

Simulation for Equity:

Strengthening Massachusetts School Nurses' Capacity to Support Students with Medical Complexity and Special Health Care Needs



**School Nurse Summer
Institute**

July 29, 2026



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Strategy Development

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(SHIELD)**

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**Presenters Have No
Relevant Financial
Disclosures**



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Consultation Program

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School Nursing Practice Framework™

Supporting Students to be Healthy, Safe and Ready to Learn



**This project
integrates all
elements and
Principles of the
Framework and
Standards of
Practice**

Source: National Association of School Nurses. (2024). A contemporary framework update for today's school nursing landscape: Introducing the School Nursing Practice Framework. *NASN School Nurse*, 39(3), 140-147.
<https://www.doi.org/10.1177/1942602X241241092>

Background

- Identified need for professional development (PD), training, and resources through outreach and workforce surveys
- School nursing shortages, staff turnover, and reliance on per diem staff for health office coverage and field trips
- District PD for school nurses often overlooked, not adequate, or not provided
- General increase in medical complexity with student populations
- Updates in MA Medication Administration in Schools Regulations
- Use of simulation as an effective means of education and professional development in other settings

Brief History

- 2020 MA Regional School Nurse Consultation Program (RC) is Supported by the Comprehensive School Health Services (CSHS) Grant Funding from the Massachusetts DPH
- 2021 DPH Received CDC Workforce Funds Granted to States
- DPH Aimed to Distribute Funds ASAP
- 2021 DPH Added to RC Scope of Service and Existing Contracts
- Each of the 6 EOHHS Regions Received Approximately \$31,000 over 2 years
- Funds Used to Create School Nurse Training Program and the Simulation Equipment Loaner Program (SELP)

RC Scope of Service Update

In FY22, Workforce Investment Funding Project is to be implemented. This project will involve partnering with BU SHIELD and the MASSTART program to develop and provide supplementary regional hands-on training for state-mandated screenings as well as complex care skills. This may include partnerships with local higher education and health care partners for simulation experiences. These partnerships may also lead to the creation of education-to-workforce pipelines and opportunities for nursing students to experience school nursing during their clinical rotations. Additional funding will be available for the 21/22 and 22/23 fiscal years for purchase of equipment and supplies to achieve this goal.



School Health Services



**MASSACHUSETTS SCHOOL NURSE
CONSULTATION PROGRAM**



SHIELD

School Health Institute
for Education and Leadership Development

MASSTART

**Massachusetts
Technology Assistance Resource Team**

A Free Program Providing Services for
Children with Special Health Care Needs and
Who May Be Assisted by Medical
Technology in the School Setting

Children with Medical Complexity School Health Resources & Education (CMC-SHARE) Project



- Families who have children with complex health issues and/or are assisted by medical technology, or have chronic illness.
- Health care providers
- School personnel
- Early intervention providers
- Community agencies



SHIELD

School Health Institute for Education and Leadership Development

Three-part Podcast Series



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Special Health Care Needs (SHCN) Library



This website acts as a “one-stop shop” for school nurses searching for **free, curated resources** to support nursing care and coordination for students with special health care needs.

Our learning library includes articles, videos, podcasts, and courses that address a diverse range of topics and medical conditions.



Visit the website: sites.bu.edu/shield/shcn



FREE Resources for the busy School Nurse!

Select your category from the color wheel or the listing below.



[Resources | Chobanian & Avedisian School of Medicine/CCE](#)

Events and Programs Development

- **May 2024**
 - Six Regional “Showcase” Meetings
- **May 2025**
 - Six Regional Meetings - Diabetes Emergency Simulation
- **June 2025**
 - Northeast Region hosted Simulation Workshop
 - Respiratory Emergency - Trach
- **May 2026**
 - Six Regional Meetings - Seizure Emergency Simulation

May 2024 Showcase



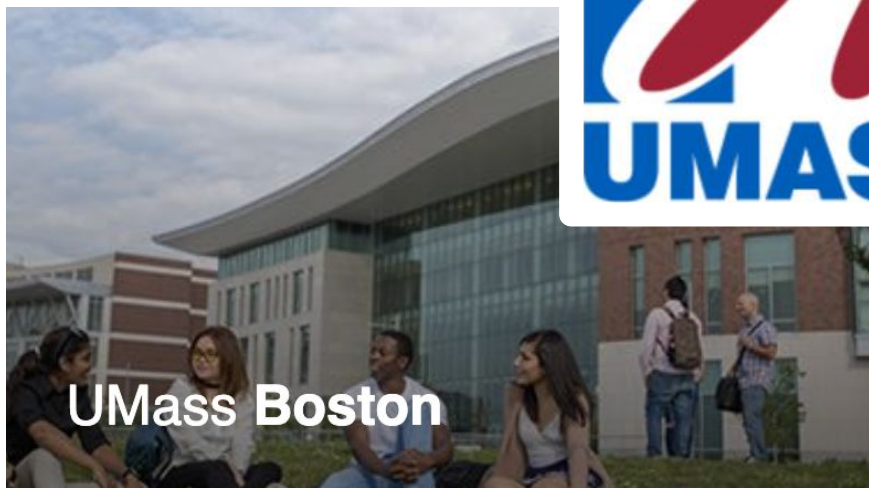
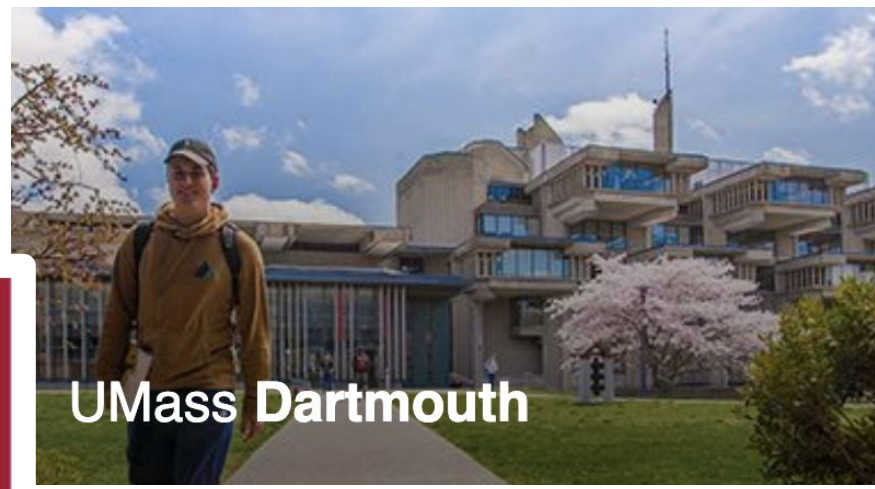


Task Training vs. True Simulation



- Focus on developing psychomotor skills
- Environment void of realism
- Led by expert clinicians

- Focus on developing clinical judgement
- Learners are immersed in scenarios
- Led by experts in simulation



Simulation Standards of Best Practice



INTERNATIONAL NURSING ASSOCIATION
for CLINICAL SIMULATION and LEARNING

The Healthcare Simulation Standards of Best Practice® (HSSOBP)

- Professional Integrity
- Prebriefing: Preparation and Briefing
- Facilitation
- Debriefing

Source: Watts, P. I., Rossler, K., Bowler, F., Miller, C., Charnetski, M., Decker, S., Molloy, M. A., Persico, L., McMahon, E., McDermott, D. S., & Hallmark, B. (2021). Onward and upward: Introducing the Healthcare Simulation Standards of Best Practice™. *Clinical Simulation in Nursing*, 58, 1–4.
<https://doi.org/10.1016/j.ecns.2021.08.006>

General Simulation Principal

The Basic Assumption™

**We believe that everyone participating
in activities at (Insert Organization Name)
is intelligent, capable, cares about doing their best,
and wants to improve.©**



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Institute *for* Healthcare Improvement

- “Model for Improvement”
- Quality Improvement Framework
- Process for Measuring Change



Source: <https://www.ihl.org/library/model-for-improvement>

May 2025 Diabetes Emergency



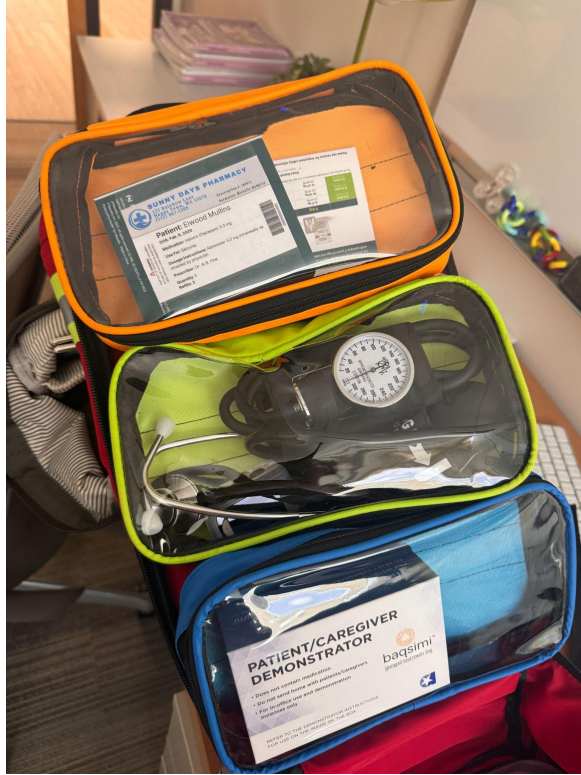
June 2025 Simulation Education



May 2026 Seizure Emergency



Other Tools Developed



Debriefing



Other Resources:



Division for Children & Youth
with Special Health Needs

MASSTART

Massachusetts
Technology Assistance Resource Team

A Free Program Providing Services for
Children with Special Health Care Needs and
Who May Be Assisted by Medical
Technology in the School Setting

Third Edition

Supporting Students with Special Health Care Needs

Guidelines and Procedures for Schools



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MASSACHUSETTS SCHOOL NURSE CONSULTATION PROGRAM

Simulation Equipment Loan Program

Introduction and Vision

The Regional Consultants (RC) of the Massachusetts School Nurse Consultation Program are dedicated to improving the health and well-being of all school children and youth, and promoting inclusive and equitable access to schools, including for those students living with complex health care needs.

Many students with complex health care needs require skilled nursing services to safely attend school. To assist school nurses in creating professional development aimed at the practice and improvement of these nursing skills, the Regional Consultants have established the ***Simulation Equipment Loan Program*** to make simulation equipment available to school nurses to be used in conjunction with other educational resources, many of which are available on the Boston University School Health Institute for Education and Leadership Development (BU SHIELD) [Special Health Care Needs \(SHCN\) Library](#) [Pilot Site](#).

Description and User Guides



5 Year-Old Multipurpose and Emergency Care Pediatric Simulator (Gaumard)

The Five-Year-Old Multipurpose Patient Simulator is designed for practicing and developing pediatric nursing care and resuscitation skills. Skills relevant to the school setting include: tracheostomy care, catheterization (male and female), G-tube care, and stoma care.

See the user guide for all features: [5 Year Multipurpose and Emergency Care - S157](#)

Supplies for the 5-year Multipurpose Patient are:

- o 22 gauge (or smaller) needle
- o Tracheostomy tube size 4
- o Catheter size 12 Fr

List of Equipment* by Skill

*Refer to the [Equipment](#) page for a description of equipment on this page

Respiratory System

Skills

- Tracheostomy
- Ventilator
- Suctioning

Equipment:

Nickie Doll or 5 year-old multipurpose patient

Respiratory Care Skills Kit

- Tracheostomy Tube
- Tracheostomy Care Kit
- Suction Catheter
- Speaking Valve
- Heat Moisture Exchanger (HME)
- Bag Mask Resuscitator/Ambu Bag
- Suction Machine (in some regions)

Care and Maintenance



General Care of Manikins

Manikins are designed to be moved and positioned. We do ask that you take care in doing so, to prevent “falls” or other unintentional injuries.

Please note that while the manikins are “splash proof” they are not waterproof and should never be placed in water.

Please keep pens and markers away from the manikins as they will permanently stain the skin.

Manikins can be cleaned with a damp cloth and mild dish detergent and stored when completely dry.

Please do not use povidone iodine or alcohol swabs on the manikins.



MASSACHUSETTS SCHOOL NURSE CONSULTATION PROGRAM

Simulation Equipment Loan Program

Catalog



*with special thanks to Meg Burch for writing the first edition of this manual

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MASSACHUSETTS SCHOOL NURSE
CONSULTATION PROGRAM

How Does SELP Work?



Massachusetts School Nurse Regional Consultation Program Simulation Equipment Loaner Program (SELP)



Below outlines the process for borrowing any simulation or training equipment available. A list of all of the available equipment and additional resources for you to plan your training or professional development can be found on the “**Simulation Equipment Loan Program**” Website [HERE](#). Regional Consultants may be able to direct you to resources and trainers, but do not conduct trainings for individual schools or districts. Please reach out to your [Regional Consultant](#) for further information or assistance.

Step by Step Process for Borrowing Simulation and Training Equipment

Step 1

Determine
Need for
Borrowing
Equipment

Step 2

Go to WEBSITE
and Complete the
“Simulation
Equipment
Request Form”

Step 3

Review
Available
Resources
and Plan
Training

Step 4

Host or
Facilitate
Training

Step 5

Return ALL
Equipment per
Agreed Upon
Timeline in Good
Working Order

Sim Equipment Loan Program (SELP) Website



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<https://www.nasn.org/nasn2026/agenda/nasn2026-sessions/posters>



Simulation for Equity: Strengthening Massachusetts School Nurses' Capacity to Support Students with Medical Complexity

There are NO relevant financial relationships to report for the past 24 months for ALL those with the ability to influence the content of this educational activity.

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Background

The School Nurse Consultation Program team addressed nursing shortages, turnover, and increasing student medical complexity by expanding access to professional development through simulation-based education (Hayden, 2014; Willgerodt, 2024; NSCH, 2019). Collaborating with academic partners from the University of Massachusetts system, the Regional Consultants aligned with statewide workforce initiatives to strengthen and retain school health services that promote equitable, high-quality student care. Using the NASN (2024) Leadership and Quality Improvement Standards, the team secured simulation equipment, developed educational resources, and hosted regional meetings in May 2025 to introduce the Healthcare Simulation Standards of Best Practice (INACSL, 2021), provide hands-on training, and share a catalog of loanable simulation tools.

Questions

1. Does hypoglycemia simulation improve school nurses' confidence in responding to a pediatric hypoglycemic event in the school setting?
2. Does simulation training improve school nurses' confidence in leading a simulation-based training for a response to a pediatric hypoglycemic event in the school setting?
3. Is the School Nurse Simulation Program effective in providing resources and equipment needed for school nurses to develop their own simulation professional development programs in their schools?

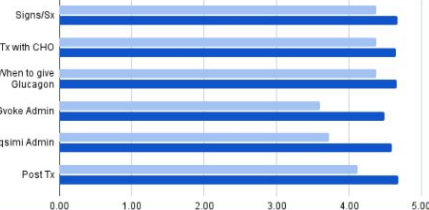
Findings

1. 206 participants over 6 regional meetings
2. Scenarios Developed: 2 hypoglycemia emergencies in a student with Type 1 Diabetes
3. Managing a Diabetes Emergency Survey: Improvement in all areas, most notably Baqsimi and Gvoke administration
4. Leading a Diabetes Simulation Survey:
 - o Improvement in all areas notably in demonstrating emergency protocols and proper use of the equipment
 - o Lowest confidence scores in leading a practice session, leading a prebrief, and leading a debrief
5. 100% of respondents indicated they were satisfied, very satisfied, or completely satisfied with the training
6. Most common suggestion was request for more simulation education

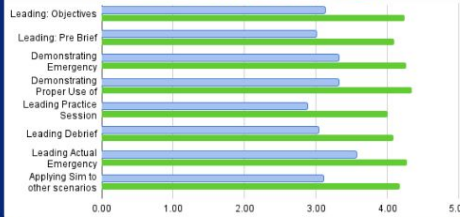
Contact: Patricia Smith, patricia.smith@braintreeschools.org



Confidence Scale: Managing a Diabetes Emergency
Pre Test Average v. Post Test Average



Confidence Scale: Leading a Diabetes Emergency
Pre Test Average v. Post Test Average



Summary and Next Steps

- This project demonstrated strong interest among school nurses in simulation-based education.
- Initial survey results showed improved self-reported confidence following the training, particularly in administering emergency medications during a hypoglycemic emergency.
- Survey responses and participant comments indicated a need for additional training to support school nurses in leading simulation-based education within their own districts.
- Following this project, an additional simulation education professional development program was hosted in the Northeast Region in collaboration with Saint Anselm College.
- Preliminary data from nurses who utilized the simulation equipment in their districts showed:
 - o 92% strongly agreed the equipment loan process was smooth and easily accessible
 - o 100% strongly agreed the program added value to their training experiences
- In May 2026, statewide regional meetings will again incorporate simulation-based education, focusing on seizure emergencies.

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Program Growth & Sustainability Considerations

- Program Funding
- Keeping Up w/ Increase in Medical Technology
- Sustainable Partnerships
- Staff w/ Simulation Expertise
- Continuous Quality Improvement (CQI) & Research
- Workforce Demands
- Program Marketing and Uptake
- Equitable Access Across the State

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about our course & resource offerings!**



shield.bu.edu

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