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Enhancing Community-Based Clinical Training Sites: Challenges and Opportunities

Advisory Committee on
Interdisciplinary,
Community-Based Linkages
(ACICBL)

16th Annual Report to the
Secretary of Health and
Human Services and the
U.S. Congress

Advisory Committee on Interdisciplinary, Community- Based Linkages (ACICBL)

Enhancing Community-Based Clinical Training Sites: Challenges and Opportunities

Sixteenth Annual Report to the
Secretary of the U.S. Department of Health and Human Services
and the U.S. Congress

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The views expressed in this report are solely those of the Advisory Committee on Interdisciplinary, Community-Based Linkages, and do not represent the perspectives of the Health Resources and Services Administration nor the United States Government.

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Each year, the ACICBL selects a topic concerning a major issue within the healthcare delivery system that is relevant to the mission of the Bureau of Health Workforce (BHW) Title VII, Part D, Interdisciplinary Community-Based Linkages programs. After the ACICBL analyzes the selected topic, it develops and sends recommendations to the Secretary concerning policy and program development. In 2016, the ACICBL examined ways to enhance community-based clinical training sites and identified challenges and opportunities.

This report is the culmination of the efforts of many individuals who provided their expertise to the ACICBL over the course of several meetings in 2015 and 2016. As noted throughout the report, experts informed the ACICBL and responded to a broad array of issues related to the clinical training of students across a wide range of health professions, access to clinical training sites, and the availability and preparation of clinical preceptors. The members of the ACICBL express appreciation to all presenters for their time and expertise.

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Sincerely,
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Executive Summary

The preparation of students in all healthcare disciplines relies heavily on clinical training. While the classroom education of these students generally covers a range of health and social sciences, didactic instruction is not sufficient. Students need to experience direct interactions with the individuals, families, groups, and populations that they will be caring for when they enter professional practice.

Clinical training allows students to directly observe clinicians in practice, apply their didactic learning, hone their decision-making skills, and begin to develop a professional identity. While classroom education and controlled learning experiences provide essential background knowledge and basic skills, clinical experiences deliver the most value to students, as well as to the clinical settings that will employ them after graduation.

However, many health professions schools and programs are facing challenges in providing high-quality clinical training. Enrollment in virtually all health professions programs is growing, while changes in the healthcare system are leading to consolidation of hospitals and a decline in traditional training sites. To expand the number of sites, schools and programs must begin to look at smaller, non-traditional sites such as community-based clinics. However, such sites often lack the resources needed to accept students and provide a broad range of clinical experiences.

In addition, the expansion of sites for clinical training may include more rural, remote, or other locations difficult to access. These sites offer benefits of exposing students to the unique needs of a wider range of populations. However, students who desire to train in a rural or other distant location may face barriers such as the need for transportation and lodging, while rural clinics and other settings often have difficulty accommodating the learning needs of students.

In clinical training, the student typically works closely with a preceptor, a practicing clinician taking on the additional role of educator. Precepting places significant demands on the clinician, decreasing both personal productivity and the financial performance of the clinic. New methods to attract, prepare, and sustain preceptors are needed.

Given these challenges, there is a need for a National Center, patterned on the model of other successful HRSA Centers, to oversee the development of clinical training sites. This Center would be charged with providing the coordination, leadership, evidence, and resources needed to guide health professions schools and academic centers, training hospitals, and community health settings in improving access to and the quality and safety of clinical training sites.

The recommendations provided in this 16th report of the ACICBL are intended to address the challenges facing health professions schools in developing new clinical training sites, assisting students in accessing rural or other distant clinical sites, and providing incentives and support to increase the number and promote the quality of preceptors.

ACICBL Recommendations

During its meetings in 2015 and 2016, ACICBL reviewed issues related to community clinical training sites, student access, and community precepting. The Committee's recommendations are designed to strengthen the role of the HRSA in its support of health professions education and training and to broaden access to high-quality health care in underserved and rural areas.

Recommendations

1. ACICBL recommends that HRSA support the development of a National Center for Clinical Training Site Development. The National Center would:
 - a. develop best practices for clinical training in the health professions which would be disseminated across training sites;
 - b. encourage clinical sites to foster capstone research projects that improve the quality and safety of patient care, and enhance the learning experience of the trainees;
 - c. work with non-traditional partners to develop new clinical training sites and simulation centers; and
 - d. create opportunities for preceptor training and enrichment.
2. ACICBL recommends HRSA work with other federal agencies as well as private entities to provide monetary and non-monetary incentives for preceptors. These incentives could include payments for teaching, access to training and career advancement, faculty appointments, or a preceptor income tax exemption.
3. To facilitate the exposure of students to a wide range of clinical training sites in rural and underserved areas, ACICBL recommends a legislative change allowing HRSA to permit all Title VII, Part D, grantees to provide support for students through stipends and/or traineeships, as well as scholarships for disadvantaged students. Students should also be eligible to receive funding to cover travel and housing expenses when participating in clinical experiences located in rural, remote, or frontier settings or areas with limited access, if this expense would be required for success.

Introduction

The preparation of students in all healthcare disciplines relies heavily on clinical training. While the classroom education of these students may cover health sciences such as anatomy, physiology, pathophysiology, and pharmacology, as well as concepts of communication, social welfare, epidemiology, and population health, didactic instruction alone is not enough. These students need the experience of direct interactions with the individuals, families, groups, and populations that they will be caring for when they enter professional practice.

However, many health professions schools and programs are facing challenges in providing high-quality clinical training. These programs have typically relied on teaching hospitals, often associated with academic medical centers, as the primary site of clinical training. With changes in the healthcare system, there is a growing trend toward providing care outside of the hospital, in smaller community-based clinics. The training of health professionals will have to keep pace with this trend by broadening opportunities for clinical experiences to include these clinical practice sites. However, such settings often lack the staff and resources of a major hospital and may be ill equipped to take students or to offer them a full range of experiences.

In addition, the expansion of sites for clinical training may include more rural, remote, or other locations difficult to access, exposing students to the unique needs of populations living in these areas. However, students desiring to train in a rural or other distant location may face barriers such as the need for transportation and lodging, while rural clinics and other settings often have difficulty accommodating the learning needs of students.

In clinical training, the student typically works closely with a preceptor, a practicing clinician taking on the additional role of educator. Precepting places significant demands on the clinician. It may require that the preceptor devote extra time to teaching, which may reduce the number of patients the clinician can see, impacting both personal productivity and the financial performance of the clinic. Many preceptors are not compensated for their role in teaching, or receive only small, token payments that rarely cover the true expenses of teaching. There are concerns about the shrinking number of qualified preceptors, and efforts are needed to attract more clinicians to this role.

The recommendations provided in this 16th report of the Advisory Committee for Interdisciplinary, Community-Based Linkages (ACICBL) are intended to address the challenges facing health professions schools in developing new clinical training sites, assisting students in accessing rural or other distant clinical sites, and providing incentives and support to increase the number and promote the quality of preceptors.

Clinical Training in the Health Professions

Clinical training is a vital component of the education of virtually all healthcare professionals, serving as a bridge between learning in the classroom and the responsibilities and realities of the workplace. A clinical placement provides the opportunity for students to observe clinicians in practice, apply their classroom knowledge, and develop ethical and moral decision-making skills in providing patient care as they begin to assume their professional identity (Romig, Tucker, Hewitt, & Maillet, 2016).

Clinical training has been defined as “the practice of assisting a student to acquire the required knowledge, skills and attitudes in practice settings...to meet the standards defined by a university degree structure or professional accrediting/licensing board” (Rose & Best, 2005, quoted in Romig et al., 2016, p. 244). While classroom education and controlled laboratory and simulation experiences provide essential background knowledge and basic skills, clinical experiences deliver the most value to students, and to the hospitals and other clinical settings that will employ them after graduation (Sepples, Goran, & Zimmer-Rankin, 2013).

Clinical training involves placement of a student at a clinical site under the supervision of a practicing clinician serving as a preceptor. This model provides the student with real-life experiences that work toward developing students into confident and competent practitioners. Some of the goals of clinical training are to help the student:

- Apply theory and learning to clinical practice,
- Orient to professional behaviors and attitudes in the clinical workplace,
- Hone and refine, through observation and repetition, the skills required for clinical practice,
- Develop communication and collaboration skills to function within an interprofessional healthcare team, and
- Develop skills in critical thinking, problem-solving, and time management in the fast-paced clinical setting (Romig et al., 2016).

Educational models

While each healthcare discipline trains students according to its own requirements, the training models all incorporate some form of clinical experiences.

Medical Education Model

The current model of medical education derives largely from a report developed by educator Abraham Flexner in the early 1900s and published in 1910. In surveying medical schools at the time, Dr. Flexner found a wide range of educational approaches, some excellent but many of poor quality and low rigor, with little coordination or standardization. He recommended an entry-level requirement for students to medical school of four years of college with a strong emphasis in the sciences. He advocated for medical schools to be based in universities, following a standardized curriculum of two years of classroom and laboratory education in the basic and health sciences, followed by two years of clinical experience in a teaching hospital, where students would train under the supervision of “physician-scientists” engaged in teaching

and patient care, as well as medical research. Most medical schools today follow this “Flexnerian” 2 + 2 model (Irby, Cooke, & O’Brien, 2010).

However, with changes in the healthcare system and advances in medical science, many leaders in medical education are calling for more flexibility to this model with a greater emphasis on integrating basic, clinical, and social sciences with clinical experiences. Modern healthcare professionals need to understand systems of care, quality improvement programs and safe practice, population health, health economics, ethics, and the social determinants of health. They must learn not only their own professional role, but the roles and responsibilities of other professionals, in order to function in interprofessional teams. Thus, many educators and other experts believe that the process of training physicians must move beyond Flexner to meet the needs of 21st century health care. Some proposals call for medical students to begin the clinical experiences earlier in their education, to better connect classroom knowledge with the realities of practice, and develop a more long-term and holistic understanding of their patients and their care needs (Council on Graduate Medical Education [COGME], 2016; Irby et al., 2010; Thibault, 2013).

Nursing education model

Nursing is a practice profession that emphasizes direct patient care. Direct care refers to nursing care activities provided to patients that are intended to achieve specific health goals or promote desired health outcomes. Direct care may be provided in a wide range of settings, including acute and critical units in the hospital, long-term care facilities, home health, community-based settings, and educational settings. Clinical experiences prepare students to care for a variety of patients of all ages and in all walks of life (American Association of Colleges of Nursing [AACN], 2017).

Nursing currently offers three educational pathways that lead to an entry-level license to practice as a Registered Nurse (RN): a diploma in nursing, an associate degree in nursing (ADN), and a bachelor of science in nursing (BSN) degree. While the three levels vary in the amount of classroom preparation, all place significant emphasis on clinical training. Regardless of the pathway, all students must pass the National Council Licensure Examination for Registered Nurses (NCLEX-RN). As a result, preparation for this exam influences undergraduate nursing curricula. The exam currently is skewed toward acute hospital-based care, because the majority of nurses first work on a hospital unit. However, an Institute of Medicine (IOM) [Note: now the National Academy of Medicine] report calls for nursing education to adapt to the changing needs of the healthcare system and of patient populations by placing greater emphasis on the competencies needed to provide care in community settings, including community and public health, health promotion and disease prevention, and primary care (IOM, 2011).

The jobs of many nurses are changing dramatically in the evolving healthcare system. Nurses are assuming expanded roles for a broad range of patients in ambulatory care and community-based settings which involve new responsibilities for population health, care coordination, and interprofessional collaboration (Fraher, Spetz, & Naylor, 2015). A previous ACICBL report (2014) called for new models of care to move nurses into the community. The clinical training of nurses will need to adapt with these evolving realities.

Clinical Training Sites

Within the health care curriculum, clinical training sites serve an essential function to provide medical, physician assistant, nursing, and other health professions students with hands-on opportunities with patients in real-world settings (AACN et al., 2013). The traditional site of clinical training for students in many health professions has been the teaching hospital, often affiliated with a university or other academic center. However, the health care system in the United States is undergoing a period of rapid, dramatic, and unprecedented change. There is a greater societal demand for high-quality health care at a lower cost, and a greater emphasis on the overall health of the population. The provision of health care is moving beyond traditional sites to include more community clinics and other similar settings. The education of health professions students must adapt to provide clinical training opportunities in a broader range of sites (Bacon & Newton, 2014).

The Advisory Committee on Training in Primary Care Medicine and Dentistry (ACTPCMD) has defined community care sites as:

“Locations of outpatient clinics and facilities that include, but are not limited to: private and federally-qualified health centers; community mental health centers; rural health clinics; health centers operated by the Indian Health Service, an Indian tribe or tribal organization, or an urban Indian organization; and entities receiving funds under Title X of the Public Health Service Act” (ACTPCMD, 2014, p. 15).

The number of health professions students admitted to educational programs is increasing, and training in community sites is increasingly vital to student development. Community-based clinical training affords students the opportunity to apply what they have learned in the classroom to real-world situations to gain a better understanding about the effect of physical and social environments on the health of both patients and communities. Students can develop systematic approaches for assessing health problems, learn health promotion techniques, and understand community resources and interventions to address community health problems (ACICBL, 2014; Josiah Macy Jr. Foundation, 2013).

Clinical training sites greatly affect student training. The competency, safety, and quality of care delivered at the clinical training site has an impact not only the quality of the training experience, but on the quality of care the trainee will provide as a professional (COGME, 2013). A “successful” primary care clinical rotation can be life altering for the learner, while community-based primary care rotations providing care to underserved populations can expand the trainee’s marketable skills (Clark-Dufner & Lord, 2016). In addition, many community clinics are set in rural or other underserved locations that need more primary care providers, and trainees exposed to underserved populations are more likely to practice in similar settings upon graduation (Morris & Chen, 2009).

Clinical Simulation

Clinical simulation is one possible way to expand clinical training or make more efficient use of preceptors. Simulation is a lab-based form of training, where students are active participants in learning. The students are presented with a clinical scenario relevant to their discipline and level of education in a simulation lab usually set up as a hospital room or unit and equipped with a mannequin that may be connected to sensors or other detection devices. The programmed

responses of the mannequin, hospital monitors and alarms, and similar equipment are meant to portray a patient case transpiring in real time. When students train together, the simulation provides an opportunity to work on collaboration and communication skills. Student performance can be closely observed and monitored without risk to patients. Clinical instructors can assess students in the simulation setting to promote readiness for clinical training, and provide immediate feedback on performance.

Simulation has been used to teach clinical techniques and develop decision-making skills. The simulation lab provides a safe environment to allow students to engage in clinical activities that reflect practice, without threat of causing harm to patients. Once the clinical scenario is concluded, instructors can provide immediate and detailed feedback which helps promote the learning process (Bliss & Aitken, 2017).

However, there is some concern that simulation may not help with acquiring clinical skills and may hinder some learning, if it takes the student away from direct patient contact and the relationship with an experienced preceptor as mentor (Bliss & Aitken, 2017). A clinical site has an intensity and variety of cases that is difficult to simulate, which may ultimately limit the usefulness of simulation as a tool for clinical learning.

Telehealth

Efforts to expand health care in rural or urban areas can be enhanced through the use of *telehealth* services to connect patients with clinicians, provide health education and information, gather data, identify gaps in care, and measure outcomes (ACICBL, 2013). HRSA's Federal Office of Rural Health Policy (FORHP) defines telehealth as "the use of telecommunications and information technologies to share information, and provide clinical care, education, public health, and administrative services at a distance" (HRSA, FORHP, 2015). Telehealth applications can extend health care services into remote areas, provide clinical follow-up for many individuals with chronic conditions, extend the efficiency and distribution of the healthcare workforce, and improve outcomes (IOM, 2012). When designed well, telehealth systems improve access to and quality of care, at a lower cost to the system and greater convenience to the patient (Fraher et al., 2015).

Current barriers limiting the use of telehealth modalities include reimbursement to providers, licensure requirements across state or other boundaries, workforce preparation and training, and questions of cost effectiveness (IOM, 2012). Expanding the use of telehealth will require improving the proficiency of the healthcare workforce in using information technology. As one nurse states, "The telephone is our stethoscope, and keeping patients healthy and safe at home is our ultimate goal" (Bergeron, quoted in Lynch, 2016).

Clinical Preceptors

The training of health professions students at clinical sites is often reliant on the availability of a preceptor. Preceptors are generally not members of the faculty, but rather are practicing clinicians employed by the clinical site. The purpose of a preceptor is to provide a one-on-one relationship with the student to help the student develop clinical skills and competencies, gain practical experience working with patients in the work environments, and understand the clinical setting and the patient population (Northeastern University, 2014).

To be effective in the training of students, preceptors need to be oriented to the learning objectives of the practice experience, provide input regarding faculty evaluation of students, and consult regularly with the faculty providing oversight for the student's practice experience. Preceptors should work with the students under their supervision to identify the required learning objectives and design a learning program to achieve those objectives, helping students integrate their learning into practice (AACN, 2016). Engaging practicing healthcare clinicians to serve as clinical preceptors provides students with learning opportunities not readily available on campus and helps to link academic programs with community-based clinics and health systems (ACICBL, 2014).

A recent study of community-based pediatric preceptors found that most enjoyed the challenge of teaching, felt teaching was a natural extension of their professional duties, and believed serving as a preceptor helped them keep current with medical trends. However, many felt unprepared to serve in a teaching role or to assign a grade, and were concerned that teaching took them away from their patients or increased their time commitments. Many felt that students needed to be better prepared to assist in the clinical setting, such as by charting in the patient's electronic health record. They cited certain incentives to teach, such as professional recognition, increased communication with the university or teaching program, mentoring of new preceptors by those with more experience, and to a lesser degree increased remuneration (Beck Dallaghan et al., 2017).

Concerns in Clinical Training

While clinical training plays a vital role in the development of students in all healthcare professions, changes in the healthcare system are affecting the availability and adequacy of clinical training sites, as well as the number and quality of clinical preceptors.

Concerns about Clinical Training Sites

Concerns regarding the adequacy of clinical training sites have increased in recent years because of growing class sizes among existing healthcare professions programs and a steady growth of new programs, resulting in competition for sites as well as a shortage of willing and well-trained preceptors. Adding to the competition resulting from expanded enrollment in traditional schools in the United States is increased competition from students enrolled in distance education programs. A shortage of clinical training sites is affecting schools across health disciplines. Recent surveys have indicated that schools of medicine, schools of nursing, and programs for physician assistants are all reporting concerns about the number of sites, or that an insufficient number of sites and preceptors is limiting their ability to accept qualified applicants or sustain the program's growth (AACN, et al, 2013; Rokusek, 2016).

According to Rokusek (2016), half of all medical schools report concerns about an inadequate number of residency positions, and over three-quarters report concerns about the number of clinical training sites and the quality and supply of preceptors, especially in primary care. While the majority of schools do not pay for clinical training slots, more are feeling pressure to institute such payments as a result of increasing competition from U.S. schools and the growth of medical school programs in the Caribbean, which often offer significant payment for clinical site access.

Possible Solutions to Expand Access to Clinical Training

As the healthcare system evolves away from expensive hospital care, more clinical training will need to take place in small, community settings. Students can rotate their clinical experiences within one health care system but across the continuum of healthcare delivery from community clinics to inpatient care to home health, possibly to include night or weekend shifts. Other sites for clinical training might include:

- Retirement communities, senior centers, and adult day care centers,
- Programs for persons with intellectual and developmental disabilities,
- Private practices,
- Wellness clinics in housing projects, and
- School health and/or pregnant teen programs (Rokusek, 2016).

More research might also be needed in simulation-based training and performance assessments and evaluations. The goal for simulation should be to optimize student learning to promote high quality patient care. While simulation may be able to augment clinical training, it cannot fully re-create or replace the demands of real-world clinical training.

Issues Affecting Students in Community Clinical Training Sites

As clinical training sites move away from a central location such as a teaching hospital at a university-based medical center, students face new challenges. Community healthcare settings are often in distant, rural, or even remote locations. Students may not have ready access to a car for transportation, and if the site is far away they may need to secure lodging. These impose added expenses that students can often ill afford. Supporting students who desire to train in these locations may require funding for travel and lodging expenses.

Possible Solutions for Students

There are benefits to students training in non-traditional sites that might include clinics in rural, remote, or tribal locations, inner city neighborhoods, or other sites such as schools, nursing homes, or prisons. Clinical experiences in these locations can expose the student to new challenges and demands, while promoting creativity and independence. In addition, students often decide to work where they train, so increasing training in these locations may improve access to care in rural and other underserved communities. However, students will need support and financial assistance to offset travel costs and the possible need to obtain lodging for extended periods of time away from their home campus.

Issues Affecting Preceptors

Clinical training of students in the health professions relies on preceptors. Many clinicians who serve as preceptors are motivated by a desire to teach and to prepare the next generation of clinicians. However, precepting students requires both time and resources. A clinician acting as a preceptor often experiences a decline in productivity, due to the time taken away from seeing patients or completing routine responsibilities. The current compensation model for primary care clinicians does not include reimbursement for precepting and teaching. Clinical sites must have the resources to support staff clinicians serving in the preceptor role.

The growth of the health professions has created challenges in education and training, and one major concern is the number and quality of preceptors working with students in community health settings. The supply of preceptors has been shrinking, and this shortage has become a significant issue for health professions schools. Many have reported that preceptors are dropping out, and the schools cannot offer sufficient professional development, recognition, support, or financial rewards to entice them to stay (Beck Dallaghan et al., 2017; Rokusek, 2016).

According to Newton (2016), these issues are prevalent in the state of North Carolina and are reflective of issues across the nation. The North Carolina Area Health Education Center (AHEC) program supports a number of community-based organizations and primary care practices across the state. The AHEC program is funded by HRSA, with the mission to support clinical education while increasing access to health care in underserved areas. The North Carolina AHEC is one of the largest programs in the nation, covering approximately 1,500 preceptor sites across the state. It works with a number of different schools to offer clinical placements to students from medicine, nursing, pharmacy, and mental health, among other disciplines. Preceptors receive a small reimbursement through the state's AHEC funding, from \$75 to \$125 per week. These payments have remained flat for several years, and no new schools or programs have been added to the North Carolina AHEC due to cuts in funding.

North Carolina has signed onto the State Authorization of Reciprocity Agreement (SARA), which expands opportunities for students from outside North Carolina to train in the state, further increasing the demand for preceptors. Meanwhile, ongoing changes in the health care system have led to the consolidation of independent hospitals and group practices into large integrated systems, which has contributed to limiting the clinical training sites, while major changes in health professional education programs have increased demand for community preceptors.

A survey of preceptors across all professions in the state found that 92 percent intended to continue precepting, and the most common reason is professional satisfaction. Schools offer a variety of incentives for preceptors, with the most common being faculty appointment, access to information and library resources, financial payments, and appreciation dinners or other recognition events. However, it is unclear if this compensation is adequate (Newton 2016).

Possible Solutions for Preceptors

There is a need to engage both stakeholder schools and preceptors on educational priorities, common curricula, and best models of teaching in the community setting. Policymakers must determine if community precepting is a common good that merits public support. Some possible steps to support preceptors and increase their numbers are to:

- Reduce the administrative burden of precepting by using common requirements for immunization, safety training, and electronic health record use across all sites;
- Improve online training to better prepare students;
- Lengthen training rotations so students are more useful to the clinical sites;
- Support care transformation through the implementation of daily interprofessional team huddles that provide learning opportunities for students; and
- Develop a regional mechanism to control and monitor student placements (Newton, 2016).

Another element that needs attention is moving away from the concept of a preceptor as “any warm body.” Preceptors need opportunities for training, career development, and advancement. Incentives such as recognition, faculty appointments, letters of recommendation, and access to continuing education can improve retention. Service as a preceptor could also contribute to maintenance of licensure or certification requirements. Some states, including Georgia, Maryland, and Colorado, have implemented tax incentives to reward clinicians who serve as preceptors. As this is a relatively new approach, its effectiveness in increasing the number of preceptors has not been evaluated (Beck Dallaghan et al, 2017; Newton, 2016). HRSA could also use loan repayment incentives based on teaching to encourage more clinicians to serve as preceptors (Newton, 2016).

Another related approach to increase precepting capacity is the use of such techniques as simulation and telehealth. While much didactic education can be delivered through distance learning, and there has been experimentation with “tele-precepting,” face-to-face patient interactions are not easily duplicated or experienced at a distance (Newton, 2016).

A National Center for Clinical Training Site Development

Clinical training plays a major role in the education, training, and professional development of virtually all health professions students. However, many trends are coming together that promise to change how clinical training takes place:

- The number of students entering the health professions is growing, placing great strain on current training sites.
- The provision of health care is shifting away from expensive and centralized hospitals to encompass more lower-cost, community-based settings.
- Health professions schools are rapidly incorporating technologies such as simulation, distance learning, and telehealth into training programs.

Given these challenges, there is a need for a central national entity to oversee the development and growth of clinical training sites. ACICBL recommends the creation of a National Center for Clinical Training Site Development, to be charged with providing the coordination, leadership, evidence, and resources needed to guide health professions schools and academic centers, training hospitals, and community health settings in improving access to and the quality and safety of clinical training sites. This National Center would:

- support existing sites to ease financial and administrative burdens,
- work to expand access to new and non-traditional sites,
- examine and evaluate new clinical training curricula and methodologies,
- promote the recruitment and improve the quality of clinical preceptors, and
- coordinate research on and dissemination of best practices in clinical training.

This National Center would be patterned on the model of other successful HRSA Centers, including:

- the National Center for Health Workforce Analysis (funded by HRSA),
- the National Center for Interprofessional Education and Practice (a joint project between HRSA and several private organizations), and
- the Center for Integrated Health Solutions (a joint project between HRSA and the Substance Abuse and Mental Health Services Administration).

Summary

Clinical training is vital for students in nearly all health professions. It augments classroom learning and exposes students to the realities of patient care and the healthcare workplace. Changes in the healthcare system are moving patient care away from the hospital, where clinical training has traditionally taken place, and into a wider range of local and community-based settings. Such venues, particularly those located in rural or underserved areas, will need support and resources in order to serve as training sites. In addition, students may need access to more resources and financial assistance in order to take advantage of clinical training in a wider range of rural, remote, or other difficult-to-access settings.

While many clinicians are motivated to serve as clinical training preceptors as part of their professional responsibility, precepting requires both time and resources. Offering these clinicians support through payments, career advancement opportunities, tax breaks, and other incentives would help to grow and maintain the preceptor workforce needed to train the next generation of high-quality healthcare practitioners.

To address these issues related to expanding clinical sites, supporting students, and increasing the number and quality of preceptors, ACICBL offers the following three recommendations:

Recommendation 1:

The ACICBL recommends that HRSA support the development of a National Center for Clinical Training Site Development. The National Center would:

- a. develop best practices for clinical training in the health professions which would be disseminated across training sites;
- b. encourage clinical sites to foster capstone research projects that improve the quality and safety of patient care, and enhance the learning experience of the trainees;
- c. work with non-traditional partners to develop new clinical training sites and simulation centers, and
- d. create opportunities for preceptor training and enrichment.

Rationale: The number of clinical training sites is in decline, even as the number of students in the health professions is increasing. Many clinical sites struggle to accommodate students, and may lack the resources to offer training. Guidance from HRSA, along with funding preferences and increased total funding, could help increase the number and expand the types of clinical training sites available to students in the health professions, improve the quality of the training sites, and promote the clinical training that prepares students to work as qualified and experienced professionals.

Recommendation 2:

ACICBL recommends HRSA work with other federal agencies as well as private entities to provide monetary and non-monetary incentives for preceptors. These incentives could include payments for teaching, access to training and career advancement, faculty appointments, or a preceptor income tax exemption.

Rationale: Clinical training of students in the health professions relies on preceptors, health professionals who accept the responsibility to train students. Many practitioners choose to precept as a professional responsibility, as a way to keep their knowledge and skills current, and for perquisites such as payments, academic appointments, or access to educational benefits that help them maintain their license or certification. However, the supply of qualified clinical preceptors is lagging behind the demand. Precepting is a burden that can decrease the productivity of the practitioner, leading to a decrease in income. In addition, not all practitioners are qualified to serve as preceptors, or have the interest or inclination to teach. Efforts are needed to increase both the number and quality of preceptors.

Recommendation 3:

To facilitate the exposure of students to a wide range of clinical training sites in rural and underserved areas, ACICBL recommends a legislative change allowing HRSA to permit all Title VII, Part D, grantees to provide support for students through stipends and/or traineeships, as well as scholarships for disadvantaged students. Students should also be eligible to receive funding to cover travel and housing expenses when participating in clinical experiences located in rural, remote, or frontier settings or areas with limited access, if this expense would be required for success.

Rationale: This recommendation builds on and expands Recommendation 3 from the ACICBL 15th Report, August 2017. Students wanting a clinical experience in a remote or difficult to reach location often must incur extra expenses in terms of travel and lodging. Allowing grantee institutions to provide stipends or other funds to students to cover these costs may encourage more students to seek such experiences, while increasing the number and broadening the range of clinical training sites. However, precautions will be necessary to assure that the sites have the staffing and resources to provide training, and the student has access to proper oversight to fulfill training objectives.

Acronym and Abbreviation List

AACN	American Association of Colleges of Nursing
ACICBL	Advisory Committee on Interdisciplinary, Community-Based Linkages
ACTPCMD	Advisory Committee on Training in Primary Care Medicine and Dentistry
ADN	Associate Degree in Nursing
AHEC	Area Health Education Center
BHW	Bureau of Health Workforce
BSN	Bachelor of Science in Nursing
COGME	Council on Graduate Medical Education
DMD	Division of Medicine and Dentistry
FORHP	Federal Office of Rural Health Policy
HRSA	Health Resources and Services Administration
IOM	Institute of Medicine [Note: now the National Academy of Medicine (NAM)]
NCLEX-RN	National Council Licensure Examination for Registered Nurses
RN	Registered Nurse
SARA	State Authorization of Reciprocity Agreement

References

- Advisory Committee on Interdisciplinary, Community-Based Linkages. (2013). *Redesigning health professions education and practice to prepare the interprofessional team to care for populations*. Twelfth annual report to the Secretary of the U.S. Department of Health and Human Services and to Congress. Retrieved from www.hrsa.gov/advisorycommittees/bhpradvisory/acicbl/Reports/twelfthreport_.pdf
- Advisory Committee on Interdisciplinary, Community-Based Linkages. (2014). *Transforming interprofessional health education and practice: moving learners from the campus to the community to improve population health*. Thirteenth annual report, retrieved from www.hrsa.gov/advisorycommittees/bhpradvisory/acicbl/Reports/thirteenthreport.pdf
- Advisory Committee on Training in Primary Care Medicine and Dentistry. (2014). *Training health professionals in community settings during a time of transformation: building and learning in integrated systems of care*. Eleventh annual report to the Secretary of the U.S. Department of Health and Human Services and to Congress. Retrieved from www.hrsa.gov/advisorycommittees/bhpradvisory/actpcmd/Reports/eleventhreport.pdf
- American Association of Colleges of Nursing. (2016). *Advancing healthcare transformation: A new era for academic nursing*. Washington, DC: Author.
- American Association of Colleges of Nursing. (2017). *Expectation for practice experiences in the RN to baccalaureate curriculum*. Retrieved from www.aacnnursing.org/Portals/42/News/White-Papers/RN-BSN-Expectations-White-Paper.pdf?ver=2017-10-18-151759-487
- American Association of Colleges of Nursing, American Association of Colleges of Osteopathic Medicine, Physician Assistant Education Association, & Association of American Medical Colleges. (2013). *Recruiting and maintaining U.S. clinical training sites: Joint report of the 2013 multi-discipline clerkship/clinical training site survey*. Washington, DC: Authors.
- Bacon, T. J., & Newton, W. P. (2014). Innovations in the education of health professionals. *North Carolina Medical Journal*, 72, 1 22-27.
- Beck Dallaghan, G. L., Alerte, A. M., Ryan, M. S, Patterson, P. B., Petershach, J., Christy, C. et al. (2017). Recruiting and retaining community-based preceptors: A multicenter qualitative action study of pediatric preceptors. *Academic Medicine*, 92, 1168-1174.
- Bliss, M., & Aitken, L. M. (2017). Does simulation enhance nurses' ability to assess deteriorating patients? *Nurse Education and Practice*, 28, 20-26.

- Clark-Dufner, P., & Lord, C. (2016). *Opportunities, challenges and realities of community based clinical training for today's health professions learner & preceptor*. Presentation to the Advisory Committee on Interdisciplinary, Community-Based Linkages, May 25, 2016. Retrieved from www.hrsa.gov/advisorycommittees/bhpradvisory/acicbl/Meetings/clarkdufner0516.pdf
- Council on Graduate Medical Education. (2013). *Improving value in graduate medical education. The 21st Report to the Secretary of the Department of Health and Human Services and to the Congress*. Retrieved from www.hrsa.gov/advisorycommittees/bhpradvisory/cogme/Reports/twentyfirstreport.pdf
- Council on Graduate Medical Education. (2016). *Towards the development of a national strategic plan for graduate medical education. The 23rd Report to the Secretary of the Department of Health and Human Services and to the Congress*. Retrieved from www.hrsa.gov/advisorycommittees/bhpradvisory/cogme/Reports/twentythirdreport.pdf
- Fraher, E., Spetz, J., & Naylor, M. (2015). *Nursing in a transformed health care system: new roles, new rules*. Robert Wood Johnson Foundation Interdisciplinary Nursing Quality Research Initiative. Retrieved from <http://ldi.upenn.edu/brief/nursing-transformed-health-care-system-new-roles-new-rules>
- Health Resources and Services Administration (HRSA), Federal Office of Rural Health Policy (FORHP). (2015). *Telehealth programs*. Retrieved from <http://www.hrsa.gov/ruralhealth/telehealth/index.html>
- IOM (Institute of Medicine). (2011.) *The Future of Nursing: Leading Change, Advancing Health*. Washington, DC: The National Academies Press.
- IOM (Institute of Medicine). (2012). *The role of telehealth in an evolving health care environment: workshop summary*. Washington, DC: The National Academies Press.
- Irby, D. M., Cooke, M., & O'Brien, B. C. (2010). Calls for reform of medical education by the Carnegie Foundation for the Advancement of Teaching: 1910 and 2010. *Academic Medicine*, 85, 220-227.
- Josiah Macy Jr. Foundation. (2013). *Conference recommendations: Transforming patient care: Aligning interprofessional education with clinical practice redesign*. Retrieved from [/macyfoundation.org/docs/macy_pubs/TransformingPatientCare_ConferenceRec.pdf](http://macyfoundation.org/docs/macy_pubs/TransformingPatientCare_ConferenceRec.pdf)
- Lynch, J. P. (2016). Transforming primary care: one nurse's story. *Nurse.com*, 1(3), p. 24.
- Morris, C., & Chen, F.M. (2009). Training residents in community health centers: Facilitators and barriers. *The Annals of Family Medicine*, 7, 488-494.

- Newton, W. P. (2016). *Community precepting: Demand, supply and the impact of the emerging precepting crisis*. Presentation to the Advisory Committee on Interdisciplinary, Community-Based Linkages, September 19, 2016. Retrieved from www.hrsa.gov/advisorycommittees/bhpradvisory/acicbl/Meetings/warrenpresentation0916.pdf
- Northeastern University, Bouvé College of Health Sciences. (2014). *School of Nursing Preceptor Manual*. Boston: Northeastern University.
- Romig, B. D., Tucker, A. W., Hewitt, A. M., & Mailett, J. O. (2016). The future of clinical education: Using the Delphi technique to study allied health deans' perspectives on definitions and goals. *Journal of Allied Health, 45*, 243-250.
- Rokusek, C. (2016). *A major health professions education challenge in the 21st century: Maintaining and developing new clinical training sites*. Presentation to the Advisory Committee on Community-Based Interdisciplinary Linkages, May 25, 2016.
- Sepples, S. B., Goran, S., Zimmer-Rankin, M. (2013). Thinking inside the box: The tele-intensive care unit as a new clinical site. *Journal of Nursing Education, 52*, 401-404.
- Thibault, G. E. (2013). Reforming health professions education will require culture change and closer ties between classroom and practice. *Health Affairs, 32*, 1928-1932.