

Rachel Cox Simms, PhD, DNP, RN, FNP-BC, RN
 School of Nursing
 MGH Institute of Health Professions
 36 1st Avenue
 Boston, MA 02129-4557
 rlcox@mghihp.edu

Education

Doctor of Philosophy, Health Professions Education, MGH Institute of Health Professions, Boston, MA	2026
	2023
Master of Science, Health Professions Education, MGH Institute of Health Professions, Boston, MA	
	2020
Doctor of Nursing Practice, University of Massachusetts Amherst, Amherst, MA	
	2015
Master of Science, Nursing, Boston College, Chestnut Hill, MA	
	2013
Bachelor of Science, Biology, Tufts University, Medford, MA	

Certificates and Licensure

Massachusetts RN/CNP	2015 -
Rhode Island RN	2020
ANCC – Board Certified Family Nurse Practitioner	2015 -

Academic Appointments

Assistant Professor, MGH Institute of Health Professions School of Nursing, Boston, MA	2020 -
--	--------

Clinical Appointments

Camp Nurse – Pawtucket Girls/Boys Club – Camp Ramsbottom, Rehoboth, MA	2025
Family Nurse Practitioner, Tristan Medical, Norton, MA	2016 - 2022
Family Nurse Practitioner, Minute Clinic, Seekonk, MA	2015 - 2016

Administrative Appointments

Clinical Director, Tristan Medical, Norton, MA	2020 - 2022
Clinical Operations Associate, Tristan Medical, Norton, MA	2019 – 2020

Honors and Awards

The Christine A. Tanner Scholarly Writing Award – Journal of Nursing Education	2024
Massachusetts Association of Colleges of Nursing (MACN) Innovation in Teaching Award	2024
SON Excellence in Teaching Award	2023

Updated: 2022

Alexandra Paul Simon Mentoring Award- Sigma	2023
Pillars of Excellence – Prelicensure Team Member Group Award	2022
Best in Care Award, Tristan Medical	2020
Sigma Theta Tau, Honor Society	2015
Gordon Family Fellowship	2015

Grants

Current/ Awarded –

SON Seed Grant

Validation of a tool for NCLEX-style Item Quality, PI: Rachel Cox Simms

Total: \$3,000 - 2025

Effort: PI 100%

Slavin Foundation

Outcomes of telehealth etiquette training, PI: Rachel Pittman

\$10,000 2024-2025

Effort: Co-Investigator

PhD Dissertation

Institute of Health Professions

Title: Validation and Application of the NCLEX-Style Exam Item Assessment (NEIA) Tool and Exploration of Nursing Faculty Use of Generative AI

- Study 1: Survey of Nursing Faculty Use of Generative AI
Role: Lead Researcher
Conduct a national survey of nursing faculty to explore their use and perceptions of generative AI in nursing education. Results will inform future implementation strategies for AI-driven educational tools.
- Study 2: Validation of the NEIA Tool
Role: Lead Researcher
Developed the NCLEX-style Exam Item Assessment (NEIA) tool for evaluating the quality of NCLEX-style questions used in nursing education. Currently validating the tool and conducting comprehensive data collection and analysis to ensure the tool's reliability.
- Study 3: Comparison of Human vs. ChatGPT Application of the NEIA Tool
Role: Lead Researcher
Examine the performance of human educators versus generative AI (ChatGPT) in applying the NEIA tool to assess NCLEX-style questions. Analyze comparative results to determine accuracy, consistency, and potential biases.

Publications

Peer Reviewed

- **Rachel Cox Simms**, Annie Fox (2025) Scripted Remedies: Leveraging AI and Pop Culture in Nursing Pharmacology Case Studies. *Journal of Nursing Education*. 2025;64(8):511-514. doi:10.3928/01484834-20250131-01
- **Rachel Cox Simms** (2025) Old Case, New Tricks: Transforming Antimicrobial Education for Disaster Preparedness. *Journal of Nursing Education*. 2025;64(4):255-257. doi:10.3928/01484834-20241122-04
- **Rachel Cox Simms (2025)** Generative artificial intelligence (AI) literacy in nursing education: A crucial call to action. *Nurse Education Today*. <https://doi.org/10.1016/j.nedt.2024.106544>
- Jean Bernhardt, Lisa Quinn, **Rachel Cox (2024)** The Heat-Related Illness Tool: A Case Study for Populations at Risk. *Nursing Economic\$ DOI: 10.62116/NEC.2024.42.2.59*
- **Rachel Cox Simms (2024)**. Preparing for the Next Pandemic: Perceptions of Prelicensure Nursing Student Competencies. *Journal of Nursing Education*. 2025;64(6):372-375. doi:10.3928/01484834-20241004-03
- **Rachel Cox Simms (2024)**. Work with ChatGPT, not against: 3 teaching strategies that harness the power of artificial intelligence. *Nurse Educ*. 2024;00(0):1-5. DOI:10.1097/NNE.0000000000001634
- **Rachel Cox Simms (2024)** Using ChatGPT for Tailored NCLEX Prep in Virtual Office Hours. *Nurse Educator*. DOI: 10.1097/NNE.000000000000161
- **Rachel Cox**, Karen Hunt, Rebecca Hill. (2023) Comparative Analysis of NCLEX Questions: A Duel Between ChatGPT and Human Expertise, *Journal of Nursing Education*, 2023;62(12):679–687 <https://doi-org.treadwell.idm.oclc.org/10.3928/01484834-20231006-07>
- Jean Bernhardt, Suellen Breakey, **Rachel Cox**, Oluwatonisin Olayinka, Lisa Quinn, Katherine Simmonds, Katherine Simmonds, Kathryn Atkin, Margaret H. Sipe and Patrice Nicholas. (2022) Development of a Tool for Assessment of Climate Change-Related Heat Illness in the Clinical Setting, *Journal of the American Academy of Nurse Practitioners*, 35(5) 2023, 291-298. [doi:DOI: 10.1097/JXX.0000000000000856](https://doi.org/10.1097/JXX.0000000000000856)
- **Rachel Cox**, Kaveri M. Roy and Samantha Bernstein. (2022) A Guide to Application of Diversity, Equity, and Inclusion (DEI) Principles for Prelicensure Nursing Education, *Journal of Professional Nursing*, 46 2023, 146-154. [doi:doi: 10.1016/j.profnurs.2023.03.002](https://doi.org/10.1016/j.profnurs.2023.03.002)

Editorial

- Barbara Resnick, Jean M. Bernhardt, Lisa Quinn, **Rachel Cox** (2023). The impact of rising ambient temperatures on older adults. *Geriatric Nursing*, 53(1) A1-A2, <https://doi.org/10.1016/j.gerinurse.2023.08.007>

Book Chapters

1. **Simms, R.C.**, Hunt, K., & Hill, R. (2026). Cutting edge exemplars and promising practices. In La Rosa, Fulbright, Sumpter, Carlisle, & Beard (Eds.), *Nursing education in the AI era: Practical guidance for educators to provide equitable care* (pp. XX-XX). New York, NY: Springer Nature.

2. **Simms, R.C** (2025). Contributed assessment questions for C. Braun & A. W. Roberts, *Pathopharmacology for nurses: An integrated approach* (1st ed.). Philadelphia, PA: Wolters Kluwer Health.

Online materials

1. **Cox, R.** (2022). Op-Ed: Monkeypox is going to college. Here's how to prevent a campus outbreak. *University Business*. Retrieved from <https://universitybusiness.com/monkeypox-is-going-to-college-heres-how-to-prevent-a-campus-outbreak/>
2. **Cox, R.** (2020). 'Things have been very tumultuous': A family nurse practitioner worries patients could go without care. *Boston.Com*. Retrieved from <https://www.boston.com/culture/health/2020/04/10/family-nurse-practitioner-coronavirus-pandemic>

IHP Media Appearances

1. **Cox, R.** (2022). **Interview with Carolyn Barrett.** Monkeypox: A Cause for Calculated Concern and Preparedness. *MGH IHP*. Retrieved from: <https://www.mghihp.edu/monkeypox-cause-calculated-concern-and-preparedness>
2. **Cox, R.** (2022). **Interview with Carolyn Barrett.** Expert: Colleges Must Prepare for Monkeypox Outbreak. *MGH IHP*. Retrieved from <https://www.mghihp.edu/expert-colleges-must-prepare-monkeypox-outbreaks>

Media Appearances

1. **Simms, R. C.** (2025, June 12). Beyond the hype: Practical applications of AI in nursing education. *NLN Nursing Edge Unscripted*.
2. **Simms, R. C.** (2025, April 9). Meeting the challenges of exam development with artificial intelligence [Interview]. *ATI Educator Blog*. Retrieved from <https://www.atitesting.com/educator/blog/knowledge/2025/04/09/meeting-the-challenges-of-exam-development-with-artificial-intelligence>
3. **Simms, R. C.** (2024, August 7). Using ChatGPT for tailored NCLEX prep in virtual office hours. *Nurse Educator Tips for Teaching*. Available on Apple Podcasts and Spotify.
3. **Simms, R. C.** (2024, March). Work with ChatGPT, not against: 3 teaching strategies that harness the power of artificial intelligence. *Nurse Educator Tips for Teaching*. Available on Apple Podcasts and Spotify.

4. **Cox, R.** (2022). **Interview by Michael Rosenfield.** Mass. Announces 36 More Monkeypox Cases; No Deaths From Illness Reported in US. *NBC10 Boston*. Retrieved from <https://www.nbcboston.com/news/local/mass-announces-36-more-monkeypox-cases-no-deaths-from-illness-reported-in-us/2792817/>
5. **Cox, R.** (2022). **Written Interview with Healthline:** 8 Common Questions About Monkeypox, Answered. *Healthline*. Retrieved from <https://www.healthline.com/health-news/8-common-questions-about-monkeypox-answered>
6. **Cox, R.** (2022). **Interview by Jim Morelli.** Is monkeypox the next infectious issue for college campuses? *Fox 25 Boston*. Retrieved from <https://www.boston25news.com/news/local/is-monkeypox-next-infectious-issue-college-campuses/VP5MEVWUU5FKDMJ7XBFSU7WD4M/>
7. **Cox, R.** (2022). **Interview by Akila Muthukumar.** As monkeypox spreads, university campuses prepare for another outbreak. *STAT*. Retrieved from <https://www.statnews.com/2022/08/09/monkeypox-spreads-university-campuses-prepare-for-another-outbreak/>
8. **Cox, R.** (2022). **Interview by Liam Knox.** Colleges Brace for a New Viral Threat: Monkeypox. *Inside Higher Ed*. Retrieved from https://www.insidehighered.com/news/2022/08/05/colleges-prepare-potential-monkeypox-outbreaks?utm_source=Inside+Higher+Ed&utm_campaign=4d5a3e49a0-DNU_2021_COPY_02&utm_medium=email&utm_term=0_1fcbc04421-4d5a3e49a0-237184349&mc_cid=4d5a3e49a0&mc_eid=caa252645a
9. **Cox, R.** (2022). **Interview by Michael Rosenfield.** Monkeypox Concerns on Campus: Colleges Offer Guidance and Protocols. *NBC10 Boston*. Retrieved from <https://www.nbcboston.com/news/local/monkeypox-colleges/2820768/>
10. **Cox, R.** (2022). **Interview by Kim Tunnicliffe.** Colleges Should Prepare For Monkeypox, Infectious Disease Expert Says. *WBZ*. Retrieved from <https://wbznewsradio.iheart.com/content/colleges-should-prepare-for-monkeypox-infectious-disease-expert-says/>
11. **Cox, R.** (2022). **Interview by Kirk Carapezza.** As alcohol home delivery persists, public health officials worry about substance abuse. *GBH News*. Retrieved from <https://www.wgbh.org/news/local-news/2022/06/07/as-alcohol-home-delivery-persists-public-health-officials-worry-about-substance-abuse>

Peer-Reviewed Presentations

National

- Simms RC** (2025) Podium Scripted Remedies: Enhancing Nursing Education with AI and Pop Culture. Abstract ID 25S-2982078854, NLN Orlando 2025
- Simms, R.C.** (2025). Poster. Empowering Educators: Building a Custom Companion GPT for Your Course. Abstract ID 25S-1243491528. 2025
- Simms, R.C.** (2025). Poster Generative AI Literacy for Nurse Educators: A Call to Action for Future-Ready Nurses. Abstract ID 25S-1580221142. 2025
- Simms RC** (2025) Podium: Comparative Analysis of NCLEX-RN Style Questions: AI and Human Expertise in Nursing Education. NLN NERC 2025
- Simms, RC** (2024) Poster. Leveraging ChatGPT for Enhanced NCLEX Question Development. NLN 2024
- Simms, RC** (2024) Poster. Climate Change and the Next Pandemic: Assessing Student Nurse Competencies. NLN 2024
- Cox, R, Roy, K** (2021) Podium: Incorporating Intersectionality in Nursing Education, AACN

Regional

- Simms R, Hunt K, Hill, R** - Eastern Nursing Research Society - **Exploring the Potential of ChatGPT in Nursing Education: A Comparative Analysis of Human and AI-Generated NCLEX Questions** 2023
- Katharine Robb, Rowana Ahmed, **Rachel Cox**, John Wong, Elissa Ladd and Jorrit de Jong (2023) "*Substandard housing and the risk of COVID-19 infection and disease severity in Chelsea, MA.*" Poster presented at the Chelsea Research Festival, Chelsea, MA 2023
- Patrice Nicholas, Suellen Breakey, Roksolana Starodub, Elaine Tagliareni, Margaret H. Sipe, Eleanor A. Pusey-Reid, Clara M. Gona, Lisa Quinn, **Rachel Cox**, Jean Bernhardt, Oluwatonisin Olayinka, John Wong, Kathryn Sabo, Patricia Reidy, Linda Evans, Robert Evans, Lisa O'Brien, Carla Donati, Valerie Grande, Tyler Leary and Steering Committee of the MGH Institute Center for Climate Change. (2023) Climate Justice, and Health, "*The National Institutes of Health (NIH) climate change initiative strategic framework.*" Poster presented at the MGH Nurse Research Day. 2022
- Cox R** (2022) Game-Based Learning, MGH Medical CNS Team Meeting
- Cox, R** (2022) Tech Jam 2: Game-Based Learning Platform, MGH IHP

Rachel Cox Simms, PhD, DNP, RN, FNP-BC

Roy, K, **Cox, R**,... et al. (2021) New Approaches to Office Hours Students Won't Want to Miss, MGH IHP 2020

Invited Lectures and Seminars

Simms, RC Innovate and Educate: AI Tools for Nurse Educators, MARILN, Worcester, MA – KEYNOTE SPEAKER 2024

2024

Simms, RC Generative Artificial Intelligence for Nurse Educators, Invited Lecture to MGH IHP School of Nursing

2024

Simms, RC ChatGPT in Health Professions Education, Invited Lecture to MGH IHP SHRS Leadership

2023

Cox, R, *Chronic Disorders of the Pulmonary System: COPD Smoking Cessation Tuberculosis*, Invited Lecture presented to the MGH IHP PC3

2023, 2024

Cox, R, *Asthma, Allergies, anaphylaxis*, Paper presented to the MGH IHP PC1

2022

Cox, R, *Pharmacologic Management: Common Acute and Chronic Respiratory Disorders*, Invited Lecture presented to the MGH IHP Pharmacology Symposium

2020

Cox, R. (2020) Contraception Education Module Intervention, UMass Amherst, Virtual

2019

Cox, R (2020) Cervical myelopathy: Identification and risk reduction in the primary care setting, Tristan Medical, Raynham, MA

Technology Development

Devices and software applications

ContraceptionCare.com – Contraception review site 2020

Courses taught

Pharmacology 1 2024-current

Pharmacology 2 2024-current

Mental Health Nursing – NS-504 2025-current

Adult and Population Health – NS-520 2025

Pharmacology – NS519, NS622 2021-2023

Nursing Practice: Process and Skills – NS510, NS660 2021-2024

Common Problems of Adult Health – NS520 2020

Clinical supervision

Preceptor, MGH IHP, 2 Students	2017 – 2018
Preceptor, Boston College, 4 Students	
Preceptor, Northeastern University, 1 Student	

Curriculum development

JEDI Workshop Development - Microaggressions	2021-
Standardized Intake, Blackboard Course, Tristan Medical	2018

Scholarship Activities

First Author - Institute of Health Professions On-Ramp Group: Antimicrobial Stewardship Pilot Program	2022-2023
Institute of Health Professions On-Ramp Group: Phase 2: Application of Screening Tool for Climate Change-Related Heat Illness for Older Adult Patients	2022-2023
Institute of Health Professions On-Ramp Group: Development of a Screening Tool for Climate Change-Related Heat Illness in the Clinical Setting	2021-2022
Institute of Health Professions On-Ramp Group: Phase 2: Characteristics of the Patient Population at a Covid-19 Non-Congregate Shelter	2022-2023
Institute of Health Professions On-Ramp Group: Characteristics of the Patient Population at a Covid-19 Non-Congregate Shelter: An Analysis of Socioeconomic, Housing, and Health Risk Factors	2020 - 2022

Mentoring Students

Thong Tan, Scholarly Project Reader	2024
Madison Levine, Scholarly Project Reader	2024
Grace Goyette , Scholarly Project Reader	2024
Courtney Martin, Scholarly Project Reader	2024
Shelby Casper, Scholarly Project Reader	2024
Giovana Vivaldi-Cohelo , Scholarly Project Reader	2024
	2021
Sarah Noble, MGH IHP, DEN, Preceptor, Scholarly Project Reader	2021
Michael Hitchner, MGH IHP, DEN, Preceptor	
Kelsey Murphy, Tristan Medical New Provider Program, Mentor	2019 - 2020
Michelle Kuhn, Boston College, FNP Track, Preceptor	2019 - 2020
Jessie Allen, Boston College, FNP Track, Preceptor	2018 - 2019
Christine Ash, Northeastern University, FNP Track, Preceptor	2017 - 2018
David Palmer, Boston College, FNP Track, Preceptor	2017 - 2018
Alexandra May, Boston College, FNP Track, Preceptor	2017

Clinical Innovations and Quality Improvement Projects

<i>Pandemic Preparedness Project and COVID-19 Testing Site</i> – Tristan Medical. Designed the policies and procedures for the pandemic preparedness and response team and established our COVID-19 testing site.	2020
<i>Contraceptive Education Module</i> , Tristan Medical - Designed an online screening and education module to improve contraceptive related behaviors and knowledge about contraception. Evaluate pre-test/post-test data and saw a statistically significant increase in both measured outcomes.	2019 - 2020
<i>New Provider Training Program</i> , Tristan Medical- Designed Tristan Medical's first standardized training program for new graduate primary care providers. The program consisted of 6 weeks of training, journal assignments, and interprofessional collaboration.	2019 -
<i>Skills and Grill</i> , Tristan Medical – Created the first annual full day clinical training and socialization event for all Tristan Medical locations. Designed hands-on training and skills evaluation as well as didactic lectures.	2019 -
<i>Intake Standardization Project</i> , Tristan Medical – Created a Blackboard based course for staff members to improve clinical consistency, increase knowledge, and effectively evaluate clinical knowledge. Evaluated by examining pre-test/post-test scores	2018 - 2019

<i>Social History Standardization</i> – Implemented quality improvement project to improve and standardize the social history forms.	2017
Professional Memberships and Activities	
Member, National League for Nurses (NLN)	2024
Member, American Nurses Association (ANA)	2020
Member, Massachusetts Coalition of Nurse Practitioners (MCNP)	2020
Sigma Theta Tau – Delegate	2021-
Institutional Service	
SoTL Community of Practice- AI in Health Professions Edu. – Co-Leader	2025-
Strategic Plan – Technology and Data Team Member	2024-
Admissions Committee – Co-chair	2024-
Senate - Faculty Governance & Academic Policy Committee	2024
Policy Committee – Chair	2022-
ATI Taskforce	2022-2022
JEDI Curriculum Taskforce	2022-2023
Appeals Committee	2022, 2025
Faculty Development Committee	2021
Curriculum Committee	2021
Co-Chair SEA Workshops Committee. JEDI Program	2021
Professional Service	2023-
<i>FNAMA Scholarship Committee</i> . Serving on the scholarship committee of the ANA of Mass	2022-
<i>Massachusetts Consortium on Pathogen Readiness</i> .	2020-
Chief, Pandemic Preparedness Team, Tristan Medical	
Co-Chief, Policy and Procedure Implementation Team, Tristan Medical	2018-
Community Service	
Pawtucket Boys and Girls Club – Camp Ramsbottom	2025
Coordinator of COVID Vaccine Clinic at Substance Use Treatment Facility	2021

Rachel Cox Simms, PhD, DNP, RN, FNP-BC

Leader of Volunteer COVID vaccine clinic for front-line workers.	2021
Tufts Admissions Network Interviewer	2016-2017
STEAM Night – Easton Public Schools	2016
Boston College Flu Clinics	2013