The Nursing Regulatory Environment in 2018: Issues and Challenges

National Council of State Boards of Nursing

Many issues and challenges affect the nursing regulatory environment and nursing practice, such as a changing nursing workforce, new methodologies and trends in nursing education, new health care access and delivery, and emerging societal issues impacting nurses and the health of the general public. This article reviews the highlights of the 2018 National Council of State Boards of Nursing Environmental Scan, with a focus on present and future regulatory issues and challenges that boards of nursing will face as 2018 unfolds.

Keywords: nursing workforce population and mobility, nursing education, regulatory environment in 2018, precision medicine, current social and health care issues

Objectives

- Discuss the current, comprehensive portrait of nursing in the United States, including emerging issues and challenges.
- Describe the current state of nursing and our readiness to enter the modernized era of health care.
- Explain fluctuations in the nursing workforce by state and region of the country.
- Name a solution to improving nursing workforce mobility and access to care.
- Identify nursing considerations in emerging new models for the delivery of health care.
- Analyze nursing implications of emerging roles of other members of the health care team.
- Predict how nursing education programs will prepare competencies of the future nursing workforce.
- Form regulatory solutions to three current social issues.

Modernization of health care cannot adequately be achieved without the participation of those in the nursing profession, and a new era of nursing depends on a contemporary and revitalized regulatory system. Nurse regulators oversee nurse licensure and scope of practice, approve nursing education programs, and administer state nurse practice acts and regulations. The annual National Council of State Boards of Nursing (NCSBN) Environmental Scan provides regulators and other nurse leaders with a current, comprehensive portrait of the nursing profession in the United States, including emerging issues and challenges. This article presents the major highlights of the 2018 Environmental Scan, with a focus on present and future regulatory issues and challenges related to:

- nursing workforce population and mobility
- new health care settings, roles, and personnel
- scope of practice issues
- new treatment methods and strategies impacting nursing education and practice
- societal issues affecting nurses and their practice as well as the general public, including workplace violence, cannabis use, and the opioid crisis.

These highlights reflect substantial professional, social, and political changes needed for regulators and other nurse leaders to keep pace with potential health care system transformations.

Nursing Workforce Issues

Sufficient numbers of registered nurses (RNs) and licensed practical/vocational nurses (LPN/LVNs) at all levels and the ability to forecast and plan for shortages are integral to the delivery of safe and quality patient care. Other important issues related to the nursing workforce include mobility, employment, employer, practice settings, new health care roles and the regulatory implications of these issues.

RN and LPN/LVN Population

In 2018 and beyond, adequate numbers of nurses will be vital for patients' access to care and nurses' access to jobs as studies predict both shortages and surpluses in the nursing workforce. As of November 23, 2017, the U.S. workforce consisted of 4,015,250 active RN licenses and 922,196 active LPN/LVN licenses (National Council of State Boards of Nursing [NCSBN], 2017e). Of these, 2,857,180 RNs and 702,400 LPN/LVNs were employed in the United States as of May 2016, the most recent statistics available (U.S. Department of Labor, Bureau of Labor Statistics, 2017a).

The number of employed RNs per population in each state varies widely, from fewer than 700 RNs per 100,000 population in Nevada to over 1,500 RNs per 100,000 in the District of Columbia (U.S. Department of Labor, Bureau of Labor Statistics, 2017a; U.S.

Census Bureau, 2017). Other states with approximately 700 RNs per 100,000 people are California, Georgia, Oklahoma, and Utah. Conversely, South Dakota (1,402 per 100,000), Massachusetts (1,250 per 100,000), and Delaware (1,189 per 100,000) have the highest ratios of employed RNs per population along with the District of Columbia.

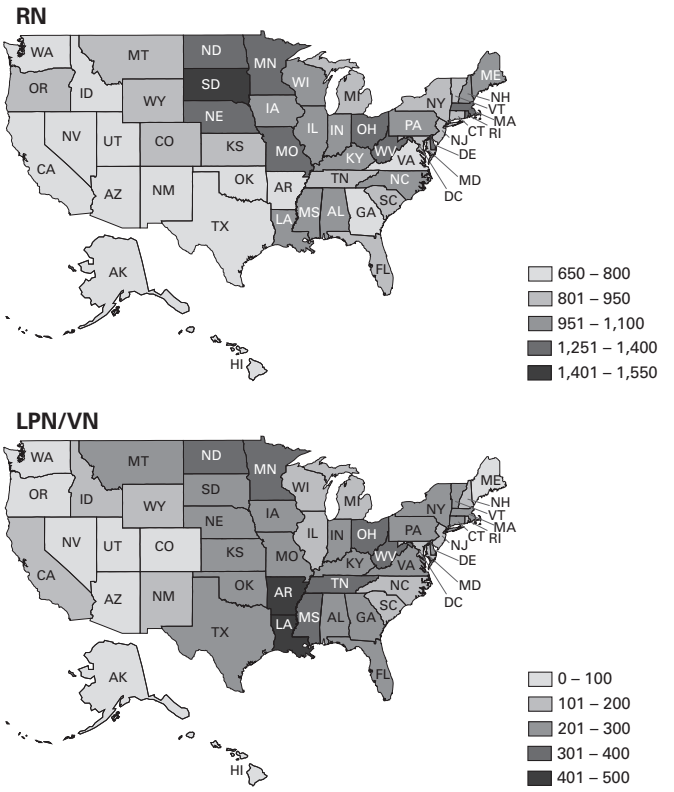
The ratio of employed LPN/LVNs is between 65 and 70 per 100,000 people in Alaska, Oregon, and Utah and over 400 per 100,000 in Arkansas and Louisiana (U.S. Department of Labor, Bureau of Labor Statistics, 2017a; U.S. Census Bureau, 2017). States with shortages include Maine and most of the western states except for California, which has slightly more LVNs per 100,000 population than its neighboring states. (Figure 1 provides a broad comparison of the numbers of RNs and LPNs across the country.)

A number of studies published in 2017 indicated that the nursing workforce needs will continue to fluctuate according to state and region of the country. In 2017, the Health Resources and Services Administration (HRSA) released national projections for the U.S. nursing workforce through 2030 reporting inequitable distributions of nurses across states (Health Resources and Services Administration, 2017). According to the HRSA report (2017), seven states are projected to have an RN shortage, and 33 states are projected to have an LPN shortage by 2030. The greatest shortages of RNs are predicted in California, Texas, New Jersey, and South Carolina. Texas and Pennsylvania are expected to have the greatest LPN shortages. Florida, Ohio, Virginia, and New York could expect a surplus of RNs. An LPN surplus is projected for Ohio and California. Projections made from the Health Workforce Microsimulation Model used nurse data from the American Community Survey along with information reflecting the economy and labor markets. The model estimated the growth in RN supply (39%) will outpace the growth in RN demand (28%) by 2030 resulting in an excess of almost 300,000 RNs nationally. For LPNs, the growth in supply is estimated to be 26% while the growth in demand is expected to be 44%. This imbalance could result in national-level shortage of 151,000 LPNs by 2030.

In 2017, NCSBN collaborated with the National Forum of State Nursing Workforce Centers to conduct a national workforce study to assess and describe the current RN and LPN workforce (in press). The findings data will be published later this year in the *Journal of Nursing Regulation*. Individual boards of nursing (BONs) are also collecting population and workforce data with licensure renewals, which are being deposited into NCSBN's National Nursing Workforce Repository. When all boards have provided these data, nursing will have a more current and accurate database to analyze the workforce and make predictions for the future.

FIGURE 1

RN and LPN/VN Employment by State*



*Employed RNs and LPN/VNs per 100,000 people by state

Source: U.S. Department of Labor, 2017; U.S. Census Bureau, 2017.

RN and LPN Employers

The predominant employers of RNs and LPN/LVNs will be hospitals and long-term care facilities, respectively. According to the most recent data from the U.S. Department of Labor, Bureau of Labor Statistics (2017a), RNs held an estimated 3 million jobs in the United States in 2016. Of those, 61% were in hospitals. Hospitals were followed by ambulatory health services (18%), nursing and residential facilities (7%), government facilities (5%), and educational services (3%). The same data showed that LPN/LVNs held approximately 724,500 jobs in 2016. The largest employers of these nurses were nursing and residential care facilities (38%), hospitals (16%), physician offices (13%), home health care services (12%), and government facilities (7%).

Enhancing Workforce Mobility

HRSA's proposed solution to the inequitable distribution of nurses across states is optimal migration. Thus, nurses would move to or work in areas of greater need. The distribution of the nursing workforce is likely to improve as more states join the enhanced Nurse Licensure Compact and the APRN (advanced practice registered nurse) Compact. Adoption of the nurse compacts is a rapid and straightforward answer to improving workforce mobility and access to care.

NLC, eNLC, and APRN compacts

In 2000, the Nurse Licensure Compact (NLC) became the first health care compact to be signed into law. Under the compact, nurses obtain a single license enabling them to practice in any other compact state. By 2015, the NLC had 25 member states; however, membership stalled due to differences in state licensure requirements. As a result, the

enhanced NLC (eNLC) was developed in 2015 to increase the number of compact states through use of uniform licensure requirements, including the required use of criminal background checks (NCSBN, 2017b).

The eNLC, nursing regulation's newest licensure model, was officially implemented on January 19, 2018. Currently adopted by 29 states, the eNLC enables nurses to receive a multistate license in their state of residence with the privilege to practice in all other states that joined the compact. The eNLC increases public protection as it: (a) mandates specific nursing licensure requirements for participating states; (b) provides improved access to care through greater workforce mobility, allowing nurses to migrate to locations with the greatest need and job availability; (c) enhances telehealth nursing, which can expand the workforce into shortage areas; and, (d) perhaps most importantly, mobilizes nursing care quickly, efficiently, and safely during a disaster.

The APRN Compact affords the same advantages to APRNs that the NLC provides. With the APRN Compact, the APRN is issued a license in his or her home state and may practice telephonically or physically in another compact state without applying and paying for an additional license(s).

The essential elements of the APRN Consensus Model, which include practicing and prescribing without required supervision by, or collaboration with, another profession, serve as the uniform licensure requirements for adoption by states and form the basis of the APRN Compact. Once the compact is effective, it will allow an APRN in a participating state to practice on a multistate privilege in other participating states.

Opposition to the APRN Compact from the American Medical Association (AMA, 2015, 2017) and the American Society of Anesthesiologists (ASA, 2017; Philip & Plagenhoef, 2016) has been documented; however, the AMA and ASA have not expressed opposition to the RN compact, the emergency medical compact, the medical compact, or the interstate compact. Despite the ability and knowledge of APRNs to practice safely and effectively, the AMA and ASA continue to target and oppose the APRN Compact.

New Workforce Settings

It is anticipated that a greater proportion of nursing employment will occur in ambulatory and home care settings as health care shifts to those settings (Bauer & Bodenheimer, 2017). Other new settings emerging for the delivery of health care include microhospitals, pop-up clinics, and telehealth.

Home and community

The delivery of health care in the home and community environment will be facilitated by remote patient monitoring that will become a routine part of nursing care. Patients who used to be required to stay in hospitals or other facilities for monitoring will be able to return home, instead receiving monitoring through wearable electronic devices that simultaneously monitor pulse, respiratory rate, blood pressure, and dozens of additional parameters (Sheikh, Bates, Wright, & Cresswell, 2017).

Microhospitals

Recognizing the need to deliver hospital-level care, many communities are embracing microhospitals—smaller facilities of eight to 15 beds that handle acuity somewhat comparable to a larger community hospital. The goal of these facilities is to bring pre-acute care into neighborhoods with more services than those found at a retail clinic or urgent care facility. Microhospitals often facilitate ongoing patient engagement in otherwise-remote communities in a cost- and operationally efficient manner. Their small size makes them versatile enough to be successful in areas with widely varied population densities and to provide more personalized care that enhances patient outcomes and experience (Becker's Hospital Review, 2017).

The model is not without challenges, the first of which is keeping the microhospital small. Over time, many health systems find incentives to grow a microhospital larger and offer more services, which interferes with cost effectiveness. An additional challenge is that the facility operations, including staffing, workflow, and culture, are very different from a full-scale hospital (Becker's Hospital Review, 2017).

Further, obtaining the proper zoning and licensing approvals for microhospitals can be difficult since often the necessary requirements have not been established. Recognizing the benefit microhospitals provide to communities, state zoning and licensing boards have been flexible; however, organizations developing microhospitals stress that being familiar with the regulations is key (Eagle, 2017).

Pop-up clinics

The aim of pop-up clinics is to provide services to large groups of people who cannot access health care, particularly in medically underserved areas and regions with large uninsured populations. Often appearing in malls, convention centers, and fairgrounds, these temporary free clinics attempt to address the gaps in care that take heavy tolls on certain populations. Pop-up clinics often rely on volunteer providers and are staged by nonprofits and funded by donors (Gabriel, 2017; Simon, 2016).

Telehealth

Telehealth is an emerging care delivery platform exchanging patient information through electronic communication with the intent of improving a patient's health (American Telemedicine Association, 2018). This platform continues to grow as a major topic of discussion among health care advocates. REACH Health recently conducted a survey of health care executives on telehealth and its successful implementation. Fifty-one percent of executives surveyed listed telehealth as a top or high priority, and of those, 99% saw success in implementing telehealth services in their organizations. Most executives surveyed listed their top goals as improving patient outcomes, convenience, and satisfaction and providing rural communities access to specialists (REACH Health, 2017).

With the advancement of home and community care, telehealth and other ways to access care are being expanded and will call for increased mobility of nurses and decreased barriers to licensure.

Numerous bills have been introduced in Congress to assist telehealth service implementation and address telehealth reimbursement through the Centers for Medicare & Medicaid Services (CMS). Notably, the U.S. Senate passed The CHRONIC Care Act of 2017, which incentivizes care coordination and updates Medicare telehealth payment policies for care delivered to patients managing chronic diseases. Other bills addressing Medicare telehealth payment policy that have received substantial attention in Congress include The CONNECT for Health Act and The FAST Act. CMS is considering changes that would allow for additional telehealth reimbursement. In the CMS CY 2018 Physician Fee Schedule final rule, the agency created a remote patient monitoring benefit that would pay caregivers who obtain digitally transmitted biometric data from patients (Centers for Medicare & Medicaid Services [CMS], 2017a).

New and Emerging Roles

As new health care models move care into the community setting and as the need for providers in rural and health-shortage areas increases, some nursing responsibilities may be provided by nonnursing personnel, such as community health workers (CHWs) and community paramedics (CPs). These new roles will certainly present implications for regulators regarding oversight and scope of practice that will need to be addressed.

Community health workers

As of May 2016, 51,900 CHWs were working in the United States, with the highest levels of employment in individual and family services, local government, outpatient care centers, general medical and surgical hospitals, and physician offices (U.S. Department of Labor, Bureau of Labor Statistics, 2017b). States with the highest employment of CHWs include California, New York, Texas, Massachusetts, and Illinois (U.S. Department of Labor, Bureau of Labor Statistics, 2017b).

CHWs differ from home health aides, who may assist with activities of daily living, and from certified nurse assistants, who may assist in carrying out a nursing plan of care. Job responsibilities for CHWs often include home visits, follow-up after acute care discharge, monitoring chronic diseases, and educating patients in the management of their conditions. They also may educate the community on best practices for specific conditions. CHWs are often part of the patient's community and share the language and ethnicity of their patients. In 2017, CHWs gained federal recognition for their ability to help address social determinants of health (Malcarney, Pittman, Quigley, Horton, & Seiler, 2017). CHWs are more likely to have "linguistic and cultural concordance" with their patients, which contributes to their effectiveness in reaching underserved communities and addressing health disparities (Chapman & Blash, 2017; Malcarney et al., 2017).

The addition of CHWs is occurring across various health settings. For example, a study on CHWs found a "shift in CHW employment settings from community-based organizations to hospitals and health systems that hire them directly" (Malcarney et al., 2017). Few studies have suggested role independence. The preponderance of recent studies suggests CHW roles are well suited to round out team-based care solutions and bridge the patient's life experiences to the planning and strategies of the larger health team (Guerra Luz, 2017). Further study is needed to determine if CHWs enhance team-based outcomes and interventions.

Community paramedics

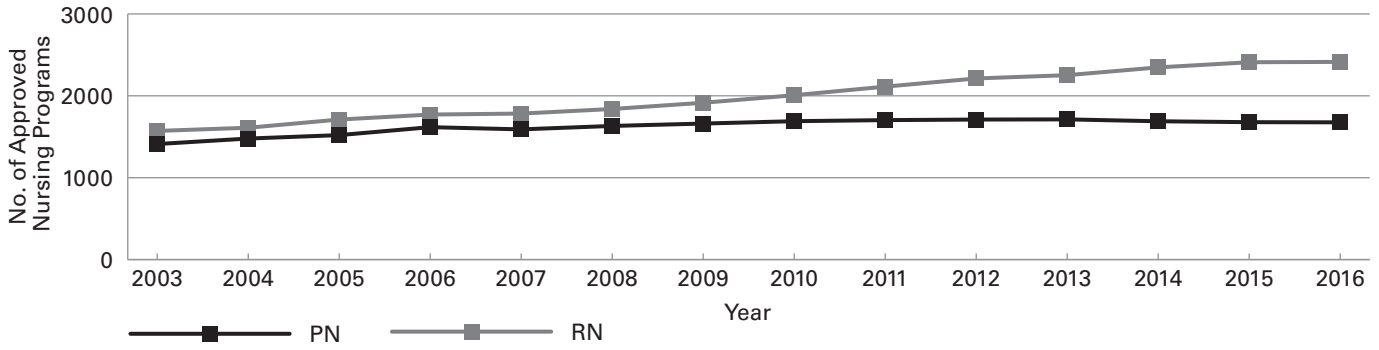
States are increasingly using emergency medicine technicians (EMTs) and paramedics to provide cost-effective, nonemergency, and preventive health services to communities (Miller, 2017). The community paramedicine model of care allows EMTs and paramedics to practice beyond their traditional emergency-response roles. Community paramedicine programs are designed to integrate with existing health care resources ("Innovative California community," 2017) and use specially trained community paramedics who have typically completed 200 extra hours of study (Sequeira, 2017). Community paramedicine programs currently operate in 33 states and the District of Columbia (Coffman, Wides, Niedzwiecki, & Geyn, 2017) and are being piloted in several states including California, Colorado, Maine, Minnesota, North Carolina, and Texas (Sequeira, 2017). The expanding roles of EMTs and CPs may help reduce the amount of emergency department (ED) visits (Fotsch, 2015), avoid unnecessary ambulance transports, reduce hospitalizations and readmissions (O'Meara, Furness, & Gleeson, 2017), and create greater access to quality care for rural populations (Ashton, Duffie, & Millar, 2017; Bennett, Yuen, & Merrell, 2017).

Regulatory implications

Evidence suggests both CHWs and CPs fill valuable roles in the interdisciplinary health care team by providing care planning, patient education, and health care cost reduction in a culturally competent manner, particularly in underserved areas (National Conference of State Legislatures, 2017a). Questions regarding oversight and scope of practice remain. Community paramedicine programs face legislative challenges as well. Only seven states have laws specific to CP scope of practice (Glenn et al., 2017), and existing legislation often prevents EMTs from engaging in activities beyond emergency response. As CPs find their role in the interdisciplinary team, community paramedicine programs must be mindful of scope-of-practice conflicts that may occur with nurses or home health associations (Fotsch, 2015; National Conference of State Legislatures, 2017a). On the other end of the spectrum, legislation in some states is contributing to the blurring of scope-of-practice lines concerning EMTs and CPs. In 2017, for example, Illinois became one of a small but growing number of states that allow EMTs to administer Schedule II through Schedule V controlled substances without the order of a prescriber (Ill. Legis., 2017).

FIGURE 2

Number of Approved Nursing Programs from 2003–2016



Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
PN	1411	1478	1520	1617	1590	1632	1661	1690	1703	1710	1712	1689	1678	1676
RN	1571	1610	1710	1771	1783	1839	1915	2007	2112	2212	2252	2347	2410	2414

Note. PN = practical nurse; RN = registered nurse. Source: NCSBN (2017f).

It is important for nurse regulators to play an active part in role development and, possibly, regulation of these providers. The articulation of roles between these providers may need refining, along with decisions regarding certification, delegation, and oversight.

Nursing Education and Practice

Predicting a future nursing workforce depends on the competency of nurses in practice and a robust pipeline of prepared nurses from nursing education programs. The current number of nursing programs, students enrollment, faculty, new graduate employment and employers, and new teaching methods for preparing the future nurse are discussed below in light of new treatments and new health care delivery models.

RN and LPN Programs and Enrollments

Although the number of RN programs has increased by 54% and LPN programs by 19% since 2003, the number of new programs began to level off for RN programs in 2015 and for LPN programs in 2011 (Figure 2). It remains to be seen whether the recent slight downward trend of LPN programs from 2013 to 2016 will continue in the current economic climate (NCSBN, 2017f).

Similar to the number of nursing programs, the number of first-time takers of the National Council Licensure Examination (NCLEX-RN and NCLEX-PN) has leveled off and demonstrated a slight downward trend from 2015 to 2016 (NCSBN, 2017a). From 2015 to 2016, the number of diploma graduates taking the NCLEX-RN increased by 138, and the number of baccalaureate graduates taking the examination increased by 1,780. However, the number of associate degree in nursing graduates taking the examination decreased by 3,726 (NCSBN, 2017a).

Reporting on their enrollment and graduation survey (responses from 874 baccalaureate and higher-degree programs), the American Association of Colleges of Nursing (AACN) (Fang, Li, Kennedy, & Trautman, 2017), found a 3.6% increase in enrollment of generic (entry-level) baccalaureate students (6,947 students). Like the RN workforce, that increase is regional, with the North Atlantic and Midwest each having a 5.2% increase and the South and West seeing decreases of 1.5% and 2.2%, respectively. Fang, Li, Kennedy, and Trautman (2017) also discovered graduations of generic baccalaureate students increased by 2.4% across the nation.

Additionally, the National League for Nursing (NLN, 2017) reported 59% of LPN, 78% of associate degree in nursing, 42% of diploma, and 62% of baccalaureate programs surveyed (655 schools of nursing) turned away qualified applicants. Both AACN and NLN (Fang et al., 2017; NLN, 2017) reported that lack of faculty and clinical sites were the two biggest reasons for programs not accepting qualified applicants.

One limitation to these surveys was that they only captured application numbers, not individuals, meaning many who applied to multiple nursing programs were counted multiple times. Still, these statistics are important for forecasting future needs.

Regarding graduate programs and students, in 2007, 1,874 Doctor of Nursing Practice students enrolled in 53 programs, which grew to 25,289 students in 313 programs by 2016 (Fang et al., 2017). This enrollment growth has not been seen in PhD nursing students. In 2007, 3,982 students were enrolled in PhD programs and in 2016, 4,912 were enrolled.

New Graduate Employment

New graduate RNs are surveyed annually to determine employment rates and potential obstacles to graduates acquiring their first job. In the National Student Nurses' Association 2017 Survey (Feeg & Mancino, 2017), responses from 5,169 new graduates indicated a new graduate RN national employment rate of almost 90%, which is up 5% from the previous year (Feeg & Mancino, 2017). The percentages

vary slightly across the country, from 94% and 92% in the Central and South regions and 88% and 85% in the Northeast and Western regions (Feeg & Mancino, 2017). In the past, there were more regional differences than in 2016 (Feeg & Mancino, 2017), and overall, employment rates of new graduates have improved since 2010. In addition, employment statistics for new nurse graduates are substantially higher than those of graduates from other fields. Only 54.1% of graduates across all disciplines reported having a job offer at graduation, compared with 90% of nursing graduates (National Association of Colleges and Employers, 2016).

Program types differ in employment rates. Graduates from generic baccalaureate programs fare better (92% employment rate) than those from associate degree (84% employment rate) or accelerated baccalaureate (84% employment rate) programs—where students already had a baccalaureate degree in another discipline. The employment rate for those attending for-profit schools was slightly less upon graduation (88%) than for those attending private nonprofit (92%) and public schools (90%) (Feeg & Mancino, 2017).

Faculty

The AACN 2017–2018 survey (Li, Kennedy, & Fang, 2017), with responses from 832 baccalaureate programs, found an 8.6% increase in the total number of full-time budgeted positions from 2016–2017; however, the number of full-time vacancies stayed about the same (7.3%). This trend was seen last year as well and continues to suggest that nursing programs are expanding. In 2017–2018, 128 (15.4%) schools reported that they have no full-time vacancies but still need additional faculty. Nursing schools in need of more faculty positions reported that the two most important barriers to adding full-time employees were insufficient funds and administrative unwillingness to commit to additional full-time positions in nursing. Interestingly, the full-time faculty vacancy rates varied only slightly by region (9.9% – 9.0%), unlike previous years of this survey.

New Teaching Strategies and Considerations

To further ensure safe and competent practitioners, regulators and educators must keep pace with changes and advancements in health care delivery and medicine. Nursing practice and education must reflect these changes or advancements. Competency-based education, professional identity formation, precision medicine, and team-based care will all impact some or many aspects of nursing education.

Competency-based education

Competency-based education differs from traditional time-based education in the learning continuum, the assessments, the faculty relationships, and the design of the educational experiences. Competency-based education is tailored to meet the new challenges facing the health care system and, in particular, health care professionals.

In 2017, the Josiah Macy Jr. Foundation published recommendations from its conference "Achieving Competency Based, Time-Variable Health Professions Education." The conference brought together 39 health professionals consisting of physicians, nurses, pharmacists, educational theory and reform experts, medical residents and accreditors (Josiah Macy Jr. Foundation, 2017). The group reviewed the current health care system challenges, including fragmentation, slow diffusion of biomedical advances, disruptive technology (such as electronic health care records), and ineffective collaboration across health care professions. In response to these challenges, the group proposed revolutionizing the current approach to health care education. Their commitment to competency-based education was demonstrated by the following Consensus Vision Statement (Josiah Macy Jr. Foundation, 2017, p. 5):

> *With the achievement of competency-based, time-variable health professions education, we envision a health care system in which all learners and practitioners are actively engaged in their own education and continuing professional development to improve the health of the public. In this system, learners and faculty partner to co-produce learning, all practitioners are life long learners, and all health care environments place a high value on learning.*

Although the group called for full implementation of a competency-based model requiring all stakeholders, including regulators, to be involved in this transformation, no nurse regulators were invited to the conference. Since regulators play an important role in nursing education, it is imperative that regulators be at the table for future discussions.

Professional identity formation

Professional identity formation is a "sense of oneself that is influenced by characteristics, norms, and values of the nursing discipline, resulting in an individual thinking, acting, and feeling like a nurse" (Godfrey & Crigger, 2017). First described by Benner, Sutphen, Leonard, and Day in 2010, professional identity is beginning to replace earlier related terminology, such as professional role and professionalism. Day et al. (2017) describe a prenursing course that facilitates professional identity formation. They assert that starting identity formation early in the nurse's career will impact a new nurse's readiness to practice and may contribute to a more successful transition to practice. Some strategies for fostering identity formation are using guided reflection, clarifying values, sharing personal information within a safe environment, and building relationships (Day et al., 2017; Godfrey & Crigger, 2017). Professional identity formation also may play a major role in ethical reasoning, which is of prime importance to regulators as many violations reported to BONs are related to a lack of ethical and professional decision making (NCSBN, 2015).

Precision medicine

One of the most important advancements promising to impact all aspects of health care is the Precision Medicine Initiative announced by President Obama during his 2015 State of the Union Address (State of the Union, 2015). This enterprise promises to have many implications for the nursing workforce, including how nurses at all levels are educated and practice.

Simply described, precision medicine aims at "discovering the right treatment, for the right patient, at the right time" (National Institutes of Health [NIH], 2018). It considers a plethora of factors and circumstances that differ widely from individual to individual and can cause huge variations in illness and outcomes. Prevention, diagnosis, and treatment are based on the patient's genome, lifestyle, environment, and other personal characteristics that enable scientists to target their efforts to the individual and eliminate variations in outcomes. These advancements will necessitate a rigorous assessment of the current curricula for changes and additions to the undergraduate and graduate nursing curricula.

The Precision Medicine Initiative will require new nursing skills and knowledge, including big data analytics, genetics, pharmacogenomics, and use of new technology. New discoveries will lead to more effective diagnostics and cures, and treatments will advance for pain management, nausea, and fatigue. Nurses will need to interpret and understand a cadre of new tests as well as their ethical, legal, and social implications as part of their role in providing patient-centered and personalized care. Determining how to integrate this knowledge with lifestyle and environmental factors will also be needed (Cheek, Bashore, & Brazeau, 2015; Williams et al., 2016). To function safely and effectively in this upcoming era, nurses will require the ability to use technology and health information. Students pursuing graduate degrees must be able to analyze big data and translate findings into innovative care management (Eckardt et al., 2017).

Most states require continuing education for licensure renewal. Although states may not want to be prescriptive in their requirements, the many aspects of precision medicine new to nursing could provide content for future continuing education courses. Courses that help nurses learn precision medicine concepts, family assessment, genetic testing, pharmacogenomics, and other emerging aspects of precision medicine will be needed.

Team-based care

Bauer and Bodenheimer (2017) predict a dramatic shift in the RN role in primary care as the demand for primary care providers and services increases alongside payment models that allow for add-on payments for RN-delivered services in primary care settings. As primary care practices use team models to greater extent, the scope of RNs in primary care will include managing chronic disease, leading complex care management teams, and coordinating care between the primary care practice and communities (Bauer & Bodenheimer, 2017).

Since certified nurse practitioners and physician assistants now comprise over 40% of the primary care workforce, and as the number of primary care physicians continues to decline, a reorganization of health systems and care may be the solution to the impending primary care shortage (Streeter, Zangaro, & Chattopadhyay, 2017). Health care needs are already beginning to surpass the system's scope (Poghosyan, Liu, Shang, & D'Aunno, 2017). In the move toward precision medicine, interdisciplinary teams composed of an array of health professional experts take on more active roles in patient care. Rather than merely serving as support for the physician, other interdisciplinary team members use their individual specialized skills to focus on managing certain aspects of a patient's care. Studies have demonstrated that interdisciplinary teams are a worthwhile alternative to our current health care structure (Purcell et al., 2017).

Exploring New Methods of Regulation and Evaluation

As changes in nursing education occur, the responsibility of regulating and evaluating programs and program testing becomes essential to the maintenance of a quality education for new nurses and to the delivery of quality patient care.

Program approval

BONs continually strive to improve upon the effectiveness of nursing education regulation, and in 2018, regulators are and will be exploring new ways to regulate and evaluate nursing programs. Currently, BONs that approve the nursing education programs in their state use the standards developed in their rules and regulations, which are often based on NCSBN's model education rules (NCSBN, 2017c). BONs have reported one of the biggest challenges in regulating nursing education programs was the lack of evidence-based regulatory quality indicators of nursing programs for making program approval decisions. Another commonly reported challenge was the shortage of qualified faculty and what strategies to use when qualified faculty are not available. What leeway should BONs allow given these challenges? Faculty and administrator turnover have been linked to poor program outcomes (NCSBN unpublished findings, 2017). The lack of clinical sites and clinical site barriers (such as restricting the number of students or not allowing students to administer medications) are other major challenges when approving programs.

BONs also reported difficulties students encountered while enrolled in a program in another state. At issue is how to regulate these programs, particularly when the standards between the states might differ. Nursing programs must adhere to the education requirements in each state where their students are located, a fact of which faculty are often unaware.

Testing and licensure examinations

Licensure and certification examination administrators have been pervasively reassessing traditional multiple-choice examinations delivered in brick-and-mortar testing centers. Examination administrators are exploring the use of alternative assessment tools that better evaluate clinical judgment rather than simple recall of knowledge. These alternative assessments include the use of new item types and item scoring, including self-assessment examinations with test, feedback, simulation, and study and retest features. In addition, examination administrators are piloting the use of alternative assessment delivery such as Web-based tests with remote proctoring. Examination developers are also beginning to explore alternatives to one-time, end-of-training assessments that include preliminary competency testing during training, postlicensure/certification periodic assessments of continued clinical competency and acquisition, and use of new knowledges of best practices. The perceived advantages of these alternatives include:

- Improved evaluation of ability to practice safely and effectively
- Increased support/incentive for lifelong learning
- Decreased concern over item security, exposure, and theft of examination content, as where preknowledge of the item has less impact on performance on the new item types
- Improved management of time and money.

The administration of state licensure examinations must adhere to the constitutional requirements that any licensure examination bear a rational relationship to fitness for professional practice and may not discriminate against a protected group in its development or administration. Additionally, the administration of state licensure examinations must provide reasonable accommodations under Titles II and III of the Americans with Disabilities Act. In the case of the NCLEX-RN and NCLEX-PN, state BONs are responsible for determining whether a specific accommodation may be granted. Obligations to grant accommodation sought by a candidate have grown more stringent subsequent to revisions to the Americans with Disabilities Act and the court's adoption of the standard that accommodations need to be granted "to best ensure that the results accurately reflect the individual's KSA [knowledge, skills, and abilities] which the test is designed to measure rather than reflecting the effects of an individuals' disabilities unrelated to the measured KSA" (*Doe v. Law School Admission Counsel, Inc.*, 2017). Of concern to NCSBN, some individuals have requested the NCLEX be administered in a non-CAT format to permit review and revision of past questions.

Current Social and Health Care Issues

Changes in the nursing workforce and nursing's educational system are not the only challenges influencing the regulation and the practice of nursing today. Societal behaviors, including violence against nurses, caring for patients using medical or recreational cannabis, and the opioid epidemic, also have a significant influence.

Violence Against Nurses

Violence against nurses in the workplace, especially in the hospital setting, has been referred to as an epidemic and is considered a serious health hazard and public health crisis. According to the U.S. Department of Labor, Occupational Safety and Health Administration (2016), workplace violence is defined as "any act or threat of physical violence, harassment, intimidation, or other threatening disruptive behavior that occurs at the work site." Nursing is one of the most dangerous jobs in the United States. In fact, nurses are assaulted more often than police officers and prison guards (Dvorak, 2017). Violence from patients and visitors is often associated with long wait times (especially in the ED), lack of information, crowding, receipt of bad news, stress, and poor coping skills (Casey, 2017; Hackethall, 2016). Nurses and other health care workers often do not report incidents of patient and/or visitor aggression and violence due to fear of retaliation from their employers.

Beyond the physical pain associated with being a victim of violence, psychological effects are experienced as well, including post-traumatic stress disorder (PTSD). It is important for employees to have employer support and a culture of safety to feel secure. From a financial perspective, employers incur the costs of workplace violence associated with the lost work days, increased turnover, the costs related to treatment of physical and psychological results, and the stress on other employees (Yarovitsky & Tabak, 2009). Bullying also has been associated with a negative work environment that impacts job satisfaction, morale, and health and well-being of employees. These negative impacts affect patient safety and can lead to absenteeism and intention to leave one's job and the profession.

Solutions and approaches

The International Council of Nurses (2017) recently revised its workplace violence position statement to support development of "zero-tolerance" policies of violence in any form. Hospitals are beginning to address the mindset that incidents of violent behavior are part of the job by taking a systems-based approach, rather than a reactive incident-specific approach, to its elimination (Stempniak, 2017). However, data are needed to understand the scope of workplace violence and to identify where to target resources to address and prevent it. For example, implementing an employee call center to report verbal and physical incidents is one approach to collect data and respond accordingly to reduce violence. By taking a data-based approach, hospitals and other workplace settings can move toward the prevention of violence. Another health care system formed a multidisciplinary assault-reduction team that used assault data and created a Behavioral Emergency Response Team (Code BERT). Similar to Rapid Response Teams that react to patient emergencies, these multidisciplinary teams respond at any time to actual or potential violent situations (Stempniak, 2017). Other strategies include staff training to recognize signs of escalating behavior and learning de-escalating techniques and other methods of violence prevention.

Professional organizations also advocate that hospitals and other health care settings have "zero-tolerance" policies for workplace violence and assist in developing and implementing such policies. An American Nurses Association (ANA) position statement emphasizes the ethical, moral, and legal responsibility of health care employers to create a healthy and safe work environment for RNs and other health care team members, patients, families, and communities (American Nurses Association, 2015). AACN published its six Healthy Work Environment standards relating to skilled communication, true collaboration, effective decision making, appropriate staffing, meaningful recognition, and authentic leadership (Blake, 2016). The American Organization of Nurse Executives and the Emergency Nurses Association developed a list of eight guiding principles on mitigating workplace violence and recommended implementing health workplace safety assessments and de-escalation training techniques.

State and federal organizations and hospital accreditors also are addressing the epidemic of violence against nurses and other health care workers. The Office of Occupational Safety and Health Administration (OSHA) has guidelines for preventing workplace violence for health care and social service workers (U.S. Department of

FIGURE 3

Cannabis Legislation

Type of Provision	States
Medical Marijuana Program	AK, AR, AZ, CA, CO, CT, DC, DE, FL, HI, IL, LA*, MA, MD, ME, MI, MN, MT, ND, NH, NJ, NM, NV, NY, OH, OR, PA, RI, VT, WA, WV
Allow cannabidiol (CBD) products for intractable seizures (many are restricted to clinical studies)	AL, GA, IA, KY, MO, MS, NC, OK, SC, TN, TX, UT, WI, WY
Allow APRNs to certify a qualifying condition referred to in state medical cannabis statute	HI, ME, MA, MN, NH, NY, VT, WA
No cannabis statutes	ID, IN, KS, NE, SD, VA
Recreational use of cannabis	AK, CA (passed, but start date is 2018), CO, MA, ME (passed, but start date is 2018), NV (passed, but start date is unknown), OR, WA

* Louisiana lacks the necessary infrastructure to enact their medical marijuana program and the state's previous statutory language failed to grant necessary protections to physicians and users. Legislators have yet to decide who will be the legal cultivators for the state and how to regulate pharmacies that will distribute medical cannabis.

Labor, Occupational Safety and Health Administration, 2016) and recently announced plans to issue a regulation on violence to protect health care workers.

Several states have introduced new bills proposing to raise the punishment for harming a nurse; in 2018, Florida and Hawaii have such legislation pending (Fla. Legis., 2018; Hawaii Legis., 2018). The Centers for Disease Control and Prevention (CDC)/OSHA course, "Workplace Violence Prevention for Nurses," is an applicable tool for educators and administrators (Centers for Disease Control and Prevention [CDC], 2017a).

Caring for Patients Using Cannabis

Thirty-one states (including the District of Columbia), Guam, Puerto Rico, and all Canadian provinces/territories have legalized medical cannabis (Figure 3). An increasing proportion of these states have also decriminalized and legalized recreational cannabis use (National Conference of State Legislatures, 2017b). The surge of legislation has outpaced research, leaving nurses with a lack of evidence-based resources when caring for patients who use medical or recreational cannabis. Without experimental evidence that is scientifically rigorous, statistically reportable and based on patient populations, nurses will face increasing challenges about medical cannabis.

Cannabis and its derivatives have been classified as Schedule I substances since the enactment of the Controlled Substances Act in 1970. This Drug Enforcement Administration (DEA) classification not only prohibits practitioners from prescribing cannabis, it also prohibits most research using cannabis, except under rigorous oversight from the government.

In October 2009, the Obama Administration discouraged federal prosecution of people who distribute marijuana for medical purposes in accordance with state law (U.S. Department of Justice, Office of Public Affairs, 2009). Numerous federal bills have been introduced in recent years to reschedule marijuana to allow more research, but as of 2017, none have passed the House of Representatives or the Senate (Compassionate Access, Research Expansion, and Respect States Act of 2015; Ending Federal Marijuana Prohibition Act of 2017; Regulate Marijuana Like Alcohol Act, 2015; Restoring Board Immunity Act, 2017).

In 2016, congressional representatives called on the DEA to reschedule cannabis (Bernstein, 2016). The Food and Drug Administration (FDA) conducted a scientific evaluation, medical evaluation, and scheduling recommendation in consultation with the National Institute on Drug Abuse in response to the congressional petitions. The DEA denied petitions to reschedule marijuana as a Schedule II drug or lower, stating that marijuana will remain a Schedule I controlled substance because the DEA considers it to have a high potential for abuse with no medical benefit.

High-quality clinical evidence has emerged establishing the efficacy of cannabis for certain therapeutic applications; however, its safety has not been fully established by large-scale, randomized clinical trials. Fifty-seven qualifying conditions are included across different jurisdiction; the most common of these are amyotrophic lateral sclerosis, Alzheimer disease, arthritis, cachexia, cancer, Crohn disease and other irritable bowel syndromes, epilepsy/seizures, glaucoma, hepatitis C, HIV/AIDS, nausea, neuropathies, pain, Parkinson disease, persistent muscle spasms (including multiple sclerosis), PTSD, sickle cell disease, and terminal illness. For most of the qualifying conditions, sufficient experimental evidence does not exist to reasonably demonstrate therapeutic efficacy, comparative efficacy to standard medications, dosage, tolerability, and safety. Many researchers and medical organizations hope future research will be less restricted and allow more scientific evidence to elucidate well-founded dosages, delivery routes, and indications.

Regulatory and nursing implications

For nurses and nurse regulators, the current state of cannabis in the nation provides unique challenges. The U.S. population is becoming more accepting of cannabis and its use as medicine, but historical stigmatization is still prevalent (Bottorff et al., 2013; Satterlund, Lee, & Moore, 2015; Swift, 2016). The inherent risk to patients in this cli-

mate is an optimistic belief in effects that may not exist, especially when standard medications are bypassed altogether in the pursuit of what cannabis may treat or cure (Pergam et al., 2017). A recent survey suggests a substantial number of marijuana dispensary staff are giving medical advice without formal training (Haug et al., 2016). Lack of knowledge is not isolated to patients and dispensary staff. A recent NCSBN survey of U.S. nursing colleges revealed that very few schools dedicate much time to cannabis except as a substance of abuse (NCSBN unpublished findings). This survey also showed that if a jurisdiction does not have a medical marijuana program, the nursing programs do not teach the therapeutic effects of cannabis.

Use of cannabis by nurses

Policy and legal issues confound this uncertain mixture of medical fact and subjective reporting. NCSBN's survey of state BONs demonstrated that state boards are currently examining their policies for out-of-state use of cannabis by nurses in jurisdictions where it is legal (NCSBN unpublished findings). Nurses who use recreational cannabis while on vacation may test positive days or weeks after their last dose. How boards and facilities respond to a positive screen at work and/or a confession of out-of-state use will be a growing issue in the coming years. Outside of recreational use, nurses may seek cannabis as a therapeutic treatment in jurisdictions where it is legal.

Most facilities maintain a zero-tolerance policy regarding positive drug use, but within the past 2 years, this question of legal use has caused difficulties for employers. One prominent court case (*Barbuto v. Advantage Sales & Mktg*, 2017) ruled that outside of federal employment, Massachusetts employers are required to accommodate the offsite use of medical marijuana for qualifying conditions of the Americans with Disabilities Act. The court allowed that safety-sensitive positions and on-site use and/or impairment are grounds for rejecting a proposed accommodation. Nurse regulators will need to contend with what constitutes undue hardship for various roles and positions for the possible accommodation of medical cannabis use among practicing nurses.

Finally, nurses must become knowledgeable about their jurisdiction's rules and statutes as well as about their facilities' policies. It is increasingly likely nurses will encounter patients taking cannabis as a therapeutic agent. Depending on the jurisdiction and setting, this scenario could result in either having the cannabis removed from the health care facility premises by police or having the nurse assist the patient administering the cannabis.

The Opioid Epidemic

President Trump declared the opioid crisis a national emergency in 2017. Widespread opioid use, addiction, and related consequences remain a major focus in the United States. National reporting of important data related to opioid use was delivered, and several new guidelines and strategies were published to help end the opioid epidemic. Many initiatives in 2017 related to proper prescribing for acute-care opioids, while others focused on the treatment of individuals with substance use disorder.

Released in 2017, the 2016 National Survey on Drug Use and Health (Substance Abuse and Mental Health Services Administration [SAMSHA], 2017a) found prescription and illicit opioid use continued to be an unabated problem in the United States with 11.8 million people having misused opioids in 2016 and 11.5 million of those having misused prescription pain relievers. Data from the CDC Report (CDC, 2017b) show that although the number of opioid prescriptions written by health care providers decreased through 2015, opioid prescribing is still too high and inconsistent across the United States. According to a new Agency for Healthcare Research and Quality report (Weiss et al., 2017), there was a sharp increase in hospitalizations involving opioids, with 1.27 million ED visits or inpatient stays for opioid related issues in 2014. CMS' online Opioid Prescribing Mapping Tool (CMS, 2017b) provides U.S. geographic comparisons at the state, county, and ZIP code levels of de-identified Medicare Part D opioid prescription claims—prescriptions written and then submitted to be filled. This tool assists in understanding how this critical issue impacts both communities and individuals nationwide.

Policies and initiatives

The ACP's policy statement on the prevention and management of substance use disorder as a treatable chronic medical condition included the following recommendations: (a) expand naloxone access for overdose prevention to opioid users, law enforcement, and emergency medical personnel; (b) improve access to medical-assisted treatment; and (c) lift barriers that limit access to medications for treating opioid use disorder, such as methadone, buprenorphine, and naltrexone (Crowley et al., 2017). Furthermore, the ACP emphasizes addressing substance abuse stigma in the general population and medical community, recommends treatment through individual and public health interventions, and calls for health insurance coverage of mental health conditions. The ACP also recommends expanding the professional workforce who treat patients with substance abuse and embedding training for such treatment throughout medical education.

To help states identify resources and methods to address opioid abuse, Congress passed the 21st Century Cures Act (21st Century Cures Act, 2016). One billion dollars in funding has been designated to states for the following: (a) improving prescription monitoring programs, (b) conducting research, (c) developing prevention and treatment programs, and (d) providing prescriber and consumer education (Clifford, 2017).

The National Academy for State Health Policy's brief discusses two evidence-based interventions: (a) screening, brief intervention, and referral to treatment and (b) medication-assisted treatment (Townley & Dorr, 2017). The National Academies of Sciences, Engineering and Medicine's report (2017) calls on regulators to overhaul opioid policies, weigh the societal impacts of opioids when approving or recalling drugs, invest in research to better understand the nature of pain, and develop nonaddictive alternatives.

Several other agencies created or updated their own opioid policy guidelines. The Federation of State Medical Boards (2017) adopted updated guidelines for chronic use of opioid analgesics. The guide-

lines include updated criteria for use by state medical boards in areas such as patient assessments, evaluations, and ongoing monitoring, use of treatment agreements, decision to initiate and discontinue opioid therapy, and prescribing of naloxone and methadone. The American College of Obstetricians and Gynecologists (2017) developed a committee opinion on Opioid Use and Opioid Use Disorder in Pregnancy. The Office on Women's Health conducted national and regional meetings to learn more about opioid use and misuse in women (Office on Women's Health, 2017).

One provision of the 2016 Comprehensive Addiction and Recovery Act (CARA) expanded access to substance use treatment services and overdose reversal medications, including services from prevention to medication-assisted treatment and recovery support. Both certified nurse practitioners and physician assistants have the privilege to prescribe buprenorphine in office-based settings via a prescribing waiver until October 1, 2021 (CARA, 2016). In 2017, the Substance Abuse and Mental Health Service Administration (SAMHSA) announced its waiver process for NPs who have completed the 24 hours of required education for medication-assisted treatment of substance abuse (SAMHSA, 2017b).

Prescription drug monitoring programs (PDMPs) and electronic prescribing were found to be useful tools in addressing the opioid epidemic. According to a Surescripts (2017) report, a 256% increase in electronic prescribing of controlled substances occurred from 2015 to 2016 as prescribers and pharmacies embraced technology, a trend that assists in addressing the opioid abuse epidemic by decreasing fraud and diversion. A study from the National Survey of Drug Use and Health (Ali, Dowd, Classen, Mutter, & Novak, 2017) found that in states requiring practitioners to consult a PDMP database before writing an opioid prescription, the odds of two or more practitioners prescribing pain relievers for nonmedical purposes to a single patient were reduced by 80%.

Insurers are also participating in opioid risk management programs by closely scrutinizing claims to make sure patients are receiving opioids in the right amount, at the right time, and from the right place (Japsen, 2017). By reviewing dosages against the CDC recommended dosage, one insurer saw an 82% decrease in a specific opioid prescription beyond the CDC guidelines since the employment of the opioid risk management program. CVS Health announced it will limit the supply of opioids dispensed for certain acute prescriptions to 7 days for patients who are new to therapy (Cision PR Newswire, 2017).

Many states passed a variety of legislation attempting to combat the opioid epidemic. These bills often provide greater flexibility in the number of health care professionals allowed to prescribe and dispense opioid antagonists, which requires opioid training in the form of continuing education and requiring the use of PDMPs.

Several lawsuits, penalties, and actions were brought against opioid manufacturers in 2017. Ohio became the first state to sue an opioid manufacturer when the Ohio Attorney General filed a lawsuit against five prescription opioid manufacturers alleging the drug companies engaged in fraudulent marketing regarding the risks and benefits of prescription opioids (Ohio Attorney General, 2017).

What nurse regulators and BONs can do

How can the nursing profession and nurse regulators contribute to end this epidemic? BONs can participate in state government efforts to identify next steps and solutions to the opioid epidemic. BONs can also participate in creating or promoting state-based initiatives to create evidence-based guidelines and resources.

Other efforts include promotion of the following:

- Ongoing education for nurses about the opioid epidemic via newsletter, website, or continuing education
- NCSBN gathered current information regarding opioid prescribing guidelines, continuing education, and federal, state and international resources into an opioid toolkit housed on the NCSBN website (NCSBN, 2017d).
- Prescription Drug Take-Back Days (U.S. Department of Justice, Drug Enforcement Administration, 2017a)
- Use of prescription drug monitoring programs (U.S. Department of Justice, Drug Enforcement Administration, 2016)
- Use of controlled substance disposal safe practices (U.S. Department of Justice, Drug Enforcement Administration, 2017b)
- Ongoing education to identify substance use disorder in patients and nursing professionals.

Conclusion

We are entering a new era of "precision," based on the premise that what works for one person may not be suitable for another due to numerous factors from individual genetic profiles to individual environments and lifestyles. The new science of predictive data analytics uses large data to make decisions, such as the best and safest treatment for an individual patient.

All levels of nurses will need to practice to their full potential and expand their knowledge and skills to care for the patients in this new era that may be closer than anticipated. Regulators can prepare for these changes, and use them as evidence that the regulatory system is as much in need of transformation as the health care system.

Most Challenging Nursing Regulatory Issues in 2018 and Beyond

- Workforce mobility no longer implies that nurses want to live in one state and practice in another. Patients are increasingly mobile and, using advancements in technology, can be monitored from anywhere in the world. Nurses monitoring patients in states outside the enhanced Nurse Licensure Compact will require a license in every state where the patient is located.
- Expect changes in workforce needs with a shift towards primary care and public health.
- Community health workers and community paramedics will continue to grow in number and, potentially, the expansion of their skills will overlap nursing's role if nursing does not take a more active involvement in reaching rural and underserved areas.

- Nurses of all levels need to be knowledgeable in genetics, pharmacogenomics, and genetic testing and have skills in taking a family history and interpreting and explaining genetic testing.
- Precision medicine will require interdisciplinary teams. Nursing, medicine, and other health care disciplines need to collaborate and work as equal partners in patient care.
- Team-based care may require team-based regulation.
- Advancements in scope of practice and allowing practitioners to practice to the full extent of their ability is of prime importance.
- Important social and professional issues require nursing's attention: violence in the workplace needs to be managed and addressed by nurse leaders; as states legalize both medicinal and recreational marijuana, questions continue to arise as to the impact on patient safety and the impairment of a health professional; and the opioid epidemic continues to be a paramount issue for both the nursing profession and the health of the general public.

Information in this article was adapted from Progress and Precision: The 2018 Environmental Scan by National Council of State Boards of Nursing Regulatory staff. Go to www.ncsbn.org or www.journalofnursingregulation.com for the full report.

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The Nursing Regulatory Environment in 2018: Issues and Challenges

Objectives

- Discuss the current, comprehensive portrait of nursing in the United States, including emerging issues and challenges.
- Describe the current state of nursing and our readiness to enter the modernized era of health care.
- Explain fluctuations in the nursing workforce by state and region of the country.
- Name a solution to improving nursing workforce mobility and access to care.
- Identify nursing considerations in emerging new models for the delivery of health care.
- Analyze nursing implications of emerging roles of other members of the health care team.
- Predict how nursing education programs will prepare competencies of the future nursing workforce.
- Form regulatory solutions to three current social issues.

Ce

CE Posttest

If you reside in the United States and wish to obtain 1.5 contact hour of continuing education (CE) credit, please review these instructions.

Instructions

Go online to take the posttest and earn CE credit:

Members – www.ncsbninteractive.org (no charge)

Nonmembers – www.learningext.com ($15 processing fee)

If you cannot take the posttest online, complete the print form and mail it to the address (nonmembers **must** include a check for $15, payable to NCSBN) included at bottom of form.

Provider accreditation

The NCSBN is accredited as a provider of CE by the Alabama State Board of Nursing.

The information in this CE does not imply endorsement of any product, service, or company referred to in this activity.

Contact hours: 1.5
Posttest passing score is 75%.
Expiration: April 2021

Posttest

Please circle the correct answer.

1. How can the nursing workforce contribute to safe and quality patient care?
a. Collect workforce data with licensure renewals.
b. Provide sufficient numbers of nurses at all levels.
c. Forecast and plan for shortages.
d. All of the above.

2. Studies predict which of the following in the nursing workforce?
a. Shortages
b. Surpluses
c. Both shortages and surpluses
d. None of the above.

3. Which states have the highest ratios of employed RNs per population?
a. Maine and most of the western states except for California
b. South Dakota, Massachusetts, Delaware, and the District of Columbia
c. Illinois, Indiana, and Wisconsin
d. New York, New Jersey, and Vermont

4. Projections made from the Health Workforce Microsimulation Model estimated which of the following by 2030 (choose all that apply)?
a. The growth in RN supply will outpace the growth in RN demand.
b. The growth in LPN supply will outpace the growth in LPN demand.
c. The imbalance in RN supply and demand could result in a national-level shortage.
d. The imbalance in LPN supply and demand could result in a national-level shortage.

5. The predominant employers of RNs and LPNs/VNs will be:
a. Government facilities
b. Hospitals and long-term care facilities, respectively
c. Educational services
d. Home health care services

6. What was the solution to increasing the number of compact states?
a. Diversify state licensure requirements.
b. Eliminate the required use of criminal background checks.
c. Adoption of the enhanced nurse licensure compact (eNLC)
d. Require nurses to obtain a license in each state of practice.

7. Which is not a way that the eNLC increases public protection?
a. Mandates specific nursing licensure requirements for participating states
b. Provides improved access to care though greater workforce mobility
c. Enhances telehealth nursing
d. Restricts nurses from providing care to patients across state borders

8. What is the distinction between the APRN Compact and the NLC?
a. The APRN Compact affords the same advantages to APRNs that the NLC provides.
b. The APRN is restricted from prescribing without supervision by, or collaboration with, another profession.
c. The APRN may practice physically but not telephonically in another compact state.
d. The APRN must apply and pay for an additional license to practice on a multistate privilege in other participating states.

9. A greater proportion of nursing employment will be seen in ambulatory and home care settings.
a. True
b. False

10. What will become a routine part of nursing care in the home and community environment?
a. Robots
b. Remote patient monitoring
c. Limited capability of wearable electronic devices
d. Fewer patients able to return home due to monitoring needs

11. What is a barrier for nursing practice via telehealth?
a. Job security
b. Robots
c. Barriers to licensure
d. None of the above

12. How does the emerging role of the community health worker (CHW) impact nursing practice?
a. There is no impact because the CHW functions the same way as certified nurse assistants (CNAs) and home health aides.
b. There is no impact because the CHW is not a recognized member of the health care team.
c. Studies indicate that CHWs enhance team-based outcomes and interventions.
d. Some nursing responsibilities may be provided by the CHW.*

13. What is nursing's role, if any, in the oversight of the CHW and Community Paramedic (CP)?
a. Nursing regulators play an active part in role development and, possibly, regulation of these providers.
b. The CP already has a clearly defined scope of practice.
c. Evidence suggests that neither CHWs nor CPs can fulfill their roles in care planning, patient education, and culturally competent patient interventions without nursing supervision.
d. There is no role for nursing oversight because the CP model of care does not allow EMTs and paramedics to practice beyond their traditional emergency-response roles.

14. Which educational model is described as follows, "...learners and practitioners are actively engaged in their own education and continuing professional development to improve the health of the public"?
a. Traditional time-based education
b. Competency-based education

15. Which concept is described as a "sense of oneself that is influenced by characteristics, norms, and values of the nursing discipline, resulting in an individual thinking, acting, and feeling like a nurse" (Godfrey & Crigger, 2017)?
a. Professional role
b. Professionalism
c. Professional identity
d. None of the above

16. Care delivery models are expected to shift as follows:
a. Team based care to primary care
b. Less interdisciplinary involvement
c. Less focus on precision medicine
d. Primary care to team models

17. Which choice is NOT a challenge in regulating nursing education programs?
a. Lack of standards and model education rules
b. Lack of evidence-based regulatory quality indicators for making program approval decisions
c. Shortage of qualified faculty
d. Lack of clinical sites and clinical site barriers

18. Which social issue has been associated with a negative work environment that impacts job satisfaction, morale, and health and wellbeing of employees?
a. Opioid epidemic
b. Cannabis
c. Bullying
d. None of the above

19. 19) Choose two ways that nursing regulators can solve current social and health care challenges?
a. Limiting the availability of prescription opioids
b. Examine policies for out-of-state use of cannabis by nurses in jurisdictions where it is legal
c. Implementing an employee call center to report verbal and physical incidents
d. Create Board of Nursing (BON) evidence-based guidelines

20. Modernization of health care cannot adequately be achieved without the participation of nursing.
a. True
b. False

Evaluation Form (required)

1. Rate your achievement of each objective from 5 (high/excellent) to 1 (low/poor).

- Discuss the current, comprehensive portrait of nursing in the United States, including emerging issues and challenges.
  1 2 3 4 5
- Describe the current state of nursing and our readiness to enter the modernized era of health care.
  1 2 3 4 5
- Explain fluctuations in the nursing workforce by state and region of the country.
  1 2 3 4 5
- Name a solution to improving nursing workforce mobility and access to care.
  1 2 3 4 5
- Identify nursing considerations in emerging new models for the delivery of health care.
  1 2 3 4 5
- Analyze nursing implications of emerging roles of other members of the health care team.
  1 2 3 4 5
- Predict how nursing education programs will prepare competencies of the future nursing workforce.
  1 2 3 4 5
- Form regulatory solutions to three current social issues.
  1 2 3 4 5

2. Rate each of the following items from 5 (very effective) to 1 (ineffective):

- Were the authors knowledgeable about the subject?
  1 2 3 4 5
- Were the methods of presentation (text, tables, figures, etc.) effective?
  1 2 3 4 5
- Was the content relevant to the objectives?
  1 2 3 4 5
- Was the article useful to you in your work?
  1 2 3 4 5
- Was there enough time allotted for this activity?
  1 2 3 4 5

Comments: _____

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