



# Resuscitation Quality Improvement® (RQI®) for Nursing Education

## Show Me the Evidence!

**Yolanda VanRiel**, PhD Associate Professor, College of Health and Sciences,  
North Carolina Central University

**Donna Nickitas**, PhD Dean, School of Nursing, Rutgers University – Camden

**Penny Smith**, MSN School of Nursing, Rutgers University – Camden

**Wendy Stock**, RQI Partners

Moderator: **Carol Durham**, EdD Professor School of Nursing, University of  
North Carolina at Chapel Hill



American  
Heart  
Association.



## **Conflicts of Interest and Disclosures**

If not specifically listed below, the planners or presenters indicated that they do not have any real or perceived vested interest that relate to this presentation.

Wendy Stock is an employee of RQI Partners, LLC, Salt Lake City, UT.

# Objectives

- 1) Discuss RQI in nursing and interprofessional education
- 2) Identify impact of high-quality CPR skills and cognitive performance
- 3) Explore lessons learned for advancing competency of high-quality CPR



American  
Heart  
Association.

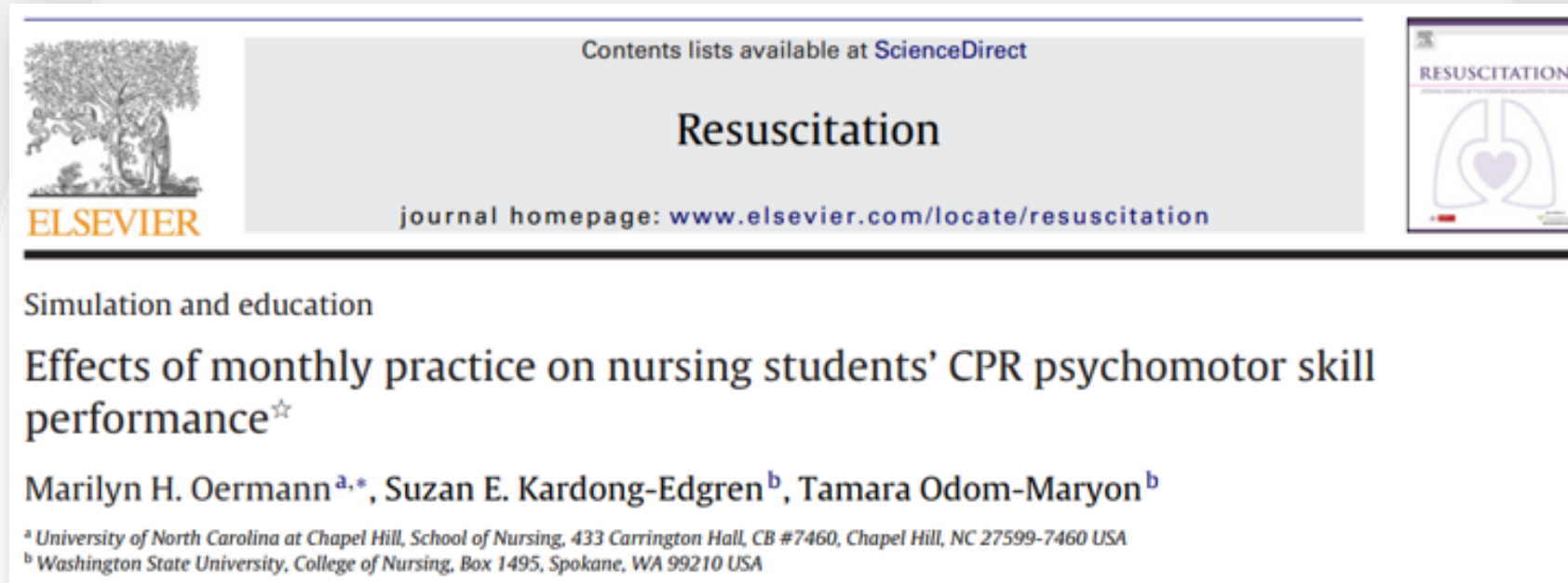


Laerdal®  
helping save lives

**RQI** RESUSCITATION  
QUALITY  
IMPROVEMENT.

An American Heart Association®  
and Laerdal Program

# Foundational Study



Oermann MH, Kardong-Edgren SE, Odom-Maryon T. Effects of monthly practice on nursing students' CPR psychomotor skill performance. Resuscitation. 2011 Apr;82(4):447-53. doi: 10.1016/j.resuscitation.2010.11.022. Epub 2011 Jan 11. PMID: 21227563.



# Partnership Empowering Nursing Students to Save Lives

National League for Nursing, American Heart Association, Laerdal, RQI Partners

*Help transform the standard of care for resuscitation by preparing future nursing professionals to respond to cardiac arrest events competently and confidently – leading to improvement in survival rates.*



# RQI – Return on Investment

---





# Aligns with AACN Essentials

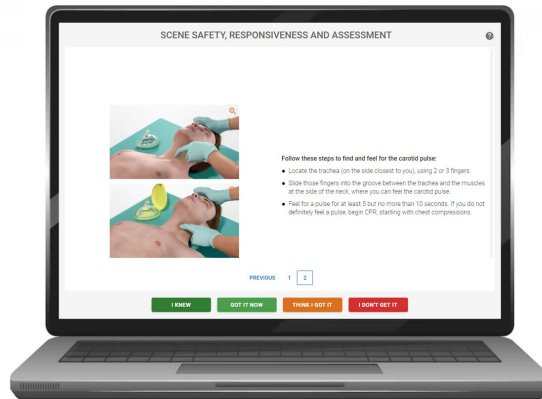
---

- Competency based assessment
- Analytics provide metrics for learners

A large graphic on the right side of the slide. It features a stylized, multi-colored arrow pointing towards the bottom right. The arrow is composed of several overlapping triangular and quadrilateral shapes in shades of blue, teal, and green. Above the arrow, the text 'THE ESSENTIALS:' is written in large, bold, blue capital letters. Below this, the text 'CORE COMPETENCIES FOR PROFESSIONAL NURSING EDUCATION' is written in smaller, teal capital letters.

**THE ESSENTIALS:**  
CORE COMPETENCIES FOR  
PROFESSIONAL NURSING EDUCATION

# Resuscitation Quality Improvement (RQI) Competency-Based, Self-Directed Education





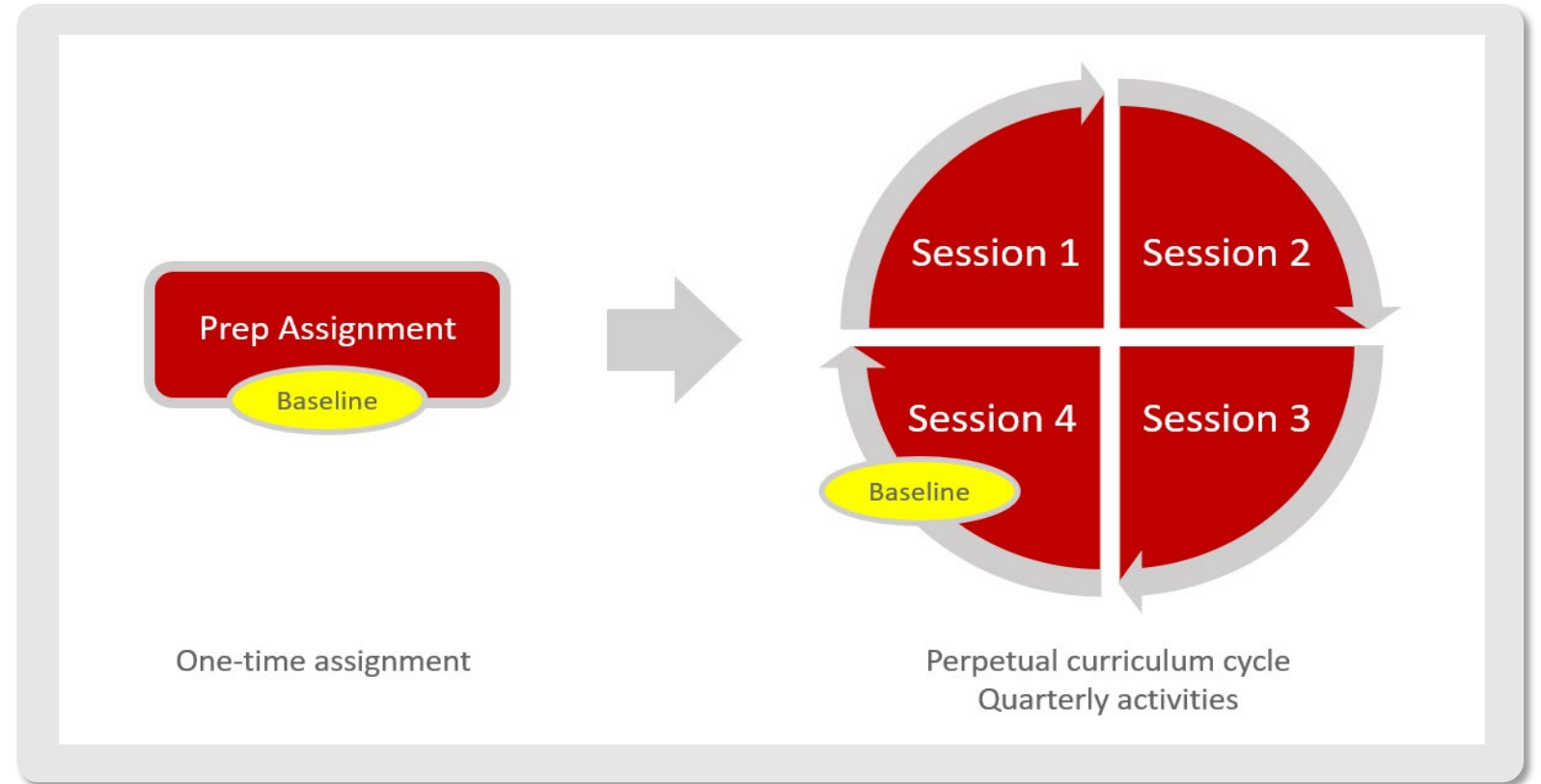
# RQI Student Journey

## Prep Assignment

- Teaches/validates clinical knowledge & skills competency
- Foundational eLearning & skills activities

## RQI Sessions

- Short, quarterly eLearning & skills activities



American  
Heart  
Association.



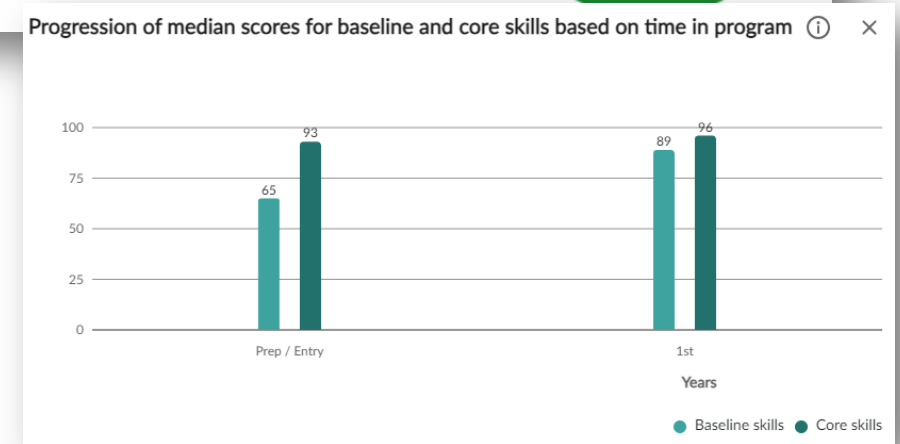
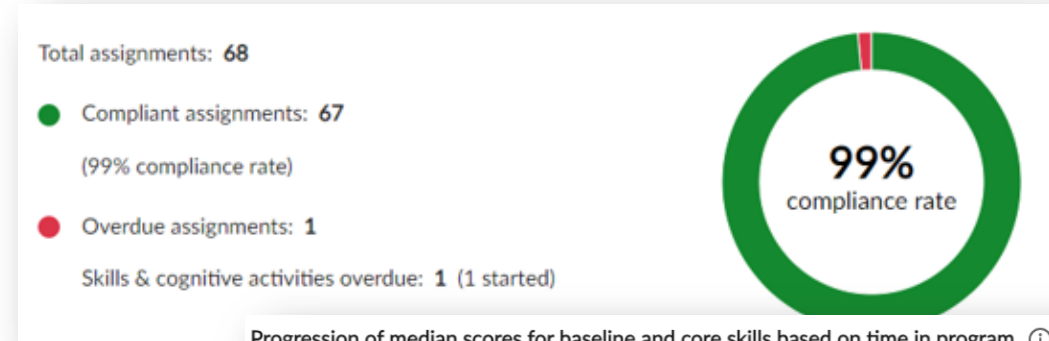
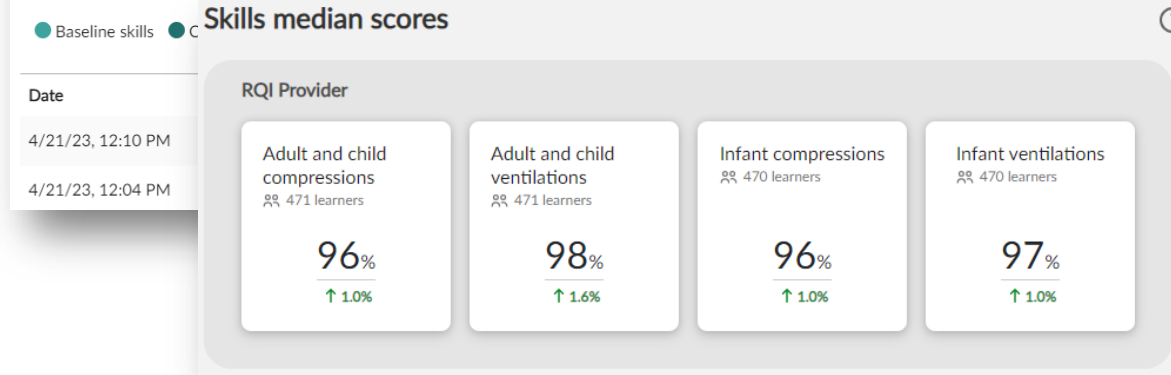
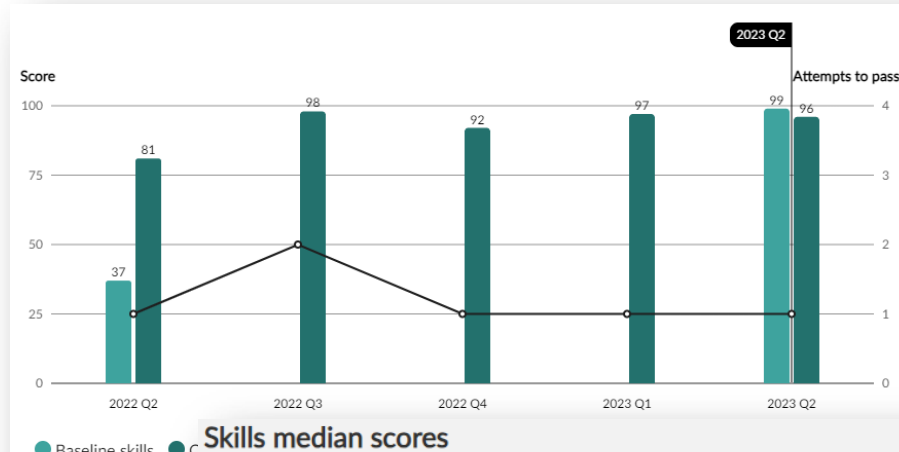
**Laerdal**  
helping save lives

**RQI** RESUSCITATION  
QUALITY  
IMPROVEMENT.

An American Heart Association®  
and Laerdal Program

# RQI Analytics

## Robust Analysis of Student Data



- Background
  - HBCU
  - 3 options-Traditional, Accelerated, and RN-BSN
- RQI Background
  - Early Adopter
  - Explain the benefits
  - Include other health majors
- Lessons Learned
  - Engage leadership
  - Decide on who will pay
  - Tie to a clinical course



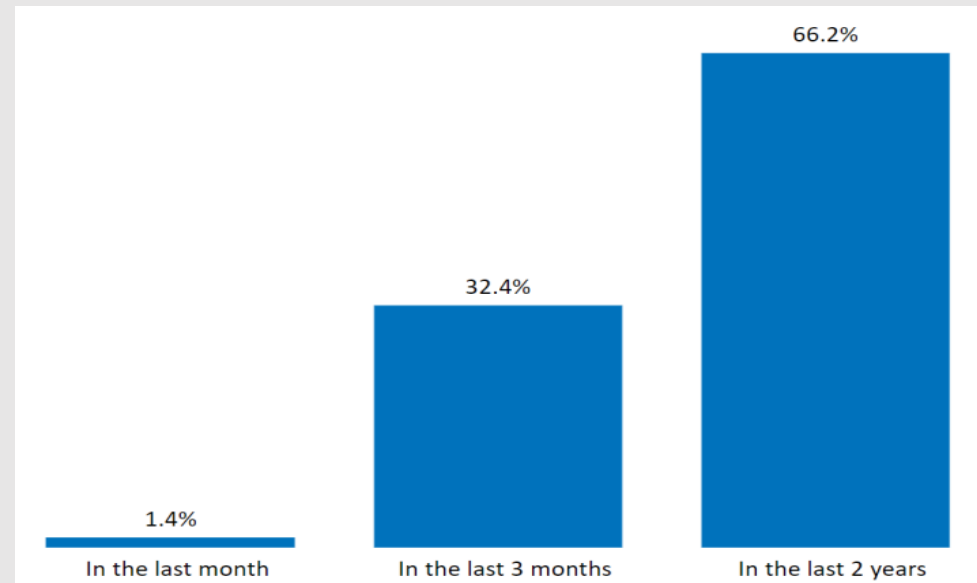
---

**NC Central**  
**U N I V E R S I T Y**

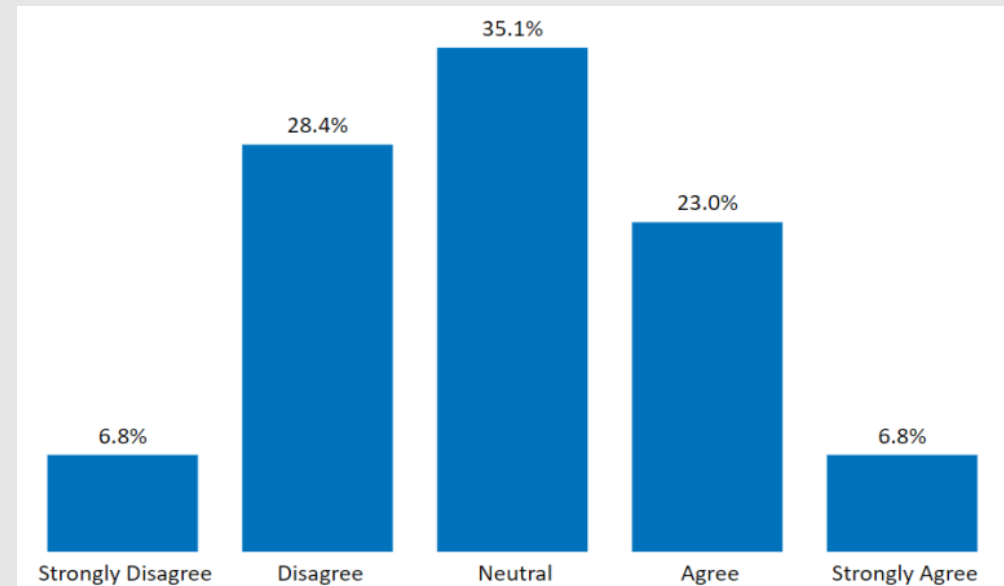
# North Carolina Central University

## Self-Assessment Questionnaire

When was the last time you completed CPR training?



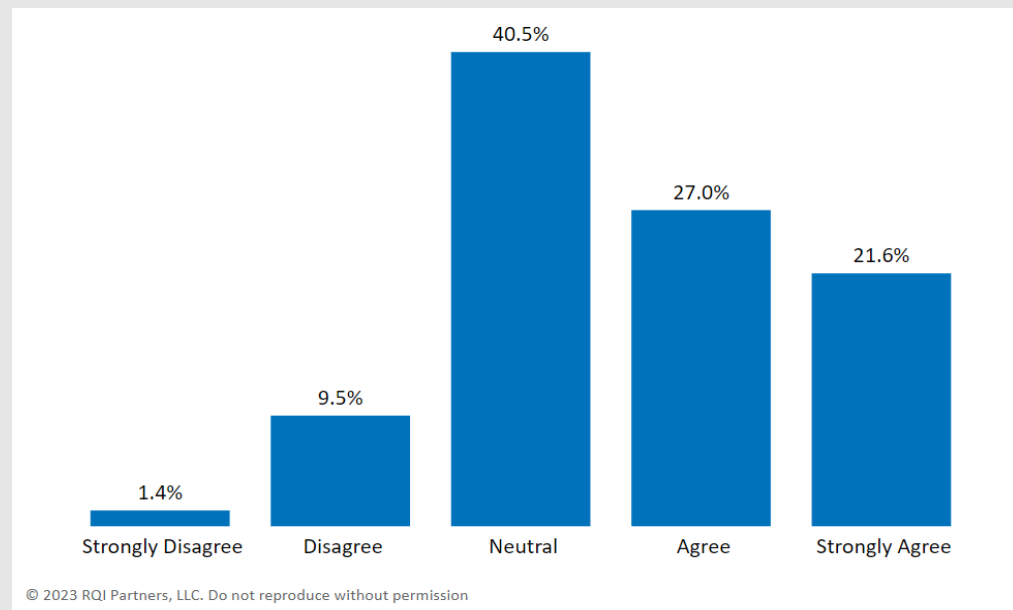
My CPR skills have decreased since my last CPR training session:



# North Carolina Central University

## Self-Assessment Questionnaire

I am confident performing high-quality CPR on an adult or child.



However, initial baseline skills  
(without feedback) assessment  
showed...

43% achieved passing adult compression scores

16% achieved passing infant compression scores

42% achieved passing adult ventilation scores

15% achieved passing infant ventilation scores



# North Carolina Central University

# 32,940

Student have performed over 32,940 compressions at the RQI Simulation Station

# 6,300

Student have performed over 6,300 ventilations at the RQI Simulation Station

#### About the data:

Includes data through: 07/05/2023

# of students: 59 who have completed at least one session of RQI

#### Number of Individual Compressions Performed

Assessment	Adult	Infant	Total
Baseline (without feedback)	4,140	4,380	8,520
Skills (with feedback)	12,960	11,460	24,420
Total	17,100	15,840	32,940

© 2023 RQI Partners, LLC. Do not reproduce without permission

#### Number of Individual Ventilations Performed

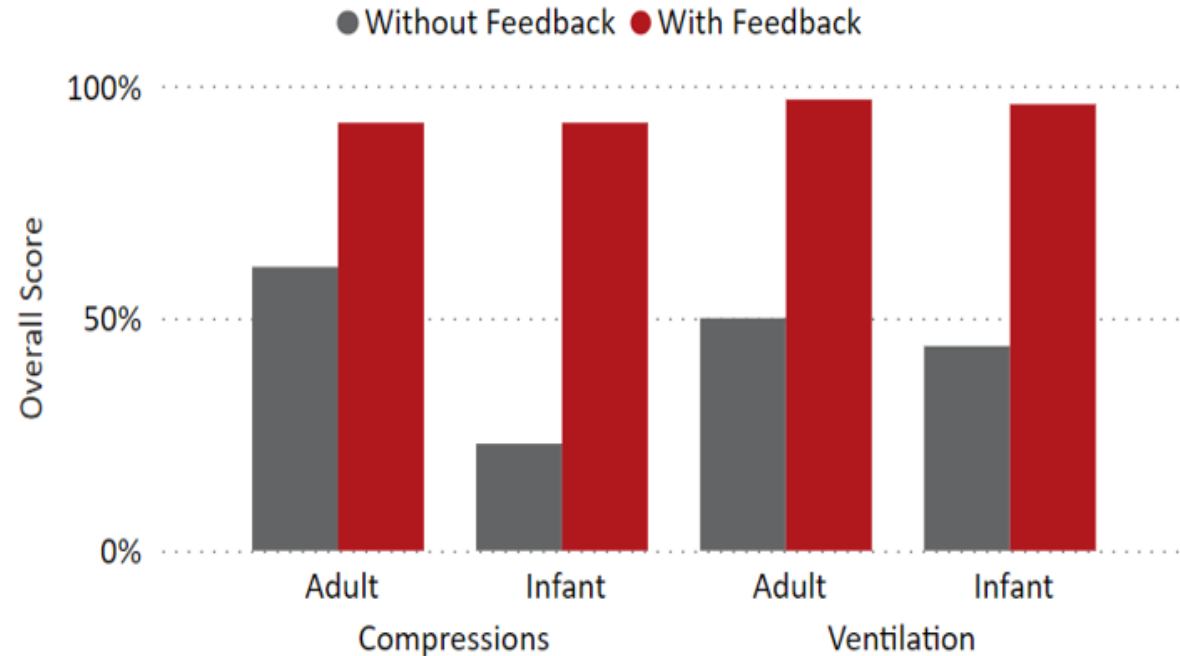
Assessment	Adult	Infant	Total
Baseline (without feedback)	780	708	1,488
Skills (with feedback)	2,760	2,052	4,812
Total	3,540	2,760	6,300

© 2023 RQI Partners, LLC. Do not reproduce without permission





# North Carolina Central University



© 2023 RQI Partners, LLC. Do not reproduce without permission

**Immediately post one RQI session with feedback students improved...**

Adult compression performance by [51%](#)

Infant compression performance by [300%](#)

Adult ventilation performance by [94%](#)

Infant ventilation performance by [118%](#)

## About the data:

Sample size: 59 students

Includes data through: 07/05/2023

Assessment type: baseline skills (without feedback) and skills (with feedback)





**RUTGERS**  
UNIVERSITY | CAMDEN



# Rutgers University – Camden

## 44,040

Students have performed over 44,040 compressions at the RQI Simulation Station

## 8,364

Students have performed over 8,364 ventilations at the RQI Simulation Station

### About the data:

Includes data through: 07/05/2023

# of students: 43 who have completed at least one session of RQI

### Number of Individual Compressions Performed

Assessment	Adult	Infant	Total
Baseline (without feedback)	3,060	3,180	6,240
Skills (with feedback)	18,840	18,960	37,800
<b>Total</b>	<b>21,900</b>	<b>22,140</b>	<b>44,040</b>

© 2023 RQI Partners, LLC. Do not reproduce without permission

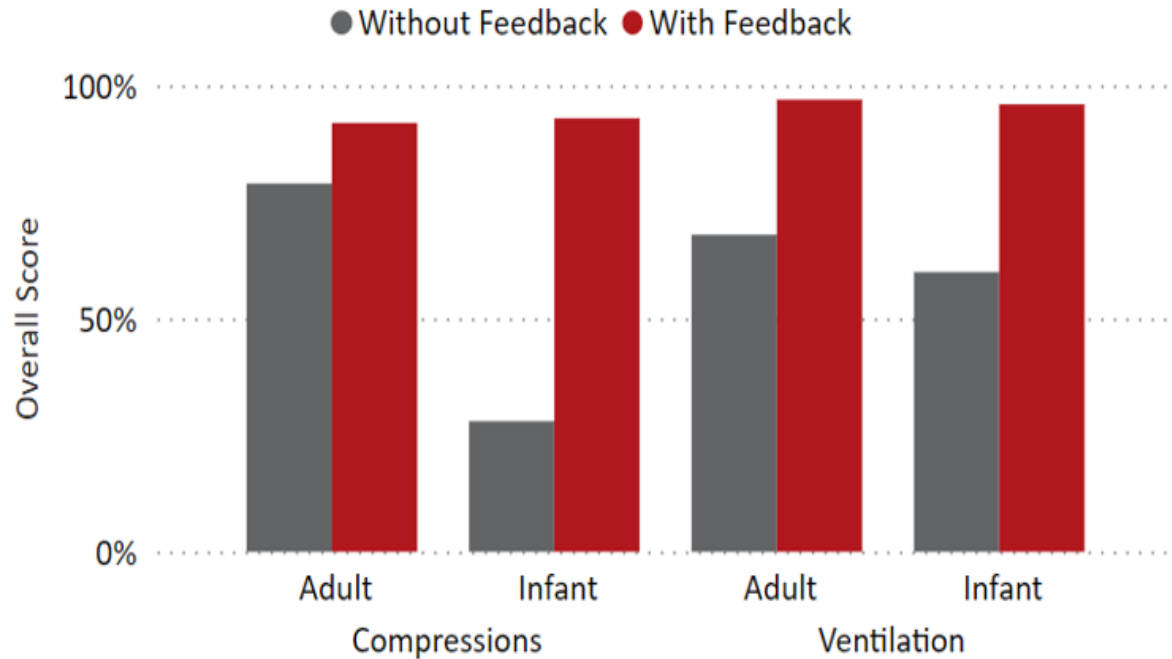
### Number of Individual Ventilations Performed

Assessment	Adult	Infant	Total
Baseline (without feedback)	516	576	1,092
Skills (with feedback)	4,260	3,012	7,272
<b>Total</b>	<b>4,776</b>	<b>3,588</b>	<b>8,364</b>

© 2023 RQI Partners, LLC. Do not reproduce without permission



# Rutgers University – Camden



© 2023 RQI Partners, LLC. Do not reproduce without permission

**Immediately post one RQI session with feedback students improved...**

Adult compression performance by [16%](#)

Infant compression performance by [232%](#)

Adult ventilation performance by [43%](#)

Infant ventilation performance by [60%](#)

## About the data:

Sample size: 43 students

Includes data through: 07/05/2023

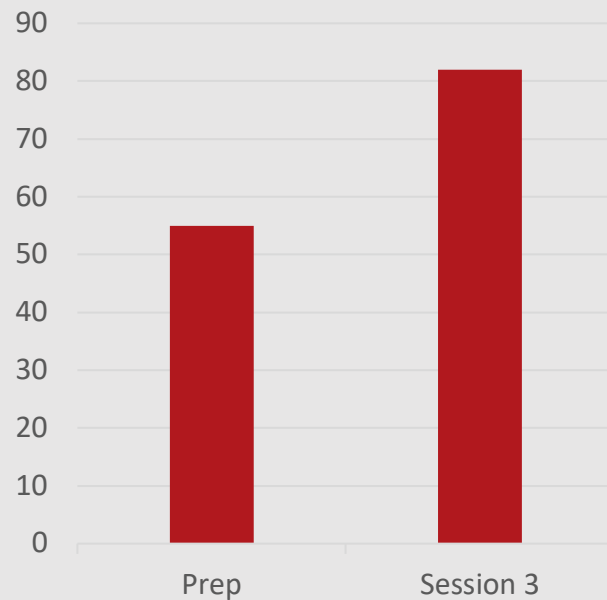
Assessment type: baseline skills (without feedback) and skills (with feedback)



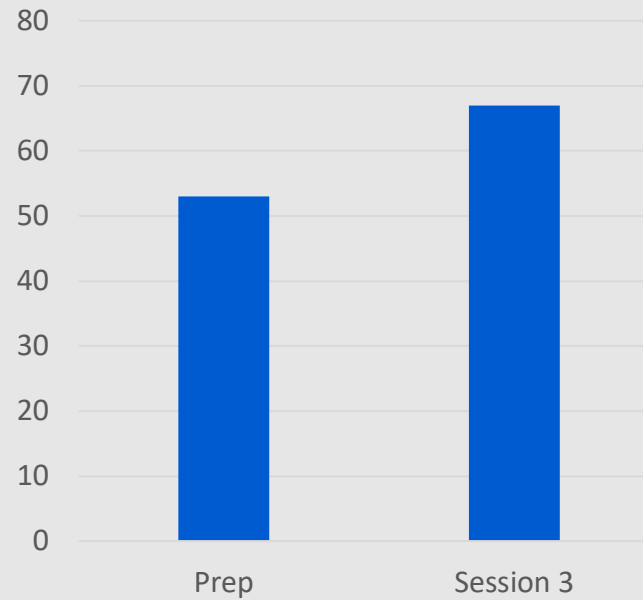
# Rutgers University – Camden

Percent of students able to perform high-quality adult compressions and ventilations on their first attempt

Adult Compressions



Adult Ventilations



**Adult compression:**  
49% improvement in  
1<sup>st</sup> attempt pass rate

**Adult ventilation:**  
26% improvement in  
1<sup>st</sup> attempt pass rate



**About the data:**

Sample size: 39 students

Includes data through: 07/05/2023

Assessment type: skills with feedback



# Rutgers University - Camden



# Question & Answer

