

New education models for preparing pre-licensure students for community-based practice



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Introduction

In the United States, the underpinnings of the nursing practice within community date back to the 1890's with Lillian Wald and her public health work in the tenement houses of New York City. The success of these early community and public health nurses was informed by their ability to respond to the needs of populations who were at greatest risk through disease management and more importantly, by providing health promotion education for prevention of disease entities (Kub, Kulbok, & Glick, 2015; Zerwekh, 1992).

Despite the profession's strong history in addressing public health needs, promoting health and preventing disease, pre-licensure nursing education remains primarily focused on preparing new graduates for practice with a disease management focused care orientation in acute care practice settings. Even the integration of simulation as an educational strategy often emphasizes this acute care oriented model of nursing care.

The Institute of Medicine's, *Future of Nursing Report* (2010) validated this perception and posited that most of nursing education revolves around acute care nursing rather than community-based and primary care settings. While baccalaureate nursing programs still include some level of exposure to community and population focused

nursing practice, nursing education has largely moved away from traditional nursing concepts of prevention and health promotion. The client and health system needs within today's healthcare paradigm require undergraduate nursing education to return to its roots with an increased emphasis on nursing care being delivered in community-based and primary care settings. The current model of pre-licensure education with an emphasis on acute care knowledge acquisition has been shown to be inadequate for dealing with the realities of today's health care environment (Ezeonwu, Berkowitz, & Vlasses, 2013; Institute of Medicine, 2010).

This article summarizes the experience of nine schools implementing an educational experience for prelicensure BSN students focusing on the role of the registered nurse (RN) in primary care and community-based settings in underserved environments. This effort was supported by a two-year grant from Health Resources and Service Administration (HRSA). The grant provided funding for two years and because the outcomes and the experience of the students have been so rich, all nine institutions funded under this grant continue to sustain the expanded opportunities for undergraduate students. The experiences and models differed in the various settings, but all gave students the opportunity to start to develop the expanded skills needed to fulfill emerging roles for nurses in primary care and community settings.

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Health utilization data indicate that about 5% of Americans are responsible for nearly half the country's medical spending and the top 1% account for 21.8% of national healthcare expenditures, much of which is chronic illness related (Weissmann, 2012). Eighty six percent of the nation's health care expenditures are for patients with chronic and mental health conditions (Centers for Disease Control and Prevention, 2018). The advent of value based reimbursement, particularly driven by the Centers for Medicare and Medicaid Services (CMS) has created new definitions of population health beyond the traditional public health definition. Efforts to reduce healthcare costs by promoting prevention and maintenance of health and addressing the social determinants of health, as part of the solution, are being emphasized (Thorton & Persaud, 2018).

Health system reforms, such as the creation of Accountable Care Organizations (ACOs), Patient Centered Medical Home (PCMH) designations, bundled payment methodologies and health information technology enhancements have created a need for a population health focus in delivery of community-based and primary care (Moody's Analytics, 2017). Additionally, increased access to health insurance through the Patient Protection and Affordable Care Act (2010) along with an aging population, many of whom are living with chronic diseases, resulted in increased demand for the expanded primary care services and require a qualified primary care workforce with new skill

sets to respond to these needs.

These factors substantiate the need for highly trained teams of health care providers to promote population health in community-based and primary care settings. Central to the team is a well-prepared RN who functions at the top of license practice who brings a holistic approach to addressing the outcomes identified in the quadruple aim of health care which focuses on the collective health care experience by improving the patient experience, supporting positive outcomes, enhancing cost-effectiveness and improving the work life of health care providers, including clinicians and staff (Berwick, Nolan, & Whittington, 2008; Bodenheimer & Sinsky, 2014). The RN is a valuable team member that can engage in patient centered care management activities to promote patient self-management of chronic diseases and support this new focus on population health. In addition, team based care provides the registered nurse with opportunities for leadership roles. The Josiah Macy Foundation report (2016) *Registered Nurses: Partners in Transforming Primary Care*, posits the expansion of roles for registered nurses in community-based settings will lead to greater satisfaction and less burnout among RNs as well as other members of the team.

Answering the call of the Josiah Macy Foundation's recommendations, along with the advent of value based reimbursement and patient centered primary care homes, provides opportunities for new and

Table 1
AACN's (2013) Recommended Baccalaureate Competencies and Curricular Guidelines for Public Health Nursing.

Essential	Public Health Nursing Competency
I) Liberal Education for the Baccalaureate Generalist Nursing Practice	Utilize the social and ecological determinants of health to work effectively with diverse individuals, families and groups. Explain factors contributing to the cultural diversity that affect individuals and the family in society to diverse stakeholders including policymakers, regulators, practitioners, and community members.
II) Basic Organizational and Systems Leadership for Quality Care and Patient Safety	Apply systems theory to PHN practice with individuals, families and groups. Participate with stakeholders to identify vision, values, and principles for community action. Maintain knowledge of current laws and policies relevant to public health.
III) Scholarship for Evidenced-based Practice	Identify the determinants of health and illness of individuals and families using multiple sources of data. Use epidemiological data and the ecological perspective to identify health risks for a population. Participate in research activities such as data collection at the community level to build the scientific base of public health nursing.
IV) Information Management and Application of Patient Care Technology	Access to public health and other sources of information using informatics and other technologies. Assess data collected as part of the community assessment process to make inferences about individuals, families, and groups. Identify gaps and redundancies in data sources in a community assessment through work with individuals, families and communities. Apply ethical, legal, and policy guidelines and principles in the collection and maintenance, use, and dissemination of data and information. Understand methods and practices used to identify and access public health information for individuals, families and groups.
V) Healthcare Policy, Finance, and Regulatory Environments	Describe the structure of the public healthcare systems. Identify public health policies, laws and regulations relevant to PHN practice. Identify the impact of the system on individuals, families, and groups. Describe various approaches used to implement and improve public health processes and systems.
VI) Interprofessional Communication and Collaboration for Improving Patient Health Outcomes	Participate as a team member in developing organizational plans to implement programs and policies: participates as a team member in evaluating programs for their effectiveness and quality. Communicates effectively in writing, orally, and electronically as a member of interprofessional teams. Apply basic human relations and conflict management skills in interactions with peers and other healthcare team members.
VII) Clinical Prevention and Population Health for Optimizing Health	Participate effectively in activities that facilitate community involvement in creating a healthy environment for individuals, families and groups. Collaborate with community partners to promote the health of individuals, and families within the population. Practice evidence-based public health nursing to promote the health of individuals, families and groups. Partner effectively with key stakeholders and groups in care delivery to individuals, families and groups.
VIII) Professionalism and Professional Values	Articulate the benefits of a diverse public health workforce. Demonstrate presentation of targeted health information to multiple audiences at a local level, including to groups, peer professionals, and agency peers. Articulate the roles of public health nursing to internal and external stakeholders. Identifies opportunities for population-focused advocacy for individuals, families, and groups.
IX) Baccalaureate Generalist Nursing Practice	Assess the health literacy of individuals, families, and groups served. Utilize and ecological perspective in health assessment, planning, and interventions with individuals, families, and groups. Use basic descriptive epidemiological methods when conducting a health assessment for individuals, families and groups.

expanded roles for RNs in ambulatory and community-based settings. These roles reimagine the currently existing model of care where RNs are primarily involved in triage activities, toward incorporation of new responsibilities in managing and promoting population health, engaging in care coordination and interprofessional collaborative work to support positive patient outcomes (Institutes of Medicine, 2010). Nurse educators need to be cognizant of these changes and adapt curriculum to prepare nurses for these evolving roles and settings.

The Department of Health and Human Services (DHHS), Health Resources Services Administration (HRSA) has recognized the need for baccalaureate nursing programs to develop innovative practicum experiences to help meet the emerging need for newly licensed registered nurses with competencies in care management, transition care management and population health. In, 2016, HRSA put forward a funding opportunity aimed at increasing the number of pre-licensure students entering community-based practice settings upon graduation. The funding opportunity, Bachelor of Science in Community Practicums (BSCP) solicited schools of nursing and other entities to develop education/training programs that combined didactic and experiential opportunities with new and existing community partners. A total of nine awardees received federal funding to execute these newly developed models of education over a two-year period. Each institution chose a unique pathway to meeting experiential and didactic goals, and outcomes were evaluated based on meeting these and other goals, such as working with medically underserved communities.

Methods

Didactic content

Each of the awardees proposed unique educational models for the projects, which were varied in scope, populations of focus, and geographic location. However, each included the development of sustainable educational models that assessed existing curriculum to determine

strengths and areas for opportunity related to content focused on: 1) social determinants of health; 2) health disparities/health equity; 3) cultural competency; 4) epidemiology; 5) community-based leadership, and 6) development of enhanced skills in the community-based setting. Some programs integrated new content through development of a stand-alone course, while others integrated content into existing curriculum offerings, and some programs utilized both.

The programs analyzed their existing curriculum for integrated and stand alone community, population, and public health concepts. Refinements were then made to bolster content to reflect the American Association of Colleges of Nursing (AACN) recommendations included in Table 1: *Public Health: Recommended Baccalaureate Competencies and Curricular Guidelines for Public Health Nursing; A supplement to the essentials of the baccalaureate Education for Professional Nursing Practice* (2013).

Additional guidelines to support curricular enhancements included the Quad Council (2011) and the Association of Community Health Nurse Educators' Essentials of Baccalaureate Nursing Education for Entry Level Community/Public Health Nursing (2009), which were based on the prior work of Carter, Kaiser, O'Hare, and Callister (2006). Additionally, some programs developed learning experiences to support competencies outlined in the Chronic Care Transition Management (CCTM) framework (2016), created by the American Association of Ambulatory Care Nurses. Lastly, some programs used guiding frameworks that addressed nuances to address specific needs of their program, certain health conditions, populations, and/or geographic region. Each program considered its individual state licensing requirements. These evidence-based resources served as a guiding conceptual framework to develop generalist curricula for community and public health nursing. Fig. 1 describes the Core Professional Values, Knowledge and Basic Competencies contained in the Essentials of Baccalaureate Nursing Education for Entry Level Community/Public Health Nursing (Callen et al., 2010).

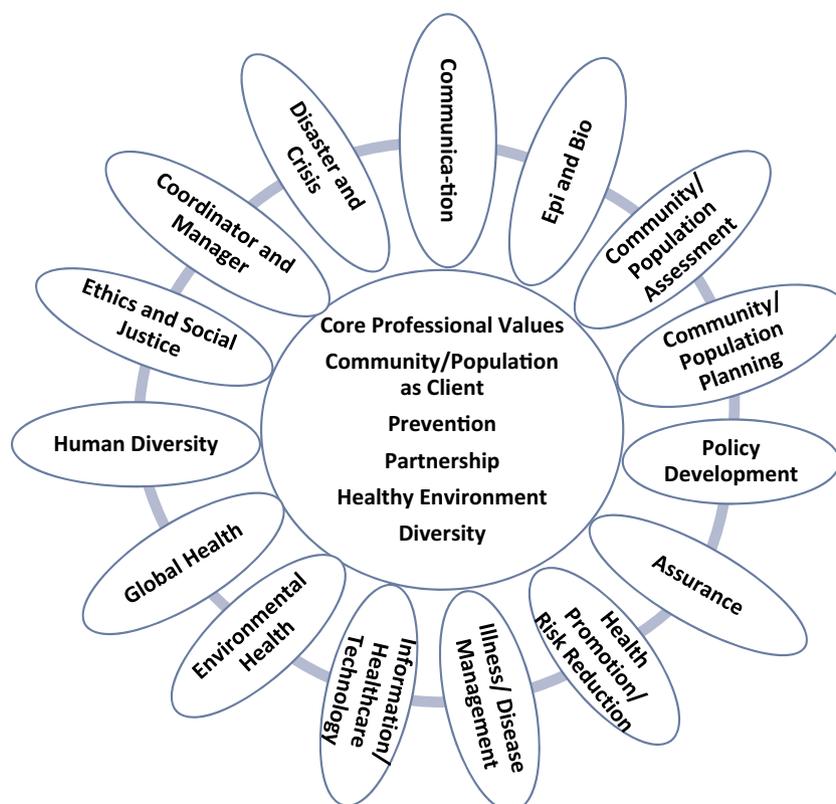


Fig. 1. Essentials of Baccalaureate Nursing Education for Entry Level Community/Public Health Nursing (Callen et al., 2010).

Table 2
Examples of activities within the grant programs.

State & population served in program	Semester placement	Competency	Course/s and/or content	Course activity Assignments/experiential	Type of clinic setting	Assessments and outcomes
Key Underserved = Und Vulnerable = Vul Rural = R Urban = U Hispanic/Latino = H/L Immigrant/refugee = I/R Native American = NA Elders = E Homeless = H Veterans-V	Key Year 1 A/B Year 2 A/B Year 3 A/B Year 4 A/B	Key ^a	Key Prior stand alone = PSA Stand alone = SA Enhanced practicum = SP Course integration = CI Disparities Cultural competence = CC Population health = PH # of EP students, NCLEX-pass rate	Key <u>Assignments</u> Readings = Read Videos = Vid Community assessment-CA Health promotion project = HPP Case study/care plan = CS/CP <u>Experiential</u> Direct care = DC Short-term observations = Obv Short term clinical = STC Long-term clinical = LTC Senior practicum = SP Service learning = SL Simulation = Sim Disaster relief = DR	Key Primary care = PC Federally qualified health center = FQHC Behavioral health = BC School = Sch Shelter = Shel Academic health center = AHC Academic nurse managed clinic = ANMC Free clinic = FC Case management-CM Senior living = SL Indian health service = IHS	Key Community assessment-CA Reflective journals = RJ Reflective discussion-RD Practicum evaluation = PE Clinical evaluation-CE Simulation evaluation-SE Exams = E Self-assessments = SA Group work-GW
Southeast-A, Tennessee: Und, Vul, Rural, H/L	Year 4 B	CCTM ACHNE	PSA, EP 76 students, 93.9%	Read, Vid, CA STC, Obv	PC, FQHC, Sch, rural health, behavioral health, public housing health clinic	RJ
Northeast, Maine: Und, Vul, U, I/R, E, H	Year 2 B Year 3 A/B Year 4 A/B	ACHNE AACN-PHN QUAD CL	PSA, SA, CI, PSA, EP Pop Health Disparities 18 students, 100%	DC, Read, Vid SP, SL	PC, FQHC, Shel	RJ, PE, E
Southeast-B, Northern Virginia: Und, Vul, U, I/R, H	Year 1 B Year 2 A/B Year 3 A/B Year 4 A/B	ACHNE AACN-PHN CCTM	PSA, CI, EP Pop Health 81 students, 100%	Read SP, SL	PC, ANMC, Sch, BH	RJ, PE
Southeast-C, Central Virginia: Und, Vul, U, I/R, H, H/L, E	Year 4 B	QUAD Council CL S/S PHN HSC	PSA, CI, EP CC, PH, IPE 16 students, 100%	CS/CP, HPP, CA, Read STC, LTC, SP, Sim, SL, DC, DR	PC, AHC, FC, BH, SHEL, Sch, SL	SA, RJ, RD, PE, CE, SE, SA, GW
Southeast-D, North Carolina: Und, Vul, R	Year 4 A/B	ACNHE AACN-PHN CCTM	SA, SP 35 students, 100%	Read DC, LTC, SP, SL, Sim	FQHC, CM, SL	RJ, RD, SA, SE
Southwest, New Mexico: Und, Vul, R, NA	Year 4 A/B	AACN-PHN ACHNE QUAD	EP PH, CC 51 students, 100%	CA, R, Vid STC, LTC, SL	IHS, PC	CA, RD, PE, GW
Pacific, California: Und, Vul, R, V, H,	Year 4 B	ACHNE AACN-PHN CCTM QSEN	CI, SA, EP Disparities 82 students, 90%	Read, HPP, CA, CS/CP DC, SP, SL, Sim	FQHC, VA, PC, Shel	RJ, CE, CA, RD. PE. SA

^a [Quad Council Competencies \(2018\)](#) = QUAD Council.
[Association of Community Health Nurse Educators \(2009\)](#) = ACHNE.
 American Association of Colleges of Nursing-Public Health Supplement = AACN-PHN.
[Care Coordination and Transition Management Competencies \(2016\)](#) = CCTM.
[Henry Street Consortium Population-based Competencies \(2011\)](#) = HSC.
 Council on Linkages Between Academia and Public Health Practice = CL.
 Scope and Standards Public Health Nursing, [American Nurses Association \(2013\)](#) = S/S PHN.
 Quality and Safety for Education in Nursing ([Cronenwett et al., 2007](#)) = QSEN.

Experiential clinical education

Components for experiential education included integrating community-based experiences in new or existing clinical sites, adding community-based practicums in addition to the more traditional hospital-based acute care experiences, service learning experiences, immersion experiences, and more. [Table 2](#) describes the various activities and strategies in which programs integrated and developed stand alone

content within their respective curricula.

The settings for the clinical experiences varied, however the community-based nursing care the students provided met similar objectives. In each setting, the students had opportunities to holistically assess individual clients, to interact in an interprofessional, team based approach, and to partner with communities to deliver client-centered care. Students worked with faculty and community preceptors to develop plans of care that were focused on community-based needs, based

on assessment of each community. In addition, students performed technical skills which they may not have had an opportunity to perform in an acute care setting such as tuberculosis assessment and management, IM injections, nebulizer treatments, venipuncture for lab specimens, immunizations, epidemiologic disease tracking, and assisting providers with procedures. Other programs incorporated contemporary events to support service learning and interprofessional education and collaborative practice activities. For example, one event included emergency disaster response in Houston, Texas following Hurricane Harvey. Historically, emergency nurses have taken a front seat in disaster response but there is increasing evidence that there is an important role for nurses skilled in primary care, chronic care management, and working with elderly and economically disadvantaged patients to also have skills in disaster response (Yin & Tan, 2011).

Recruitment of student participants

BSN students in traditional 4-year, accelerated BSN and some RN-BSN completion programs were eligible to participate. Some recruitment efforts included an application and/or interview process and/or a minimum GPA requirement, while others were open to all students. It was important for all programs that the students had an inherent interest and passion for community and public health nursing. Curricular integration across programs included both stand alone courses, as well as an integration of the content and experiences into existing courses. Regardless of the how the content was delivered, all programs incorporated some level of curricular enhancement, added community based clinical hours, and a culminating RN precepted clinical immersion experience in a community-based setting. Table 2 above outlines target populations and settings, placement of these learning activities within the curriculum, and types of experience incorporated by the various programs.

Clinical environments and community partners

Access to health care for vulnerable and underserved populations in their geographic area was a tenet in the development of the community partnerships. Increasing the number of qualified RN's who enter practice within these settings and bolstering knowledge, skills and attitudes integral to chronic care and population health management were primary goals of grantees. While each of the partners provided care to populations who either had no or limited access to health care, the populations served ranged from the homeless, Hispanic and migrant farm workers to Native Americans and the elderly. The majority of the partnership locations were in rural settings, however several partnership sites were located in nurse managed urban housing authority clinics. The rural community partners were located in small rural towns in counties that had very limited access to primary care and no access to a pediatrician or OB/GYN services in the county.

Each program utilized new community clinical partnerships, or expanded upon existing relationships with local community-based clinical sites, using principles of community engagement. The emphasis on mutually beneficial partnerships was crucial to creating a truly collaborative experience for students and their preceptors. Mutually beneficial community partnerships that provide immersion experiences or service learning for students are particularly helpful in fostering collaboration (Wojnar & Whelan, 2017). Community partners, in general, find great benefit through the service provided by students in their respective community organizations (Riedford, 2011). While the relationships with community partners differed among the programs, each had at least one community site, with some having as many as seven sites. Several of the awardees included their community practice partners as members of the grant planning team, while others had a dedicated liaison from the school of nursing placed at the clinical site. Each of the community sites delivered primary care services, which may have included prenatal, mental health, infectious disease or other

ambulatory care services. For some sites, this involved population focused case management, for others, one on one focused case management occurred while patients were seen in the clinic, at home, in health and wellness consultation, in a health department clinic or during a hospitalization.

Practicum experiences occurred in different environments, with variation in both the clinical setting and geographic location. Clinical settings ranged from traditional physician-led primary care and specialty clinics to nurse led primary care clinics, Federally Qualified Health Centers (FQHC's) and elder care settings such as senior centers and senior independent living communities. Geographic locations also varied between urban, suburban, rural and frontier areas. The participating schools of nursing were spread throughout the country from the Northeast, Southeast, Southwest, Northwest, Southwest, and Pacific regions of the United States. Regardless of the clinical setting or geographic area, each of the grantees focused on vulnerable and underserved populations.

The student experiences in the various communities ranged from students being at the community site one day a week for a semester, to students being at the site for a block of time (1–12 weeks) in an immersion experience. The majority of the programs offered experiences embedded the community health clinical course. Several programs utilized the senior clinical practicum course as a culminating immersion experience through 2021.

Collaboration across grantees

The principle investigators, key personnel and staff from the schools held scheduled phone conferences on a regular basis with the HRSA Program Officer. The purpose of the meetings was to discuss progress toward objective achievement, challenges and successes. The peer-to-peer connection found more similarities than differences among the nine grantees and patterns began to emerge. These meetings were crucial in developing and improving our divergent approach to the grant objectives and strong inter-university relationships were formed. This collaboration across programs has fostered new relationships and ongoing collaboration. Three of the originally funded programs have received a second round of funding to continue to expand primary care focused experiences.

Importance of community partnerships

Community partnerships were cultivated in an intentional way and differ greatly from the traditional acute care model, whereby 6–10 students and a clinical instructor engage in clinical care of patients in concert with a nurse responsible for the patient's care. All programs agreed that these community partnerships took time, effort, and required tremendous planning and ongoing support. Each program was required to identify a partnership liaison to oversee the execution of the various experiences. For example, the clinical experiences could not produce the same ratio of clinical instructor to student activity. Many programs reduced these ratios by 75–80%, understanding that as the process became more streamlined, expansion could occur, particularly among sites where the preceptor to student ratios was 1:1. Ultimately, onsite preceptors took the primary role of working with students in each setting with the clinical instructor acting in a supervisory/consulting role.

Many of the partnering sites were local Federally Qualified Health Centers (FQHC) or other health centers operating with limited resources, so it was imperative that the clinical activity did not contribute to human resource burden and/or interrupt flow. While primary care sites may want to be a training site for health professions students, they are often functioning with limited resources, staff, and heavy work flow schedules. For example, while preceptors may have been identified by the health centers, the individual programs also identified, and in some cases hired, nurse educator/trainer/preceptors who worked closely

with the health center staff to ensure that the educational process was beneficial for all. The award provisions mandated a full-time community-based RN to serve as a liaison between the school of nursing and the clinics. In some instances, a faculty member with public health/community-based experience served as the liaison whose responsibilities included guiding preceptor training and support.

Faculty buy-in and preceptor training

In addition to adjusting the clinical ratios for instruction, the preceptor model also needed significant training adjustment. Faculty revised existing preceptorship models to the primary care setting and were active participants in the development of preceptorship objectives.

The development of these educational models needed to reach all members of the school of nursing faculty even those who were not intimately involved in the projects to support student recruitment to the programs. In fact, some schools found that faculty members who were not involved directly in the project served as recruitment ambassadors through the academic advisement process. Some programs trained their faculty at the beginning of the program, others offered development periodically over the course of the award period. Community partners, including preceptors, were invited and often participated in faculty development activities and in some cases, served as instructors for these trainings. Examples of these type of trainings are outlined in Table 3.

Curricular models

The majority of the programs had students at a community-based clinical site during their community health course. Although some faculty and students believe a community health clinical should be situated in a public health department, community health issues reach far beyond that setting, and though public health departments concern themselves with preventive care, that care is typically provided in a primary care setting. Far more people and populations seek care in a primary setting and students need to understand the emerging population health role of the RN in those settings as well as in the public health venue.

Students' perspectives

Regardless of when and where the student was in the community-based setting, they collectively reported the benefit of seeing first-hand the challenges patients have in managing their health and accessing health care. The students' ability to provide care to individuals and groups within the community settings was an eye opening experience which brought to light the importance of health care access, health promotion, prevention and management of chronic health conditions.

Overwhelmingly across programs, students felt the programming was valuable to their learning trajectory. One student commented “I

think it has provided important experiences in a variety of settings”, while another stated, “It raises awareness of the necessity and important of the RN role in the community.” While showing a significant shift from pre-licensure graduates initially working in an acute care setting to a primary care setting is difficult in just two years (the funding period), many students indicated that their intent to work in primary care and community settings was greatly influenced by their participation in these programs.

Barriers and challenges

One of the significant barriers encountered by most programs was the need for a culture change among faculty, students, clinical sites and potential employers. Overwhelmingly, all programs encountered ‘The Great Myth,’ which is that new graduate nurses must work in an acute/inpatient care setting prior to working in a community-based setting. This pervasive message, with little or no evidence to support it, was perhaps the greatest barrier for programs and most likely impacted program participant decisions to pursue employment in a community-based setting upon graduation (Shelton & Harrison, 2011; Phillips, 2014; Murray-Parahi, DiGiacomo, Jackson & Davidson, 2016). Following participation in the program, many students indicated interest or intent to work in a community based setting at some point in their careers, though few actually accepted these positions after obtaining licensure. As a result, some programs continue to monitor the employment status of student cohorts for up to one year after licensure. It is important to note that NCLEX-RN pass rates among all nine programs were above the national average (NCSBN, 2018). Additional research is needed to validate what skills may or may not be gained through acute care practice that cannot be attained through equally strong clinical exposure in primary care and other ambulatory care settings as part of the undergraduate educational experience.

At the heart of overcoming ‘the myth’ lies nursing faculty lack of awareness of reports such as the follow-up report of the National Academies of Sciences, Engineering, and Medicine (2016) calling for development of primary care expertise in nursing faculty and realignment of nursing curriculum to elevate primary care content in the nursing curriculum. Nursing faculty must understand the significance of educating students for full-scope of practice in primary care settings. Yet, many faculty continue to resist a shift in focus toward preparing students for community-based nursing practice. Learning how to promote behavior change in patients with chronic conditions or to adjust medications according to practitioner-written protocols or leading teams to improve the care and reduce the costs of complex patients (Bodenheimer & Mason, 2017) is equally, if not more important than tasks such as learning to start an I.V. or insert a nasogastric tube. Working to promote the career development of nurses in primary care and redesigning primary care practices to use nurses to their full potential (Thibault, 2017) are other strategies to overcome ‘The Great Myth.’

A significant barrier initially was finding RN preceptors in the settings that were practicing at the top of practice and had developed the expanded role of the RN. Many clinics and other primary settings operate with only medical assistant due to financial concerns. We are just beginning to have conversations about the financial value of the RN role. More research and publication into how the expanded role of the RN is financially viable and desirable needs to occur quickly. Sharing of job descriptions, and specific top of license RN interventions for this expanded role will also support the implementation of having RN practice in primary care.

Another culture barrier is the focus by most academic nursing programs on preparing students to work in hospital based care. There has historically been lower value placed on developing student skills in managing chronic disease and the intricacies and nuances of primary care and population health (Josiah Macy Foundation, 2016). As a result, didactic and clinical components had to be developed or

Table 3
Examples of faculty development (FD) and community partner trainings (CP-T)

Development and training offerings	FD	CP-T
Integrating population health content through the use of dashboards	X	
Epidemiology is everywhere (using descriptive epi in teaching)	X	
TeamSTEPPS-Limited English Proficiency	X	X
The enhanced role of RN's in primary care	X	X
Faculty and preceptor clinical/preceptor training for community settings	X	X
Academic/community clinical partnerships-development of designated education units (DEU)	X	X
Preparing students to train in public health and primary care	X	X
Concepts of care management	X	
Telephonic monitoring and management	X	X
Motivational interviewing-concepts of teaching and usage	X	

augmented and implemented as stand-alone courses or by integrating this content across the curriculum.

Lessons learned

The opportunities for the schools involved in these projects have been tremendous. The synergy and focus on providing community health nursing curricular and clinical education among the grantees was a driving force in disseminating the importance of undergraduate community health nursing education and the need for collective advocacy to overcome these identified barriers to these needed changes in the focus of undergraduate nursing education.

Specific lessons varied from curricular design, faculty buy in, and clinical site capabilities to student expectations. The focus on community-based care didactic and clinical experiences did not negatively impact NCLEX® pass rates and student evaluations demonstrated they were acquiring new knowledge, skills and critical thinking abilities. For some programs, improvements in faculty “buy in” were realized while others struggling for faculty adoption developed refined methods of training. The clinical site and preceptors required grant faculty to be responsive to concerns identified in the community sites. Having seasoned faculty experienced with the didactic and clinical components assisted in meeting grant and course goals.

There were several “Pearls of Wisdom” realized by all awardees. We know that our graduates are encountering complex patients no matter where they are choosing to work post-graduation. In order to prepare them for taking a lead in improving the health of these patients, they must have practical and increased experience in caring for these populations outside of a hospital setting, during their formal nursing education. *Wojnar and Whelan (2017)* report that only about 20 nursing programs in the US offer ‘a robust primary care curriculum.’ The community/population health and care management competencies should be applied in all clinical rotations and introduced in the first semester of their undergraduate nursing coursework. Nursing programs should be working to formally implement these as a part of the core curriculum in undergraduate nursing programs and not simply as adjunctive in a single community course.

Each of the programs have universally stated that their institutions have gained an increased understanding of the RN role in primary care and we hope that these lessons learned can be of benefit to others as they embark on similar initiatives. The intent for each awardee was to continue with a sustainability plan that takes these projects from annual opportunities for students over the two-year project period to curricular offerings long-term. Additionally, there was a significant level of co-learning that occurred between the grant awardees. Routine monthly conference calls between the awardees and the program officer resulted in a fellowship and camaraderie that provided ideas and enhancements to all programs that fit within the established objectives. It has also led to dissemination opportunities as exemplified in this paper.

Implications for practice and next steps

As health care moves into the community with an emphasis on wellness and prevention, it is paramount that nursing education includes expanded didactic and clinical community health learning experiences. Opportunities for students to learn about nursing practice in primary care and community settings need to exist from the start to the finish of the student's prelicensure educational experience. Identifying and then nurturing partnerships between schools of nursing and community primary care settings requires time and energy. Having faculty champions to do this work is helpful. Ongoing opportunities for faculty to deepen their knowledge and expertise in primary care and community nursing must also continue.

Future empirical study is needed to assess student readiness for licensure, community based skill knowledge and acquisition of skills for competent practice. In addition it is paramount to identify outcomes of

educational initiatives to support student, faculty, clinical site and future employers' buy in. Longitudinal studies that are informed by the *Institute for Health care Improvement's Quadruple Aim (2016)* will assist in determining the value of moving the education paradigm from acute care to health prevention, promotion and care coordination.

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