

NURSING RESEARCH: CLINICAL ACADEMIC PARTNERSHIPS

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Baystate Health | ADVANCING CARE. ENHANCING LIVES.

Objectives

- Discuss the mission and vision of the Nursing Research Program at Baystate Health.
- Describe the importance of clinical academic partnerships in advancing nursing science.
- Describe the three main foci of the Nursing Research Program at Baystate Health.



BAYSTATE HEALTH NURSING RESEARCH PROGRAM

Our mission is to enhance patient health and well-being while improving the nursing work environment.

- Partner with nurses at all levels of education and across all clinical areas to integrate evidence-based practice into bedside care.
- Engage nurses in leading quality improvement initiatives and driving nurse-led innovation.
- Empower nurses to incorporate holistic nursing practices and promote research into complementary treatment modalities.
- Advance research in understanding nursing work and improving nurses' work environment.

Nursing Research Team







- **Cidalia Vital, PhD, RN, CNL, AHN-BC – Director**
  - Research focuses on healthcare quality and safety, including human and environmental factors that impact care.

- **Karen Giuliano, PhD, RN, MBA, FAAN – Nurse Scientist**
  - Research approach based in human-centered design to guide projects in product innovation and nurse-led interdisciplinary healthcare innovation.

- **Cynthia Peterson, PhD, RN, NE-BC, CCRN-K – Nurse Scientist**
  - Focused on developing wellness and resilience in nurses, research focuses on implementing holistic nursing practice and improving nurse wellbeing.

Nursing Research Team



- **Sarah Romain, PhD – Nurse Scientist**
  - Research focuses on clinical nursing ethics support, supporting IV infusion pump research and other current nursing research initiatives



- **Connie Blake, EdD, MSN, RNC-OB, HNB-BC – Holistic Nurse, Practice Specialist**
  - Supports holistic nursing initiatives, evaluating the effects of aromatherapy on pain and anxiety and gentle touch on end-of-life care



- **Ellen Benjamin, PhD, RN, CEN- Nurse Scientist**
  - Research focuses on the cognitive and organizational work of nurses, including emergency patient flow management.

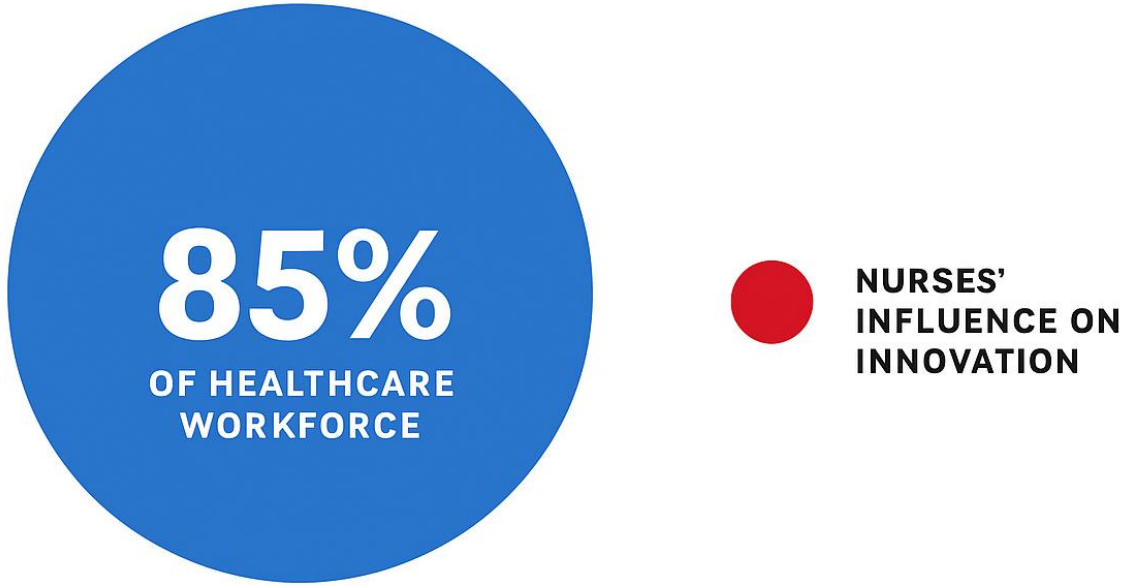
WHY QUESTIONS FROM THE FRONTLINES OF CARE ARE THE FUEL OF HEALTHCARE INNOVATION

As the nation's largest group of health care professionals, nurses use more products and services than any other professional in every conceivable setting where healthcare is delivered.

Nurses are in a unique position to identify and address everyday health care issues, challenge assumptions and the status quo, and ensure that outcomes research serves as the foundation for validating the effectiveness of new ways to provide healthcare



NURSES MAKE UP 85% OF HEALTHCARE WORKFORCE, BUT HAVE RELATIVELY SMALL INFLUENCE ON INNOVATION



Together, we are already changing that...

TRANSLATING EVIDENCE INTO PRACTICE—PERSISTENT CHALLENGES

- Healthcare organizations continue to face delays and barriers in translating research into clinical practice
- Common obstacles to nurse engagement in EBP, QI, and research:
  - Limited time
  - Insufficient financial support
  - Gaps in knowledge
  - Lack of confidence

- These barriers hinder the uptake of innovation and evidence-based care



Crawford et al., 2023; Halm, 2026; Melnyk, 2025; Melnyk et al., 2018

LOST OPPORTUNITIES FOR REAL-WORLD INNOVATION

- Nurses witness firsthand where systems break down. When their insights aren't captured, problems go unsolved and innovation stagnates.
- Nurse-led ideas often focus on simple, high-impact solutions that improve care efficiency and safety.



Strategies to Advance Nursing Innovation and Inquiry

- Key strategies to overcome barriers:
  - Build EBP, QI & Research competence and mentorship
  - Foster a culture of inquiry and innovation
  - Provide protected time and dedicated resources
- These approaches:
  - Empower frontline staff
  - Transform curiosity into actionable change
  - Enable scalable improvements in nursing practice

(Melnyk & Raderstorf, 2024; O'Hara et al., 2025)

Academic–Practice Partnerships as a Catalyst

- Academic–practice partnerships strengthen EBP infrastructure in large healthcare systems
  - Integrate PhD-prepared nurse researchers into clinical environments
  - Enhance access to research expertise and resources
- Structured research fellowships within these partnerships:
  - Cultivate a culture of inquiry
  - Build research capacity among frontline nurses
  - Support professional growth and career advancement
- Hospital-based nurse scientist roles:
  - Drive clinical innovation
  - Promote an organization-wide culture of evidence-based practice

(Majumdar et al., in press; Wentland & Hinderer, 2020)

Academic-Clinical Practice Partnership



- The collaboration between the Elaine Marieb Center for Nursing and Engineering Innovation and Baystate Health (BH) is important for improving patient care
  - supports bi-directional healthcare innovation from UMass laboratories to the point of patient care at Baystate, and from BMC back to UMass.
- To create an ***interdisciplinary and collaborative*** environment for frontline nurses to work closely with healthcare engineers.
- To develop and thrive as clinicians, researchers, experts in implementation science, and leaders in healthcare innovation.
- Our collaboration enables us to bring improvements to the front lines of care as quickly as possible, and make sure that frontline staff are an integral part of the process

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BETTER TOGETHER: BAYSTATE HEALTH & THE ELAINE MARIEB CENTER



Baystate Health and the **Elaine Marieb Center for Nursing and Engineering Innovation** unite their missions to advance healthcare through compassion, quality, and innovation.



Baystate Health's commitment to improving the health of its communities with excellence and empathy aligns seamlessly with the Elaine Marieb Center's nurse–engineer model, which bridges clinical insight with technical expertise to co-design solutions that enhance safety, efficiency, and patient outcomes.



This academic–practice partnership leverages the strengths of both organizations to create a powerful, collaborative approach to transform care delivery and prepares the next generation of healthcare innovation leaders.

OUR APPROACH

We have developed a robust, interdisciplinary and collaborative model for supporting the implementation and further development of nursing science and user-driven healthcare innovation in an acute care setting.

We are actively engaged in interdisciplinary, collaborative projects

- Implementation science
- Nurse-led original research
- Medical product and service innovation
- Support for dissemination through presentations and publications
- Mentored opportunities for frontline nursing staff.
- Development of clinical innovation unit

Chest Tube Drainage Holder to Support Patient Mobility







ART OF QUESTIONING AND INNOVATION

















OUTCOMES FROM THE ART OF QUESTIONING & INNOVATION

Participation and Outcomes of the AoQI Program

Year	Program Phase	Participants	Clinical Questions Submitted	Posters Generated	Advanced to EBP / QI / Research Projects	Conversion (%)
2014	Art of Questioning & Innovation	121	79	39	—	49%
2015	Art of Questioning & Innovation	175	85	59	—	69%
2016	Art of Answering	66	34	20	11	59%
2023	Art of Questioning & Innovation	61	38	29	14	76%
2025	Art of Questioning & Innovation	78	32	27	19	84%

Note. Values represent counts of clinical questions, posters, and projects advanced to research, EBP, or QI. Conversion (%) represents the proportion of clinical questions that advanced to these outcomes. In 2016, the program temporarily shifted focus from question submission to advancement of completed or near-completed projects ("Art of Answering"), resulting in differences in participation and submission metrics compared to other years.

Vital, C. J., Naglieri-Prescod, D. A., Gunn. B., Patrick, K., & Benjamin, E. (Under Review). The Role of Nursing Inquiry in Driving Innovation. Advancing Medical Surgical Nursing Journal

GROWTH OF THE BH NURSING RESEARCH PROGRAM



Partnership with UMASS on $3 Million SHINE Program to advance patient safety and medical innovation



Baystate Nursing Research Program awarded the UMass Amherst 2025 Distinguished Community Partner Award



16 Active Research Studies

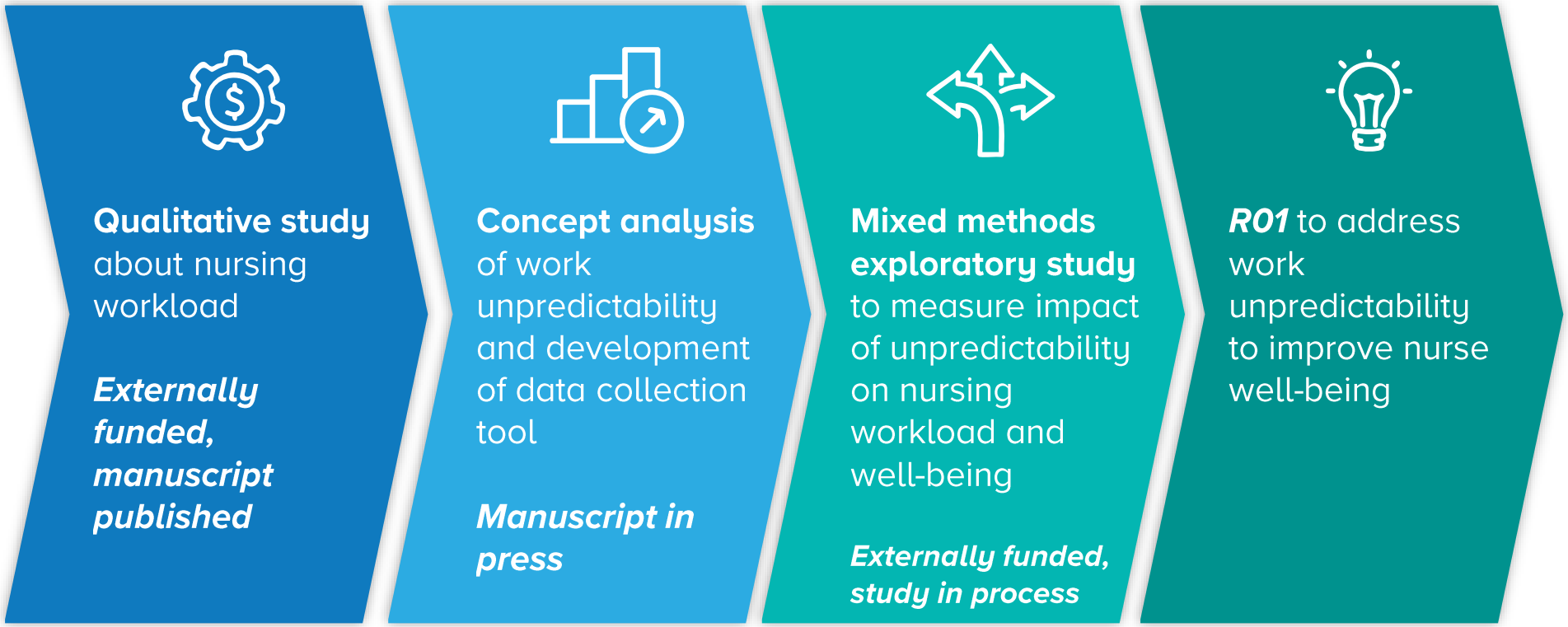


Over $150,000 in grant funding



Over 54 publications, presentations and posters externally disseminated in 2025

UNPREDICTABILITY AS A JOB STRESSOR IN NURSING WORK



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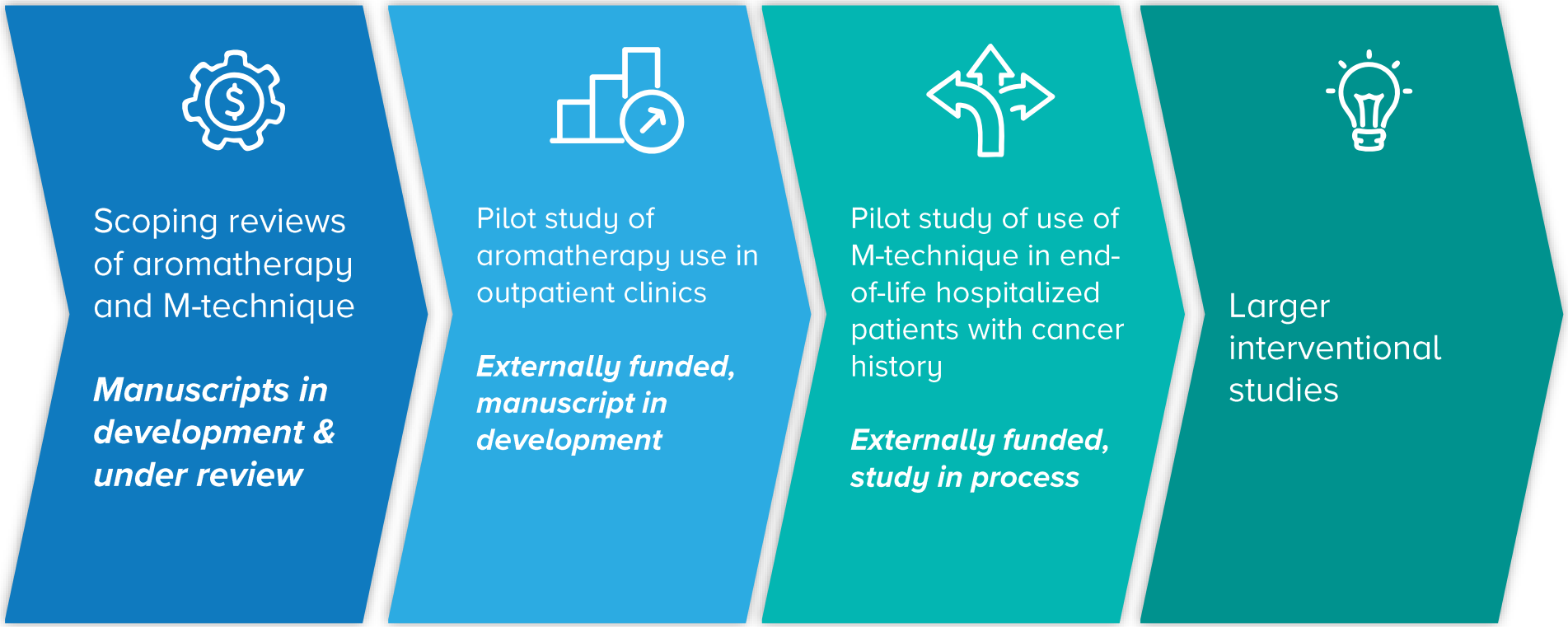
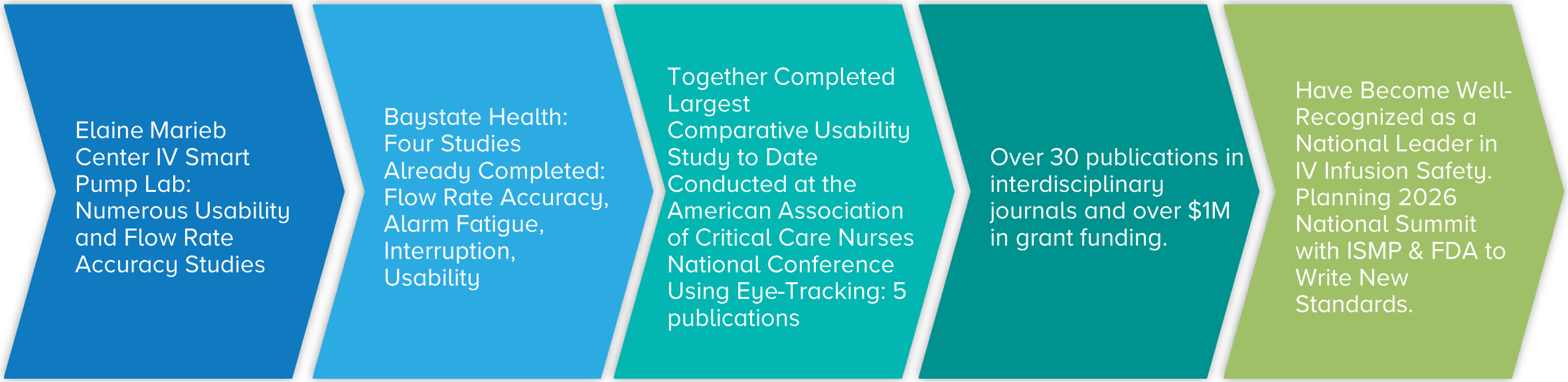
A MEASURE OF EMERGENCY PATIENT-LEVEL PERCEIVED WORKLOAD



HOLISTIC NURSING PRACTICE



IV SMART PUMP & INNOVATION: IMPROVING THE SAFETY & USABILITY OF IV SMART PUMPS



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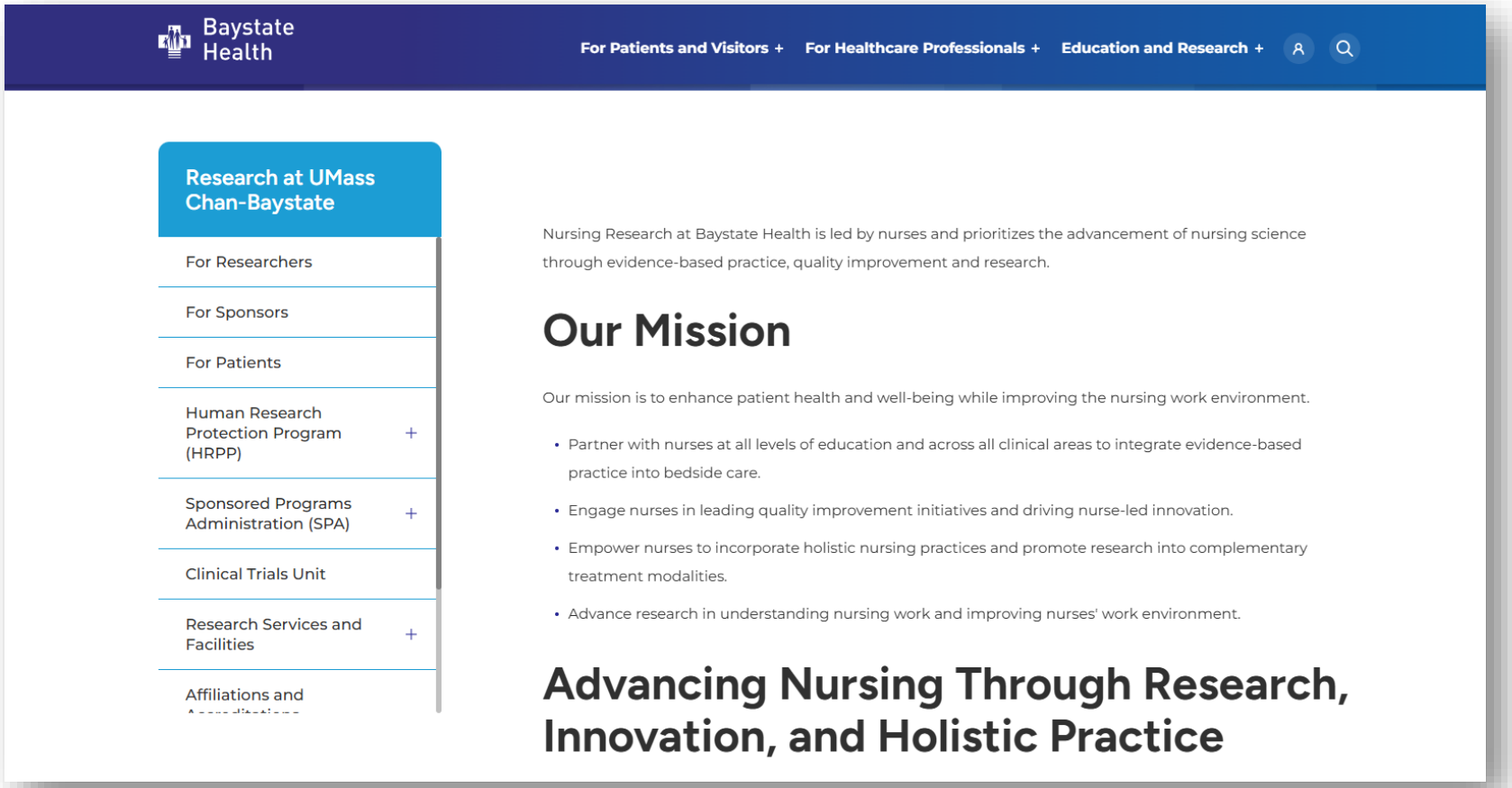
Webpage

- Nursing Research at Baystate Health



Introducing SHINE

Strengthening Healthcare Innovation through Nursing and Engineering

- $3M NSF-funded first-of-its-kind graduate training program linking nursing with engineering
- Funding for 10 PhDs per year, 50/50 Nursing and Engineering
- Training to understand clinical workflows, patient needs, and technology design
- Supports our partnership between the Marieb Center and Baystate
- A structured pipeline of trainees who can work directly with Baystate clinical teams



SHINE Strengthening Healthcare Innovation through Nursing and Engineering
The Elaine Marieb Center at UMass Amherst

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Thank you very much for your time!

Questions?

