education for disease state management, identification of interactions (disease/drug/food/lab), adjustment of drug therapy, discontinuation of drug therapy, recommendation of OTC drugs, referral back to a provider, and counseling for drug therapy. The estimated cost savings for the above pharmacy services is \$19,125.

Implications/Future Directions

Health professions schools are looking for ways to address interprofessional education accreditation mandates while providing meaningful patient interactions that expose students to progressive models of patient care. Interprofessional education activities for schools of pharmacy located outside of major metropolitan areas and not on health science center campuses have posed challenges. A mobile health clinic model that provides a needed service to the community and engages students from multiple disciplines has the potential to provide a service learning activity that allows students to learn about, from, and with each other in an introductory experiential setting. Results of this project generated valuable assessment data on service learning as a means to provide impactful interprofessional experiences and patient care. Future partners include the newly established Doctor of Osteopathic Medicine program that opened its Auburn campus in fall of 2015. The pilot data obtained from the project helped to lay the groundwork for further extramural grant-funding opportunities.

References

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Left: Interprofessional clinic team; bottom left: Vitas/intake station; bottom right: NP student performing ROS/PE

