October 2017

NCSBN FY2017-2019 Research Priorities and Research Agenda

Introduction
The National Council of State Boards of Nursing (NCSBN) provides education, service, and research to promote evidence-based regulatory excellence for patient safety and public protection. The goal of research at NCSBN is to advance the science of nursing regulation and generate robust, valid, and reliable evidence that meets the needs of NCSBN members and stakeholders.

The NCSBN research priorities articulate the broad areas of regulation that NCSBN wishes to focus on and direct national attention to over a three-year period. They are based on the current organizational strategic plan. The proposed FY2017-2019 priorities are intended to help achieve the following FY2017-2019 Strategic Plan initiatives: A) Envision and refine regulatory systems for increased relevance and responsiveness to changes in health care and B) Champion regulatory solutions to address borderless health care delivery

NCSBN Research Priorities for FY2017-2019:
1. Identify gaps in scientific evidence around nursing regulatory issues and generate evidence to support decision-making by nursing regulatory boards
2. Develop robust performance and competency measures that help boards of nursing achieve operational excellence and efficiency in protecting the public
3. Facilitate the generation and transfer of knowledge to assist states in adopting and enacting the APRN Consensus Model and the enhanced National Licensure Compact (eNLC).

The NCSBN Research Agenda
The NCSBN research agenda describes the approach for achieving the research priorities via the various programs that conduct and support research at NCSBN. NCSBN research programs include the Center for Regulatory Excellence (CRE), including the Regulatory Scholars Program, the Institute for Regulatory Excellence (IRE), and the NCSBN Research Department within Nursing Regulation. NCSBN committee work often requires scientific inquiry and thus is part of the research agenda.

The FY2017-2019 Preliminary Research Agenda incorporates requests for evidence from NCSBN members and reflects outcomes from the NCSBN Regulation 2030 conference. Based on the types of evidence desired, NCSBN research programs will continue to include and support experimental and quasi-experimental designs, systematic reviews, multi-center studies, and non-experimental survey designs along with collaboration with BONS, service providers, and centers of academic excellence. Requests for proposals are issued through the CRE grant program to solicit the highest quality proposals from researchers with expertise in specialized areas. In carrying out the FY2017-FY2019 Research Agenda, special attention will ensure that scientific inquiry efforts are synergized and findings are leveraged across the organization.

Organization of the FY2017-2019 Preliminary Research Agenda
In each priority area, topics for research are presented along with ongoing projects from the different NCSBN research programs. Suggestions for additional research in each priority area are provided as well as examples for studies appropriate for researchers involved in any of the NCSBN research programs.

FY2017-2019 Preliminary Research Agenda

Priority Area 1: Identify gaps in scientific evidence around nursing regulatory issues and generate evidence to support decision-making by nursing regulatory boards
The fast pace of change in the health care environment has significant implications for regulators. To advance regulatory systems that support contemporary health care, BONs require innovative evidence in the areas of discipline, education, practice, licensure and the nursing workforce.

A) **Nurse Discipline**
   Discipline of nurses continues to consume a majority of BON time and resources. To enhance right-touch regulation and risk-based sanctions or discipline, BONs require evidence of the efficiency and effectiveness of disciplinary actions and programs.
   1) *Ongoing projects*
      a) **NCSBN Research**
         (i) Alternative to Discipline (ATD) Programs for Substance Use Disorders:
            (a) Longitudinal retrospective study of nurse characteristics and ATD program characteristics that are associated with completion of ATD program, relapse, and return to work on a national level.
            (b) Descriptive study of the different types of ATD programs for nurses with SUD in the US and comparative analysis of the effectiveness of the types of ATD programs.
            (c) The results of these two studies may lead us to re-evaluate and update the Substance Use Disorder Guidelines. Boards of nursing establishing their initial Alternative to Discipline Program will pilot a model evidenced-based program.
         (ii) How Do Chief Nursing Officers Handle Errors & Violations of State Nurse Practice Act?
            (a) Cross sectional survey of nursing leadership in hospitals will describe the practices of employers in reporting nurses to the BON for their involvement in an adverse event.
         (iii) Continuing Competency Requirements and Discipline Rates
            (a) A retrospective longitudinal analysis of discipline data will explore potential relationships between discipline in states with different requirements for continued competence and continuing education hours.
         (iv) TERCAP Discipline Database
            (a) In response to BOD recommendations, the TERCAP instrument is being revised to increase relevancy and accuracy in identifying causes of nurse practice errors.
      b) **Institute for Regulatory Excellence**
         (i) Risks, threats, and challenges impacting the decision to report impaired nursing practice (*Idaho and Oregon BONs; June 2018*)
         (ii) Creation of a disciplinary decision-making model applicable to the practice of nursing and ethics (*Minnesota BON; June 2018*)
   2) *Additional Areas for Study*
      Further topics for inquiry include return on investment (ROI) analyses for discipline and remediation programs; studies to increase the understanding of risk by regulators, substance use prevention in nurses, improve collaboration between regulators and employers, and approaches to harmonize discipline nomenclature and frameworks nationally and internationally.

B) Regulatory Oversight of Nursing Education

Research by NCSBN has facilitated the wider use of simulation in pre-licensure education programs in the US and beyond. A follow up study is underway to examine this impact. In addition, BONs are asking for evidenced-based metrics on which nursing program approval can be based. Other education-based studies sponsored by NCSBN focus on international clinical experiences, telehealth, and academic progression.

Ongoing Projects

    a) NCSBN Research

        (v) Use of Simulation in Nursing Education Programs *(study completed; will be published in the January edition of the Journal of Nursing Regulation)*

            (a) Cross-sectional descriptive survey to determine the extent of simulation practices in pre-licensure programs across the US and compare results with the 2013 NCSBN survey of the same purpose.

            (b) Assessment of the impact of the NCSBN Simulation Guidelines on simulation practices in pre-licensure programs and BON regulations for simulation.

    b) NCSBN Committee

    Through a systematic review of the literature and expert knowledge, the Nursing Education Outcomes and Metrics Committee has been charged to identify criteria, in addition to first time NCLEX pass rates, that can be used by a BON during the approval/removal process of nursing education programs.

    c) Center for Regulatory Excellence Studies

        (i) The influences of nursing school characteristics on NCLEX® pass rates: A national study (*Washington State University; October 2017*).

        (ii) Comparing nurse practitioner student learning outcomes in telehealth and face-to-face standardized patient encounters (*George Washington School of Nursing; April 2018*)

        (iii) The growth of for-profit nursing programs and their effect on time to graduate and first time NCLEX exam pass rates *(The George Washington School of Nursing; June 2018)*

        (iv) National study of clinical education in family nurse practitioner programs (*Marquette University; January 2019*)

        (v) Are there outcome differences between NMNEC ADN, BSN, and ADN/BSN co-enrolled students: Testing an educational model for academic progression in nursing *(University of New Mexico Health Sciences Center College of Nursing; April 2019)*

    b) Institute for Regulatory Excellence Projects

        (i) Exploring the feasibility of establishing a consistent standard for the clinical practice component of nursing education *(Hawaii State Board of Nursing; June 2018)*

2) *Additional Areas for Study*

Given that approximately half of US BONs approve APRN programs, additional studies could examine the impact on BON approval on education program outcomes and the use of simulation in APRN education.

C) License Maintenance

As stated in a document in the International Council of Nurses document, *Regulation 2020*, the requirement of life-long learning for licensees can enhance the profession's credibility with the public and provide evidence to support professional self-regulation. Presently, the best solution for

continued competence remains elusive to regulators. However, an NCSBN pilot study in 2015 and the work of the exams department has provided a springboard for further discovery.

Ongoing Projects

   a) NCSBN Research

     An assessment that will identify knowledge gaps and assist BONs in making decisions for licensure maintenance. (To begin in 2018)

   b) Institute for Regulatory Excellence Projects

     (i) Factors that impact engagement of nurses in maintaining or advancing their professional competence (*College and Association of Registered Nurses of Alberta; June 2018*)

     (ii) Jurisprudence examination for APRN licensure (*Kentucky Board of Nursing; June 2018*)

2) *Additional Areas for Study*

Evidence of the impact of harmonized transnational licensure requirements could support BON considerations for developing international licensure requirements in the future.

D) Regulation of Nursing Practice

Regulators require a nuanced understanding of legislative developments that impact nursing practice. The growing legalization of medical and/or recreational marijuana throughout the US poses new challenges for BONs. Data is needed to support regulatory actions. In an effort to provide new evidence and guidelines for practice, we support studies related to nursing regulations in long-term care, patient safety and transition to practice.

1) *Ongoing Studies*

   a) **NCSBN Committee**

The Marijuana Regulatory Guidelines Committee is conducting a systematic review of the literature related to the regulatory implications of legalized uses of marijuana. Data from this research will be used to develop guidelines for the following:

     (i) APRN authorization of marijuana in patient care.

     (ii) APRN, RN, and LPN care of patients using marijuana

     (iii) Assessing safeness to practice of licensees who use marijuana

In addition, the information obtained from the study will be used to develop the following:

     (iv) Recommendations for marijuana-specific curriculum content in APRN education programs.

     (v) Recommendations for marijuana-specific curriculum content in RN and LPN education programs.

   b) Center for Regulatory Excellence Studies

     (i) Long-term care training and provider regulations for optimal resident outcomes (*University of Maryland School of Nursing; October 2017*)

     (ii) Successful transition of new graduate registered nurses in U.S. hospitals: Education, practice and policy implications (*University of North Carolina Chapel Hill; May 2018*)

     (iii) Keeping patients safe: Examining predictors of nurses' fatigue and the moderating effect of inter-shift recovery on patient safety outcomes (*University of Iowa College of Nursing; November 2018*)

2) *Additional Areas for Study*

Technology for telehealth is increasing in power and capability along with consumer demand for remote healthcare delivery. In the absence of global standards for nursing licensure and

telehealth practice, employers, nurses, and patients will look to regulators for evidence of the safety of public consumers of telenursing services. Further work is needed on how regulatory processes can facilitate scope of practice changes that support or enhance patient safety. Study of the evolution of scopes of practice in lower-income countries may provide insight into adaptation of nursing scopes and help inform which aspects of the nursing scope of practice are unique and which can be shared.

E) **Nursing Workforce**
Increased global leadership in regulation will require accurate workforce data at state and national levels. NCSBN will continue to provide members and stakeholders with high quality data for research, improved workforce planning, understanding of workforce flows, and enhance communication of workforce needs between jurisdictions.
  1) *Ongoing Projects*
    a) **NCSBN Research**
      (i) The National Nursing Workforce Survey
          NCSBN will continue to carry out the national survey of nurses in the U.S. The study is currently the primary source for national supply-side data and is the only national survey specifically focused on nurses including LPNs. The next National Nursing Workforce Study began in August of 2017 in collaboration with the National Forum of State Nursing Workforce Centers.
      (ii) NCSBN continues to build the National Nursing Workforce Repository; a project in collaboration with the National Forum of State Nursing Workforce Centers
  2) *Additional Areas for Study*
    As globalization and global and regional trade agreements increase the mobility of services and the nursing workforce, research will be needed to help develop universal practice competencies, and global licensure compacts. Researchers can help drive the need for workforce data that is standardized and transferable across a technological infrastructure in order for regulators to verify nurse credentials and conduct workforce planning that incorporates global workforce flows.

Priority Area 2: Develop robust performance and competency measures that help boards of nursing achieve operational excellence and efficiency in protecting the public

A) **Assist BONs in demonstrating efficiency and effectiveness of organizational functioning and competency in governance using rigorous and valid performance measures**
   In an era of increased scrutiny of regulations and financially constrained environments, BONs must demonstrate their efficiency and effectiveness in carrying out their responsibilities. NCSBN efforts will continue to support BONs in responding to demands for transparency and objective data about regulatory performance.
   1) *Ongoing Projects*
     a) **NCSBN Research**
       (i) BON Discipline Case Measurement
           This project takes performance measurement to the next level as it will specifically analyze the discipline system of each BON, provide objective data, an economic analysis and examine the processes related to public protection. Pilot project to begin Fall of 2017.

      b) NCSBN Committee
- (i) The CORE Committee continues to lead the development of performance measures that are clearly defined, meaningful, objective, and closely reflect the real-time functioning of BONs. In FY 2018, the committee will launch a new reporting system to allow for customized reports of existing and newly developed metrics to demonstrate and compare BON effectiveness. Recommendations for FY2018 charges include an in-depth analysis and revision of BON resource usage data to ensure the soundness of efficiency measures.
- (ii) The CORE Committee will also identify and define performance competencies for key positions within board governance and operations

      b) Institute for Regulatory Excellence
- (i) Development of board members and factors that contribute to their performance and outcomes (*North Carolina Board of Nursing; June 2018*)
- (ii) Comparing outcomes of agencies that regulate all categories of nurses (RNs, LP/VNs and APRNs) to those regulating a single category (*College of Licensed Practical Nurses of Nova Scotia; June 2018*)

2) Additional Areas for Study

Assist BONs to demonstrate that the impacts of proposed regulatory requirements have been thoroughly and objectively assessed, such as through regulatory impact analyses. Researchers can also help develop and implement objective measurement processes across the full range of regulatory responsibilities and disseminate results to foster best practices and lessons learned for boards. Conclusive evidence is still needed related to the comparative effectiveness of various BON structures such as umbrella versus independent.

Priority Area 3: Facilitate the generation and transfer of knowledge to assist states in adopting and enacting the APRN Consensus Model and the enhanced Nurse Licensure Compact (eNLC) and APRN Compact.

  A) Generate evidence to assist states in adopting and enacting the APRN Consensus Model and enhanced Nurse Licensure Compact.

Information on the consequences of state restrictions on APRN practice is critical to getting legislation related to the APRN Consensus Model passed. Data is needed on the social and economic impact of removing barriers to full practice for APRNs.

    1) Ongoing Projects
- **a) NCSBN Research**
  - (i) Examining the Utility of APRN Collaborative Practice Agreements
    Cross-sectional survey of APRNs in states that require collaborative agreements. Data will provide a better understanding of how collaborative practice agreements are actually used by the APRNs and collaborating physicians and if that is likely to confer greater protection to the public. Study is being done in partnership with all four APRN role associations. Data may be used in the 2018 legislative session.
  - (ii) NCSBN is collaborating with a University of Rochester School of Nursing researcher to prepare individualized reports of data on health care demand, access, and number of NP and MD providers for jurisdictions needing these data.

       b) Center for Regulatory Excellence

         (i) Business case for employment of hospital-based advanced practice registered nurses: scope of practice, patient outcomes, nurse retention, financial impact (*University of Florida; April 2018*)

         (ii) Enhancing psychiatric mental health nurse practitioner practice: impact of state scope of practice regulations and the practice environment (*University of California - San Francisco School of Nursing; September 2018*)

         (iii) State Nurse Practitioner Scope-of-Practice Regulation and Access to Health Care in Rural and Primary Care Health Professional Shortage Areas (*University of Rochester School of Nursing*; July 2019)

   2) *Additional Areas for Study* Researchers can explore the safety and appropriateness of APRN prescription of controlled substances, such as opioids.

B) Facilitate the generation of knowledge to assist states in adopting and enacting the enhanced nurse licensure compact (eNLC).

The enhanced Nurse Licensure Compact (eNLC) is a regulatory solution to the growing demand for borderless health care delivery. This project is a major initiative for NCSBN. Given the investment in terms of staff time and resources, it is important to measure outcomes, especially in the implementation phase of the project. Data collected can then be used to enhance legislative and implementation strategies of the future.

   1) *Ongoing Projects*

       a) NCSBN Research

         (i) Evaluating the Effectiveness of the Enhanced Nurse Licensure Compact Information Campaign
Cross-sectional assessment of the eNLC information campaign and its effectiveness in reaching nurses, employers, and educators in states that have enacted the eNLC; it will also measure the extent of trans-jurisdictional practices by nurses, employer, and educators in all states that have enacted the eNLC.

   2) *Additional Areas for Study*

Economic advantages of the NLC for both individual nurses, medical facilities as well as larger industries such as insurance companies. Issues for future research may include assessing whether the NLC improves access to care for patients in shortage areas or states that experience seasonal changes in population growth and whether states in the NLC are better able to meet RN demand as compared to non-NLC states. Also of interest is whether the NLC enhances the ability to recruit and deploy nurses during a disaster.