

Background

Since 2009, the LSUHSC-NO Science Youth Initiative (SYI) has served as a science education pipeline for Louisiana elementary, middle, and high school (K-12) students. LSUHSC-NO trainees (graduate students, medical students, allied health professional students and post-doctoral fellows) and faculty perform hands-on experiments, patient assessments, and demonstrations to complement the K-12 curriculum.

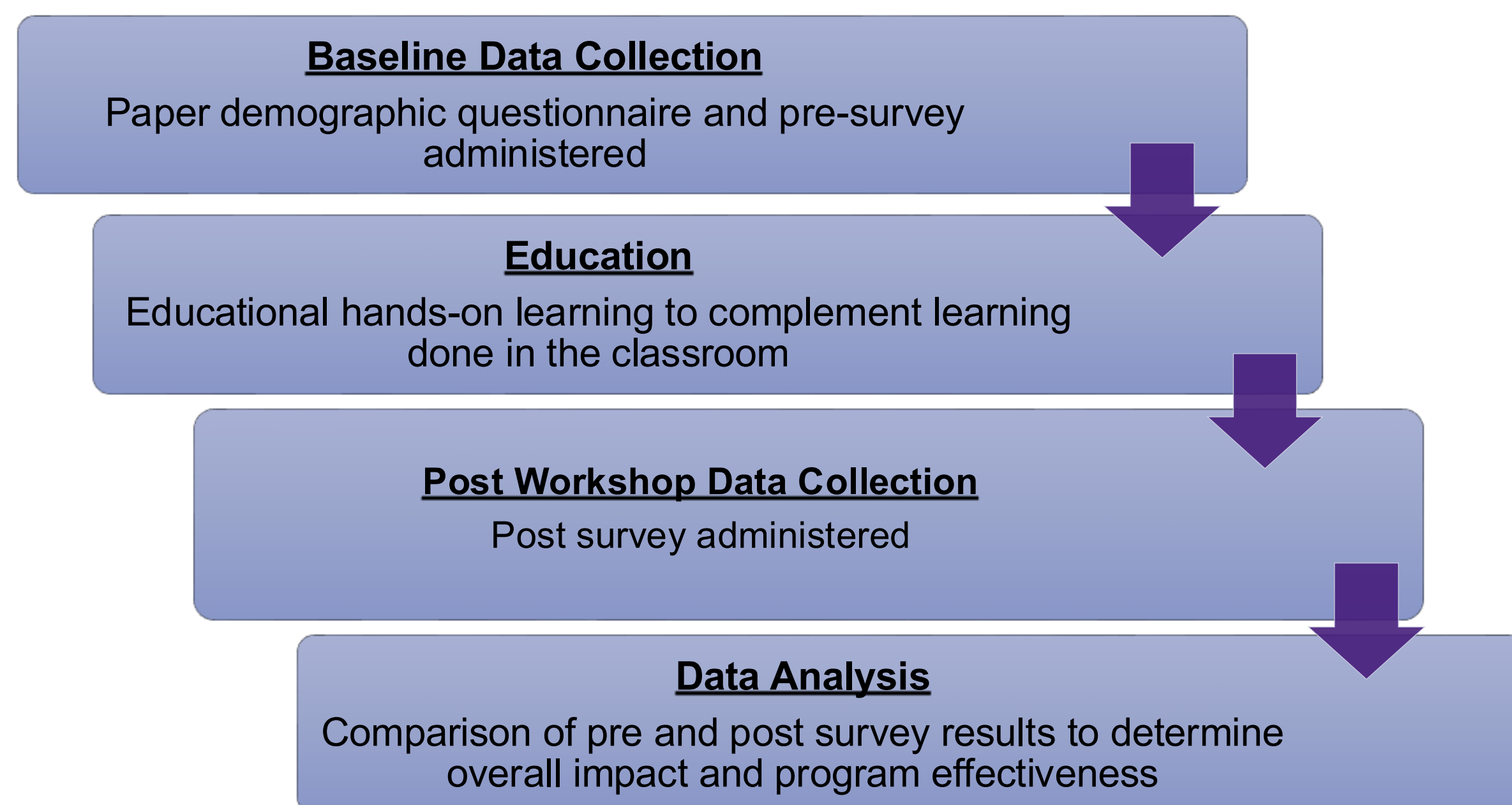
SYI goals: 1) translating complex science concepts to appropriate levels, 2) improving academic performance, 3) introducing students to diverse professional role models, 4) increasing awareness of health sciences careers, and 5) providing health education for historically underserved populations.

The SYI reached more than 3,000 K-12 students. In 2025, public health education and career components were updated for the high school curriculum.

Objectives: To assess the impact of the revised curriculum on high school students' knowledge gains, interest in pursuing advanced degrees, and awareness of public health-related careers.

Methods

From 2025-2026, high school students (n=119) completed anonymous pre/post surveys to evaluate their learning of the covered public health and science lessons, awareness of science and public health careers, future education intentions, and workshop satisfaction. Descriptive statistics characterized the survey participants to determine pre-post survey changes.



Results

Figure 1. Demographics Results

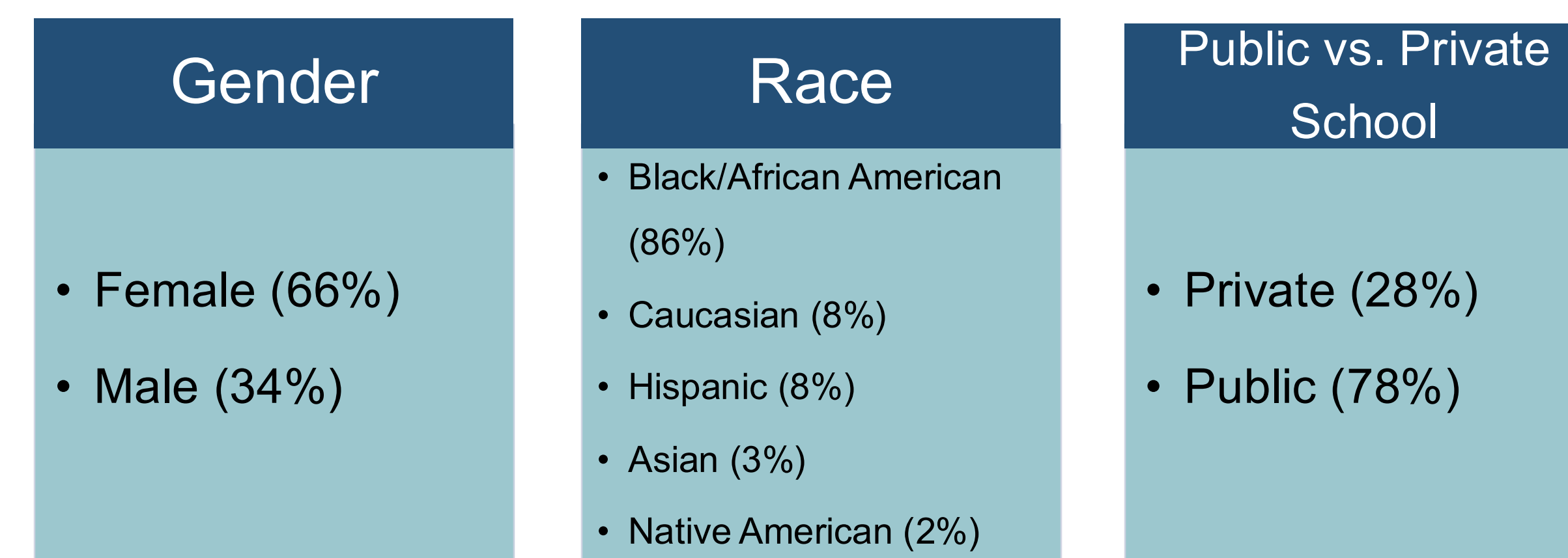


Figure 2. Pre and post survey results (n=119)

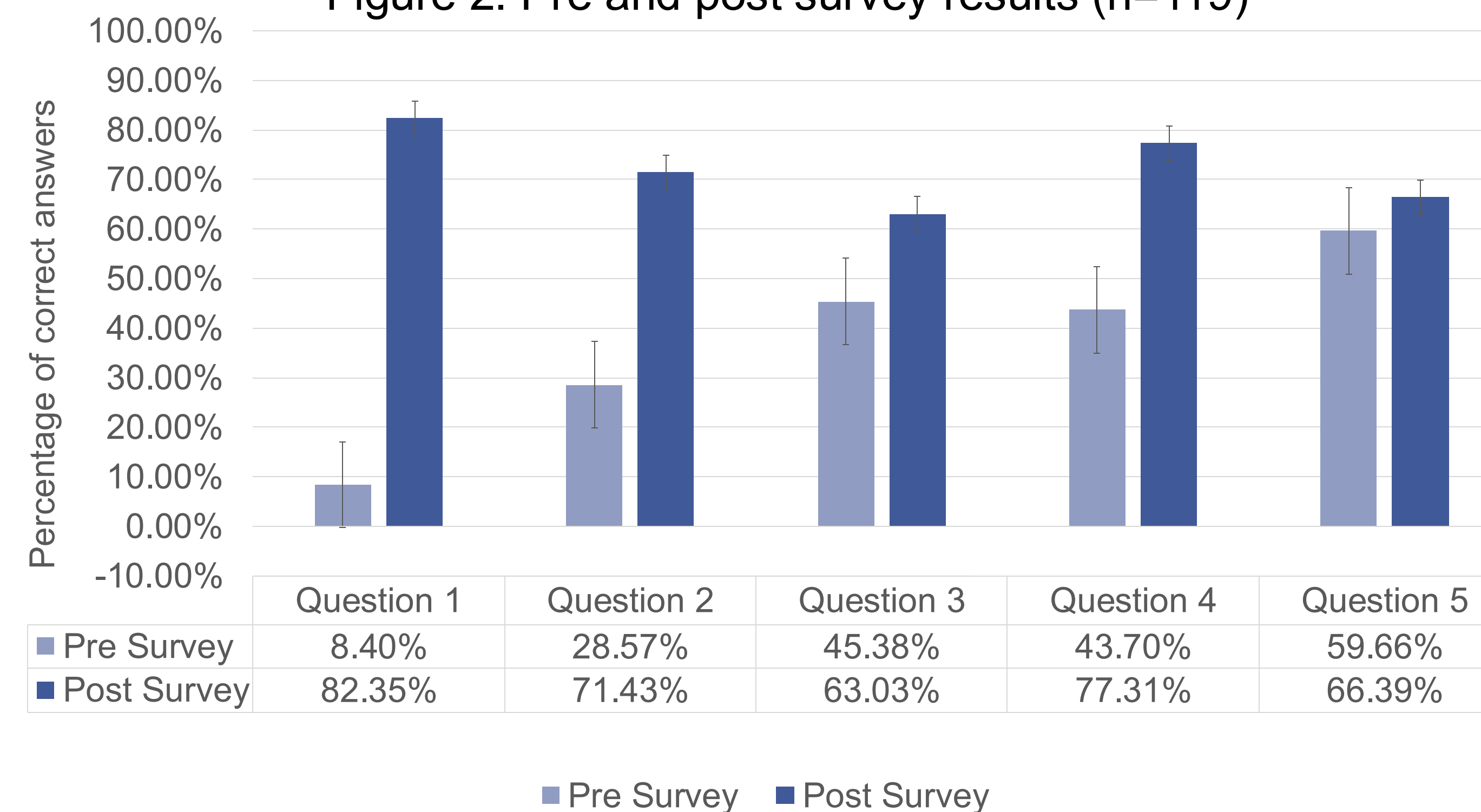


Table 1. Questions used in the surveys along with their correct answers.

Question	Correct Answer
Question 1. DNA has what type of charge?	Negative
Question 2. What causes the normal heart sounds of lub dub?	The sound of two pairs of valves closing inside the heart chambers
Question 3. Lead is safe at small doses	False
Question 4. The smallest bone in the body is in the:	Ears
Question 5. Which system is affected by tobacco?	All systems

Figure 3. Future career plans (n=119)

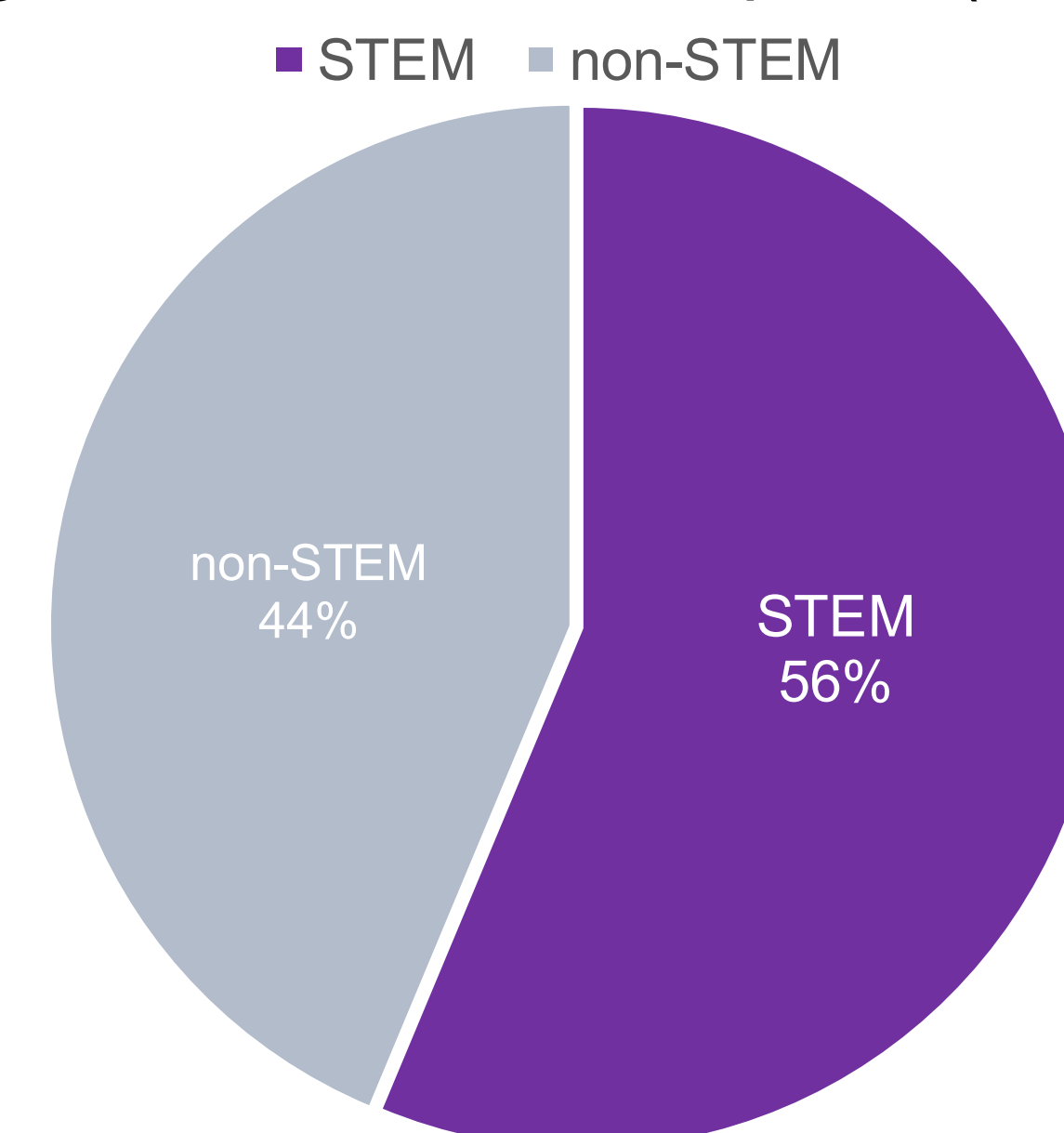
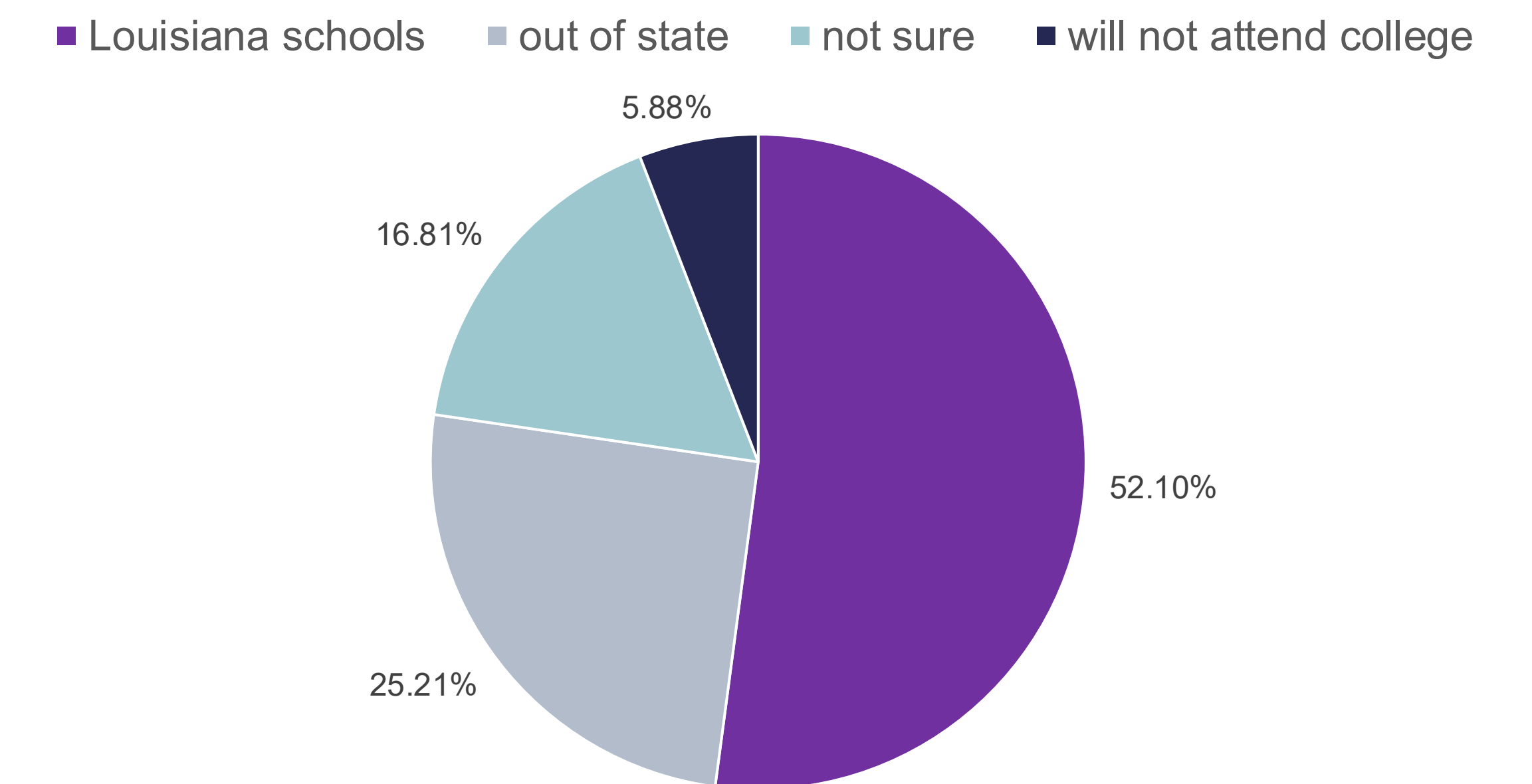


Figure 4. Future post-secondary education plans (n=119)



Conclusion and Discussion

- ❖ Preliminary data showed that the SYI program increased the participants' public health and STEM knowledge after participating in the program
- ❖ Students also demonstrated an interest in attending Louisiana colleges and pursuing STEM fields particularly in the health sciences
- ❖ Awareness of STEM fields in the health sciences was influenced by the SYI
- ❖ Other areas for research include barriers to science education among public schools vs. private schools in Louisiana

Recommendations

Comparison between the past and updated SYI curriculum and long-term tracking of participants will provide further information regarding how the program helps students with career paths.