

Envisioning the Optimal Interprofessional Clinical Learning Environment:

INITIAL FINDINGS FROM AN
OCTOBER 2017 NCICLE SYMPOSIUM

© 2018 National Collaborative for Improving the Clinical Learning Environment. *Envisioning the Optimal Interprofessional Clinical Learning Environment: Initial Findings From an October 2017 NCICLE Symposium* is made available under the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.



ISBN: 978-1-945365-20-1

Suggested citation: Hawkins R, Silvester JA, Passiment M, Riordan L, Weiss KB for the National Collaborative for Improving the Clinical Learning Environment IP-CLE Planning Group. *Envisioning the Optimal Interprofessional Clinical Learning Environment: Initial Findings From an October 2017 NCICLE Symposium*. <http://ncicle.org>. Published January 12, 2018.

BACKGROUND

Caring for the US patient population is becoming increasingly complex for health care providers. This complexity demands teamwork, problem solving, and innovative thinking by today's health care workforce. Such a workforce can be shaped by clinical learning environments committed to enhanced interprofessional learning.

Efforts to advance interdisciplinary and interprofessional education are well established.¹ In health care, these concepts have evolved over time, influenced by the evolution of the practice of health care. The impetus to reexamine and engage in interprofessional education and practice was the focus of the Institute of Medicine's reports *To Err Is Human: Building a Safer Health System* and *Crossing the Quality Chasm*.^{2,3} These reports were followed by several other studies⁴⁻⁶ noting that interprofessional practice leads to better patient health outcomes.

In 2016, the Accreditation Council for Graduate Medical Education's Clinical Learning Environment Review Program identified interprofessional learning, teamwork, and collaborative practice as areas for future exploration.⁷ The health professions community has responded by expanding the breadth and scope of team-based care models and incorporating explicit interprofessional education into their curricula. For example, research has noted that while nursing students and residents may be taught the importance of working together with other health care professionals, they often experience a professional hierarchy when they begin clinical training.^{8,9}

With a desire to better understand the issues related to improving the interprofessional clinical learning environment (IP-CLE), the National Collaborative for Improving the Clinical Learning Environment (NCICLE) hosted a symposium to solicit input from a broad range of stakeholders. Through this symposium, which was sponsored by the Accreditation Council for Graduate Medical Education and the Josiah Macy Jr. Foundation, NCICLE leadership sought to identify key characteristics of an optimal IP-CLE. The symposium sought to build on the success of efforts related to interprofessional education and interprofessional collaborative learning in conveying the value of teamwork in patient care. The specific focus of the symposium was on the role of health care environments such as health systems, academic medical centers, and interprofessional stakeholders in providing a clinical learning experience that enhances interprofessional practice and learning in all services of patient care.

INTRODUCTION

The National Collaborative for Improving the Clinical Learning Environment (NCICLE) is a forum for organizations committed to improving the educational experience and patient care outcomes within clinical learning environments. It seeks to simultaneously improve the quality of learning and patient care within clinical learning environments through shared learning and collaborative practice among its member organizations.

On October 13 and 14, 2017, NCICLE hosted a symposium on the IP-CLE to facilitate a national conversation on how clinical care environments can ensure that clinical learners embrace interprofessional collaborative practice and learning throughout their careers. The symposium was designed to solicit input from a broad range of stakeholders in the clinical learning environment. Symposium participants included content experts who were nominated by NCICLE members, the NCICLE IP-CLE symposium planning group, and the National Center for Interprofessional Practice and Education.

This is about the desire to have a new interprofessional approach to clinical learning environments.

— Peter Angood, MD, Chair, NCICLE Steering Committee

The primary goal of the symposium was to describe characteristics of an optimal IP-CLE. To achieve this goal, the symposium was structured to be dynamic and collaborative, beginning with a “gallery walk,” during which participants were asked to review and reflect upon a gallery of posters highlighting current issues relevant to health care. Topics included in the gallery ranged from climate change to medical tourism to big data. The exercise was designed to set context for the symposium: health is a part of our everyday lives, and the delivery of health care demands a big-picture approach.

Participants were then asked to describe why an optimal IP-CLE is beneficial and to consider how characteristics of an optimal IP-CLE exhibit themselves at the (1) micro (ie, clinical service units), (2) meso (ie, hospitals and clinics), and (3) macro (ie, the larger health system) levels. Subsequent discussions focused on IP-CLE characteristics that are a function of executive leadership and governance, ways that external entities might view IP-CLEs, and key milestones necessary for achieving an optimal IP-CLE.

This document contains selected initial findings from the symposium. These findings are not designed to provide consensus or recommendations regarding IP-CLE development. Rather, it is the NCICLE Steering Committee's vision that these findings will serve as a springboard for energizing and aligning other national efforts in this area—toward the goal of improving the educational experience while optimizing patient care. A more comprehensive report of findings will be published in 2018.

INITIAL SELECTED FINDINGS

Early in the symposium, participants identified how an enhanced IP-CLE can be valuable for patients, learners, academic centers, and hospitals and health systems (*Figure*). In the discussions that followed, several key themes emerged relating to (1) characteristics exhibited by an optimal IP-CLE and (2) the role of leadership and governance in shaping those characteristics. These themes are presented in the following sections.

FIGURE: THE VALUE OF AN ENHANCED IP-CLE FOR PATIENTS, LEARNERS, ACADEMIC CENTERS, AND HOSPITALS AND HEALTH SYSTEMS

PATIENTS

- Improve patient safety and health care outcomes
- Improve patient satisfaction
- Create a more effective and efficient care experience
- Facilitate communication, including trust and respect
- Ensure that the patient and family are part of the team
- Improve access to care
- Ensure continuity and coordination of care in all care settings

HOSPITALS AND HEALTH SYSTEMS

- Enhance ability to attract and retain top talent
- Foster an interprofessional faculty
- Improve ability to improve efficiency and lower costs
- Better support efforts to improve wellness and resiliency of the workforce
- Improve ability to build a cohesive workforce and eliminate fragmented care

LEARNERS

- Better expose patients to the skills and uniqueness of various members of the health care team
- Enhance learners' understanding of the scope of practice of each of their patient's caregivers
- Improve communication with the clinical team and the patient about various aspects of the patient's care
- Reduce workforce burnout
- Improve shared goalsetting with the patient
- Improve effective role modeling and feedback
- Enhance learners' involvement with health care quality improvement activities
- Prepare learners to engage in safe and effective interprofessional collaborative care

ACADEMIC CENTERS

- Improve ability to train workforce in optimal care models, translating knowledge to improved practice of patient care
- Foster an engaged workforce
- Improve faculty development
- Improve ability to streamline clinical operations
- Improve ability to deliver the highest quality care
- Improve the academic center's reputation in contributing to enhanced health system performance and patient outcomes

Characterizing a High-Functioning IP-CLE

The following selected characteristics were identified by symposium participants through various group activities. These activities were not designed to create specific recommendations. Rather, they were meant to solicit input from the diverse group of participants to create a national conversation about enhancing the IP-CLE.

PATIENT CENTEREDNESS

Throughout the symposium, participants agreed that institutions with a true IP-CLE consistently place the patient at the center of every aspect of health care delivery. High-functioning IP-CLEs successfully do this by viewing health care as being cocreated—not delivered—with the patient, as well as his or her family and community, as an integral part of the health care team. As a member of the health care team, the patient is empowered to actively engage in his or her health. Participants noted that, when patients see their various providers working together as a team, they gain a better understanding of each provider's role as well as gain confidence in their health care plan. They are able to see firsthand how effective team-based care can close gaps in care and improve efficiency, safety, and outcomes.

CONTINUUM OF LEARNING

Everyone in the clinical environment—not just students and new clinicians—is a learner. According to the symposium participants, institutions with high-functioning IP-CLEs foster learning throughout one's career, ensuring that interprofessional values are integrated and reinforced in the clinical workflow as well as in undergraduate and graduate education. For example, participants noted that institutions may embed interprofessional learning in all key health care activities. This continuum of learning creates opportunity for moving from competitive to collaborative environments and from individual to collective competence among health care professionals.

Every team member is accountable for the end result.

— Kathryn Rugen, PhD, FNP-BC, FAAN, FAANP, National Nurse Practitioner Consultant, Veterans Health Administration

RELIABLE COMMUNICATIONS

Participants noted that IP-CLEs can ensure that care plans are rich, collaborative, continuous, and truly focused on the patient by carving out physical and mental space for teams to effectively and actively communicate. By valuing high-quality communication, leadership fosters healthy and productive relationships between various team members as well as between various levels and departments of the organization. It was often noted that high-functioning IP-CLEs anticipate conflict and miscommunication and proactively address them through training and strategies for conflict resolution and effective communication (eg, narrative medicine). Respect and trust are established when all team members have a sense of psychological safety; team members should not be afraid to ask questions or to provide feedback.

TEAM-BASED CARE

Symposium participants largely agreed that interprofessionalism is ingrained in an institution's culture when the institution embraces value-based care delivery and takes a top-down and bottom-up approach to instilling interprofessionalism into all aspects of patient care. An interprofessional culture rewards risk taking and innovation and fosters leadership skills at all levels, all while embracing team interdependence, shared decision making, and collective competence. Participants indicated that successful IP-CLEs are designed to serve an institution's unique needs—what works for one institution may not work for another. Leaders of high-performing IP-CLEs learn through constructive dialogue and celebrate change.

Participants also noted that high-functioning IP-CLEs are supported by various structures that are team oriented. For example, institutions with flattened organizational structures enable teams from the bottom up to actively engage in system-wide problem solving and decision making. Leadership in IP-CLEs can also structure time around teams by ensuring that team members' schedules are compatible with one another and include protected time for communication, collaboration, and shared learning. Team-oriented physical structures identified by participants include workspaces and gathering places built to accommodate interprofessional teams, not just individuals or members of a single profession. In addition, payment structures that are value based, rather than fee-for-service, support collaborative care.

Being comfortable with conflict is part of change.

— Donna Thompson, RN, MS,
Chief Executive Officer,
Access Community
Health Network

SHARED ACCOUNTABILITY

According to symposium participants, institutions with high-functioning IP-CLEs have structures and processes in place to ensure accountability in interprofessionalism. For example, institutions may have an IP-CLE steering committee to keep the institution engaged in interprofessional efforts. Formal, scheduled assessments allow leadership to solicit feedback and institute improvements within an IP-CLE, which may include strong and rapid quality-improvement practices and dissemination of lessons learned. Experiential learning with measurable outcomes and clear competencies that inform desired behaviors was identified by participants as a way to ensure that interprofessionalism is instilled in learners. Participants also indicated that incentives for teamwork can keep learners engaged in interprofessionalism throughout their careers.

EVIDENCE-BASED PATIENT CARE BASED ON INTERPROFESSIONAL EXPERIENCE

Participants noted that high-functioning collaborative care exemplars already exist in our health care systems (eg, Hospice, intensive care units). By identifying key characteristics of these successful areas and engaging in research, health care leaders can begin to develop evidence-based IP-CLE models.

These IP-CLE characteristics denote a culture where learners experience how all members of the clinical and administrative team best serve their patients' care needs.

Defining the Role of Leadership and Governance in Enhancing the IP-CLE

Leadership and governance play a key role in ensuring an optimal IP-CLE. As noted in the previous section, participants indicated that high-functioning IP-CLEs exhibit characteristics that support patient centeredness, lifelong learning, highly reliable communication, teamwork, accountability, and evidence-based models. Using similar group activities, designed to solicit input—not to create specific recommendations—participants indicated that such IP-CLEs have leadership that engages in and ensures the following:

INTERPROFESSIONAL REPRESENTATION

Many of the symposium participants noted that organizations with high-functioning IP-CLEs ensure that all members of the interprofessional team have a “seat at the table” in leadership or governance roles. Institutions may achieve this interprofessional representation by having members of various professions, including nurses, social workers, pharmacists, and even members of the community, on its board and in other leadership positions.

ALIGNMENT OF ORGANIZATIONAL AND IP-CLE MISSIONS

According to the symposium’s participants, an important step in achieving a truly interprofessional culture is to align the organization’s values and strategic goals with those of the IP-CLE. When an IP-CLE is viewed as a strategic initiative that facilitates other initiatives, organizations can begin to develop structures that will drive optimal, high-functioning IP-CLEs.

LEADERSHIP BUY-IN

Finally, the participants indicated that high-functioning IP-CLEs have leadership buy-in. When leaders at all levels of the organization consistently message the necessity for interprofessional-based collaborative care, this concept is embraced from the bottom up. Leaders can further support IP-CLEs by endorsing its mission outside of the organization—uniting stakeholders, engaging in advocacy, and promoting the importance and worth of an IP-CLE are ways in which leadership can increase buy-in from the community and, ultimately, policy and law makers.

The interprofessional collaboration taking place here needs to be mirrored in the clinical learning environment.

— Shelby White, PharmD, PGY2
Pharmacy Resident, Veterans Health Administration

CONCLUSION

The NCICLE IP-CLE symposium generated rich, groundbreaking discussion on how to enhance the interprofessional nature of CLEs. As participants envisioned how IP-CLEs would take shape over the next 10 years, it became clear that policy, regulation, and reimbursement will all need to be engaged to advance work in IP-CLEs. However, as evidenced by the decades-long effort to improve patient safety,^{2,3} large-scale changes in health care do not happen overnight. Enhancing the IP-CLE will be a long journey that will require hard work and dedication involving many sectors of health care.

As previously stated, the intention of the NCICLE symposium was not to provide consensus or recommendations regarding IP-CLE development but rather to energize and align other national efforts in this area. In the next step of this initiative, NCICLE will be convening a work group to produce a document that will expand on these initial findings and identify opportunities for next steps in developing optimal IP-CLEs.

**To drive the change we want, we need the
humility to learn from everyone, recognizing
we rise and fall as a team.**

— Sandeep Krishnan, MD
Complex Coronary and Structural Heart Disease
Fellow, University of Washington

REFERENCES

1. Cox M, Naylor M. *Transforming Patient Care: Aligning Interprofessional Education with Clinical Practice Redesign*. New York, NY: 2013; Josiah Macy Jr. Foundation.
2. Institute of Medicine. *To Err Is Human: Building a Safer Health System*. Washington, DC: National Academies Press; 2000.
3. Institute of Medicine. *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington, DC: National Academies Press; 2001.
4. Reeves W, Lewn S, Espin S, Zwarenstein M. *Interprofessional Teamwork for Health and Social Care*. London, England: Wiley Blackwell; 2010.
5. World Health Organization. Framework for Action on Interprofessional Education and Collaborative Practice [WHO/HRH/HPN/10.3]. Geneva, Switzerland: WHO Press; 2010. http://apps.who.int/iris/bitstream/10665/70185/1/WHO_HRH_HP_N_10.3_eng.pdf. Accessed on March, 27, 2017.
6. Nielsen M, Olayiwola JM, Grundy P, Grumbach K. *The Patient-Centered Medical Home's Impact on Cost and Quality; An Annual Update of the Evidence, 2012-2013*. Washington, DC: Patient-Centered Primary Care Collaborative; 2014.
7. Wagner R, Weiss KB. Lessons learned and future directions: CLER National Report of Findings 2016. *J Grad Med Educ*. 2016;8(suppl 2):55-56.
8. Kashner TM, Hettler DL, Zeiss RA, et al. Has interprofessional education changed learning preferences? A national perspective. *Health Serv Res*. 2017;52(1):268-290.
9. US Department of Health and Human Services, Health Resources and Services Administration, National Advisory Council on Nurse Education and Practice. Incorporating interprofessional education and practice into nursing. Health Resources and Services Administration website. <https://www.hrsa.gov/advisorycommittees/bhpradvisory/nacnep/Reports/thirteenthreport.pdf>. Accessed on March 27, 2017.

ACKNOWLEDGMENTS

SPONSOR

Accreditation Council for Graduate
Medical Education (ACGME)

Josiah Macy Jr. Foundation

ADVISOR

National Center for Interprofessional Practice
and Education

COLLABORATORS

American Association of Physician Leadership

American Medical Association

Joint Accreditation for
Interprofessional Continuing Education

NCICLE IP-CLE PLANNING GROUP

Richard Hawkins, MD, Co-chair

Vice President, Medical Educations Outcomes
American Medical Association

**Janet A. Silvester, PharmD, MBA,
FASHP, Co-chair**

Vice President, Accreditation Services
American Society of Health-System
Pharmacists

Peter B. Angood, MD, FRCS(C), FACS, MCCM

President and Chief Executive Officer
American Association for Physician Leadership

Maren Batalden, MD, MPH

*Associate Chief Quality Officer, Associate
Director of Graduate Medical Education for
Quality and Safety, and Director of Medical
Management within the Accountable Care
Organization*
Cambridge Health Alliance

Tom Bush, DNP, FNP-BC, FAANP

*Associate Professor, Orthopaedic NP
Fellowship Director*
University of North Carolina at Chapel Hill
Schools of Nursing and Medicine

Laurinda Calongne, EdD

*Chief Academic Officer, Designated
Institutional Official*
Our Lady of the Lake Regional Medical Center

Kathy Chappell, PhD, RN, FNAP, FAAN

Senior Vice President
Accreditation, Certification, Measurement, and
Institute for Credentialing Research
American Nurses Credentialing Center

Mary Dolansky, PhD, RN, FAAN

Director
Quality and Safety Education for
Nurses Institute

Stuart C. Gilman, MD, MPH

*Director, Advanced Fellowships and
Professional Development*
Veterans Health Administration, Office of
Academic Affiliations

W. Robert Grabenkort, PA, MMSc, FCCM

*Director of NP/PA Residency in Critical
Care Medicine*
Emory Center for Critical Care

Kathryn Rugen, PhD, FNP-BC, FAANP, FAAN

National Nurse Practitioner Consultant
VA Centers of Excellence in Primary Care
Office of Academic Affiliations
U.S. Department of Veterans Affairs

Olivia Ojano Sheehan, PhD

*Senior Director, Clinical Learning
Environment Development*
*Assistant Professor, Department of
Family Medicine*
Ohio University
Heritage College of Osteopathic Medicine

Steve Singer, PhD

Vice President for Education and Outreach
Accreditation Council for Continuing Medical
Education

Dimitra V. Travlos, PharmD

*Assistant Executive Director, and
Director, CPE Provider Accreditation*
Accreditation Council for Pharmacy Education

Robin Wagner, RN, MHSA

*Vice President, Clinical Learning
Environment Review*
ACGME

Expert Advisor

Barbara Brandt, PhD

*Director, National Center for Interprofessional
Practice and Education*
*Associate Vice President for Education,
Academic Health Center, Education
Administrator*
University of Minnesota

NCICLE STEERING COMMITTEE MEMBERS (2017)

Peter B. Angood, MD, FRCS(C), FACS, MCCM, Chair
American Association for Physician Leadership

Jay Bhatt, DO
American Hospital Association

Kathy Chappell, PhD, RN, FAAN, FNAP
American Nurses Credentialing Center

Richard Hawkins, MD
American Medical Association

Heather Meissen, ACNP-BC, CCRN, FCCM
Association of Post Graduate APRN Programs

Janet A. Silvester, PharmD, MBA, FASHP
American Society of Health-System Pharmacists

Steve Singer, PhD
Accreditation Council for Continuing Medical Education

Kevin B. Weiss, MD
ACGME

Kristen Will, MHPE, PA-C
Association of Postgraduate PA Programs

NCICLE SUPPORT

ACGME

Patrick Guthrie
Assistant, Institutional Outreach and Collaboration

Joshua Mirôn, MA
Senior Program Administrator, Clinical Learning Environment Review

Morgan Passiment, MS
Director, Institutional Outreach and Collaboration

Laura Riordan
Medical Writer, Clinical Learning Environment Review

Robin Wagner, RN, MHSA
Vice President, Clinical Learning Environment Review

Kevin B. Weiss, MD
Senior Vice President, Institutional Accreditation

NCICLE MEMBER ORGANIZATIONS (2017)

Accreditation Council for Continuing Medical Education

Accreditation Council for Graduate Medical Education

Accreditation Council for Pharmacy Education

Alliance of Independent Academic Medical Centers

American Association for Physician Leadership

American Association of Colleges of Osteopathic Medicine

American Osteopathic Association

Association of Osteopathic Directors and Medical Educators

American Board of Medical Specialties

American Hospital Association

American Medical Association

American Nurses Credentialing Center

American Organization of Nurse Executives

American Society of Health-System Pharmacists

Association of American Medical Colleges

Association for Hospital Medical Education

Association for Nursing Professional Development

Association of Post Graduate APRN Programs

Association of Postgraduate Physician Assistant Programs

Council of Medical Specialty Societies

Health Resources and Services Administration

Institute for Healthcare Improvement/National Patient Safety Foundation

Institute for Safe Medication Practices

Liaison Committee on Medical Education

National Board of Medical Examiners

Organization of Program Director Associations

Quality and Safety Education for Nurses Initiative

The Joint Commission

Veterans Health Administration

Vizient, Inc.

SYMPOSIUM PARTICIPANTS

Hannah Alphas Jackson, MD, MHSA
Douglas Ander, MD
Barbara Anderson, MS
Peter Angood, MD
Christine Arenson, MD
Elisa Arespachoga, MBA
Vineet Arora, MD, MAPP
Frank Ascione, PharmD, MPH, PhD
Marianne Baernholdt, PhD, MPH, RN, FAAN
Jim Ballard, EdD, MS
Barbara Barnes, MD, MS
Barbara Barzansky, PhD, MHPE
Donald Brady, MD
Kristy Brandon, PT, DPT, OCS
Barbara Brandt, PhD
Timothy P. Brigham, MDiv, PhD
Tom Bush, DNP
Craig Campbell, MD
Tracy Cardin, ACNP-BC
Ronald Cervero, PhD
Malcolm Cox, MD
Mary Dolansky, RN, PhD
Joy Doll, OTD, OTR/L
Robert Dressler, MD, MBA
Catherine Eckart, MBA
David Farmer, PhD, MAMFC
Gail Furman, PhD, MSN
Jacob Gettig, PharmD, MPH, Med
Stuart Gilman, MD, MPH
Rob Grabenkort, MMSc, PA
Tom Granatir
David Gregory, PharmD, BCPS, FACHE
Patrick Guthrie
Keri Hager, PharmD
Leslie Hall, MD
Diane Hartmann, MD
Richard Hawkins, MD
Matthew Holderly, PharmD
Carmen Hooker Odom, MA
Keith Horvath, MD
Pamela Hsieh, PharmD
Sue Johnson, PhD, RN-BC, NE-BC
Areef Kassam, MD, MPA
Haruka Kelley, MS
Brian Kim, JD
Betsy Kimball, MA
Simon Kitto, PhD
Nancy Koh, PhD
Sandeep Krishnan, MD
Marshala Lee, MD, MPH
Rebecca Leitner, BA, MSW Student, MPH Student
Marilyn Luptak, PhD, MSW
Elizabeth McClain, PhD, EdS, MPH
George Mejicano, MD, MS
Joshua Mirôn, MA
Elizabeth Moore, MD
Carol Moore, MS
Jeffrey Morgan, DO, MA
Olivia Ojano Sheehan, PhD
Janis Orłowski, MD, MACP
Morgan Passiment, MS
Rupinder Penna, DO
Andrea Pfeifle, EdD, PT, FNAP
Ingrid Philibert, PhD, MBA
Maura Polansky, MS, MHPE, PA-C
Catherine Quintana, AGNP/DNP student
Carrie Radabaugh, MPP
Kate Regnier, MA, MBA
Laura Riordan
Kathryn Rugen, PhD, FNP-BC, FAAN, FAANP
Jessica Salt, MD, MBE
Tara Schapmire, PhD, MSSW
Frederick Schiavone, MD, FACEP
Joanne G. Schwartzberg, MD
Stephen Shannon, DO, MPH
Jean Shinnors, PhD, RN-BC
Rebecca Shunk, MD
Janet Silvester, PharmD, MBA, FASHP
David Sklar, MD
Sandra Snyder, DO
Janet Stifter, PHD, RN, CPHQ
Anna Strewler, AGNP-BC
James Swartwout, MA
Dennis Taylor, MEd, MBA, DNP, ACNP-BC
George Thibault, MD
Donna Thompson, RN, MS
Gerald Thrush, PhD
Dimitra Travlos, PharmD
Michelle Troseth, MSN, RN, FNAP, FAAN
Paul Uhlig, MD, MPA
Richard Vath, MAEd
Fran Vlasses, PhD, RN, NEA-BC, ANEF, FAAN
Peter Vlasses, PharmD, DSc (Hon)
Robin Wagner, RN, MHSA
Kevin Weiss, MD
Shelby White, PharmD
Harvey Wigdor, DDS, MS
Kristen Will, MHPE, PA-C
Edwin Zalneraitis, MD
Lisa Zerden, PhD, MSW
Meg Zomorodi, PhD, RN, CNL