

Molloy College

DigitalCommons@Molloy

Faculty Works: Nursing

Nursing

11-2019

Expanding the Campus-Wide Sudden Cardiac Arrest Safety Net

Mary McCormack DNP, APRN, FNP-C

Carole Zarcone DNP, APRN, ANP-C

Kendra Hoepper DNP, APRN, PNP-BC

Follow this and additional works at: https://digitalcommons.molloy.edu/nur_fac



Part of the [Nursing Commons](#)

[DigitalCommons@Molloy Feedback](#)



Expanding the Campus-Wide Sudden Cardiac Arrest Safety Net:

Mary McCormack, DNP, APRN, FNP-C, Carole Zarcone, APRN, DNP, ANP-C & Kendra Hoepper, DNP, APRN, PNP-BC
The Barbara H. Hagan School of Nursing & Health Science
Molloy College
Rockville Centre, NY



BACKGROUND/SIGNIFICANCE

PROBLEM STATEMENT

ROL/EVIDENCE

- Nationally, approximately 326,000 episodes of out of hospital cardiac arrest (OHCA) occur annually
- < 6% of victims of OHCA survive to hospital discharge
- Rates of bystander CPR and automatic external defibrillator (AED) training have been reported at less than 3% annually in the United States; lowest training reports noted in minority population
- The risk of SCA is 3X greater in athletes



Relevance:

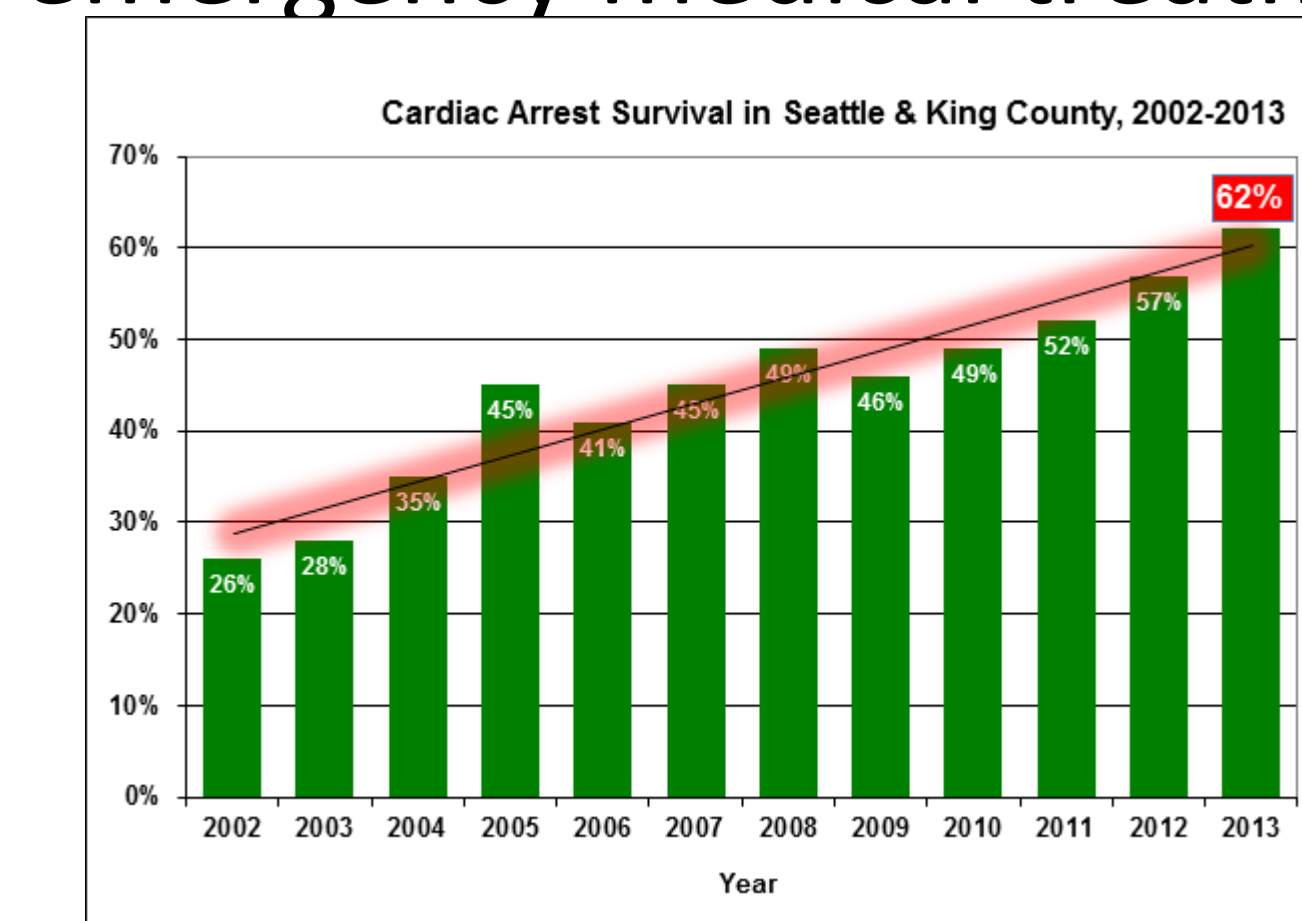
- Provision of bystander CPR for SCA in the community has been noted to increase survival rates two to three-fold
- SCA costs the U.S. healthcare system \$33 billion dollars annually

Question:

What is the knowledge level of college faculty and staff in CPR/AED use?

Will there be a change in the knowledge level of college faculty and staff in CPR/AED use after completion of the American Heart Association's (AHA) CPR in Schools Program®?

- 75% of the population in Kings Co., WA has received CPR training and reports the highest nation-wide survival rate from SCA due to ventricular fibrillation at 62%
- Most important factor affecting survival is early defibrillation
- Survival and future neurologic status post SCA are directly dependent upon how quickly the victim receives emergency medical treatment



METHODS

RESULTS

FUTURE PLANS

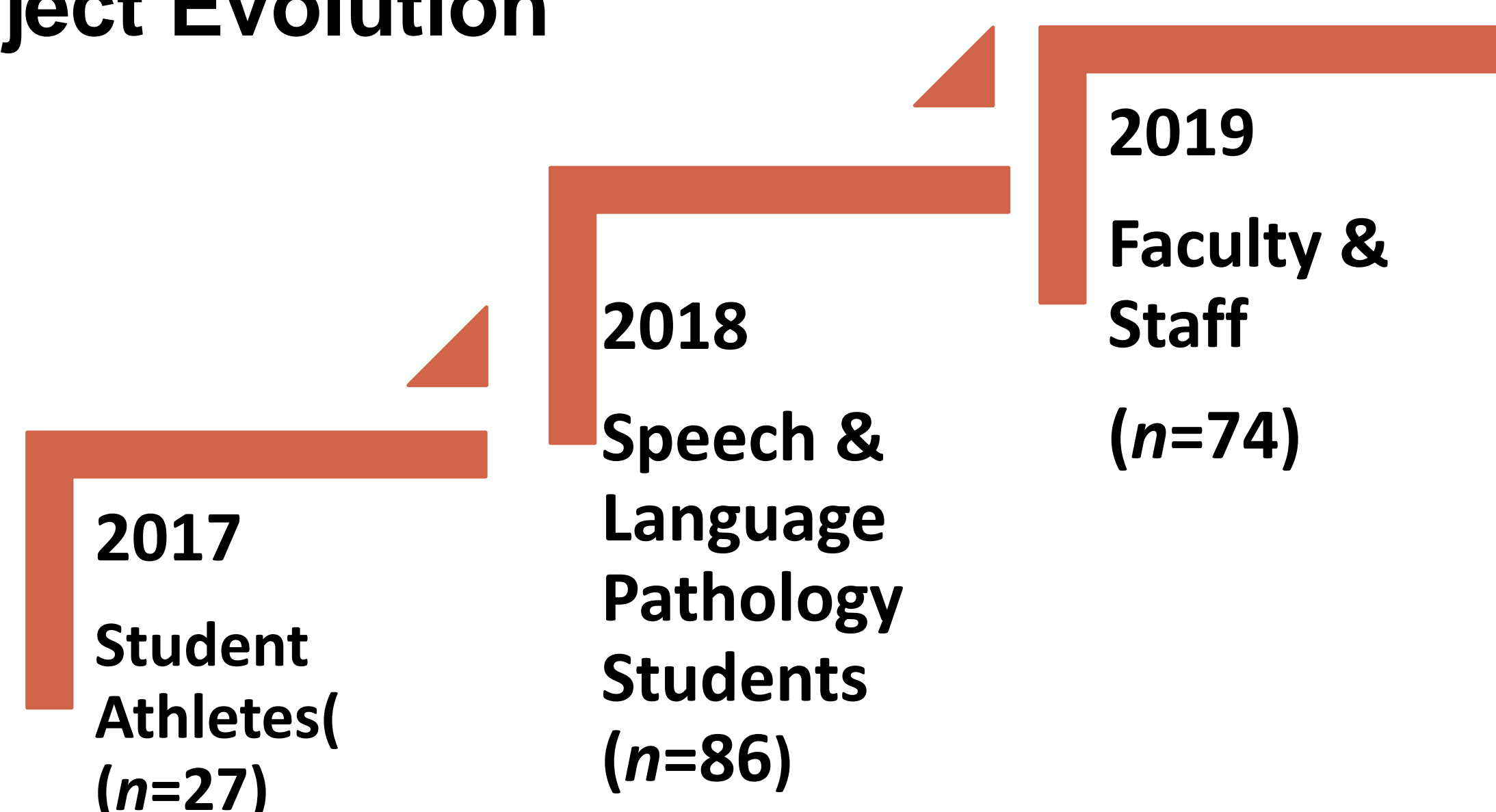
- Interventional Pre/Post test design
- Implementation of American Heart Association CPR in Schools Program®
- Setting: Liberal Arts College, Nassau Co., NY
- Multiple Sessions
- Convenience sample (n = 74)

- There was a significant improvement in the mean scores for the pre-test ($M = 2.31, SD = 1.65$) when compared to the post test ($M = 5.58, SD = 0.52$) $p < .001$
- Noted improvement in knowledge of AED locations on campus
- Participants reported an increase in comfort level performing Hands Only CPR if they witnessed an OHCA on the post test
- These results support that implementation of the AHA CPR in Schools Program improves knowledge level of CPR and AED use in this group of college faculty and staff.

- Presently collaborating with Public Safety to add additional AEDs in high traffic areas on campus
- Offering CPR in Schools sessions to all students in residence halls
- Create Cardiac Emergency Response Protocol
- Grant applications submitted to support future implementation
- Submit application to Citizen CPR Foundation for "Heart Safe Community"



Project Evolution



Anderson, M. L., Cox, M., Al-Khatib, S. M., Nichol, G., Thomas, K. L., Chan, P. S., ... Peterson, E. D. (2014). Cardiopulmonary Resuscitation Training Rates in the United States. *JAMA Internal Medicine*, 174(2), 194-201. <http://doi.org/10.1001/jamainternmed.2013.11320>

Institute of Medicine. (2015). *Strategies to improve cardiac arrest survival: A time to act*. Washington, DC: The National Academic Press.

Maron, B., Haas, T., Murphy, C., Ahluwalia, A. & Rutten-Ramos, S. (2014). Incidence and causes of sudden death in U.S. college athletes. *Journal of the American College of Cardiology*, 63(16), 1636-1643. doi:10.1016/j.jacc.2014.01.041

Resuscitation Academy. (2014). *Strategies to improve survival from cardiac arrest: An evidence-based analysis*. Seattle, WA: Resuscitation Academy.