**OBJECTIVES**
- Identify allergens and triggers that pose potential negative health issues.
- Inspect necessary safety equipment that can prevent physical injury.
- Examine participant behaviors that may alter indoor air quality.

**ABSTRACT**
This study assesses the indoor air quality in the residence halls on the Lakeshore campus of Loyola University Chicago by identifying triggers that pose potential negative health issues. We gave anonymous written surveys to students over the age of 18 residing in the residence halls. We also conducted walkthrough inspections in nine residence halls. Both quantitative and qualitative data were collected. Our findings show that major allergens present within the residence halls were dust, visible mold, and air fresheners. Most safety and precautionary measures are taken within the residence halls in order to reduce the risk of harm by fire, smoke, and carbon monoxide. Measures taken by residents to reduce the number of allergens present within their living area were not seen, showing that the risk of allergens is not completely understood by residents. As climate change modifies weather conditions and exacerbates pollution, factors such as infectious disease spread, thermal stress, and ventilation deficiency may intensify; thus, creating a major public health concern. We suggest that actions be taken to improve air quality within the residence halls by increasing public awareness of the health risks, eliminating sources of pollution, and improving air ventilation in order to anticipate these changes.

**METHODOLOGY**
- Developed a survey and distributed anonymous surveys to students age 18 and older on a volunteer basis.
- Information from the 66 surveys collected were compiled into a single Excel sheet and analyzed by category and halls.
- A walkthrough form and a walkthrough chart were created and used during visual inspections of the residence halls.
- Quantitative and qualitative data were collected, including room temperatures that were measured using an infrared thermometer.
- Data from the walkthrough forms and walkthrough charts were compiled into separate excel sheets and results were synthesized.

**SURVEY RESULTS**
- Most common symptoms reported by survey participants were nasal congestion, sore throats, and headaches.
- Most (61%) of the students did not notice any odors or other indicators of poor air quality in their dorm.
- Only 68% of residents practiced good cleaning habits and the typical frequency of room cleaning was weekly.
- Harsh cleaning chemicals and air fresheners were the most common sources of poor air quality.
- More students need to understand the negative effects that harsh chemical cleaners and air fresheners have on air quality.

**WALKTHROUGH-INSPECTION RESULTS**
- Major allergens present within the residence halls were dust, visible mold, and air fresheners.
- The average temperature throughout the different rooms in the participant’s residence halls were comfortable (between 65°F and 75°F) (Fig. 9 to 11). The only outlier was in Georgetown, where the average temperature in the bedroom was 79.8°F (Fig. 11).
- This outlier raises concerns, since occupants are likely to be exposed to higher pollutant levels at warmer temperatures.

**CONCLUSIONS**
- Indoor air quality within the residence halls of Loyola is moderate.
- The buildings inspected did not present signs of critically poor indoor air quality.
- More students need to understand the negative effects that harsh chemical cleaners and air fresheners have on air quality.
- Measures taken by residents to reduce the number of allergens present within their living areas were not seen, showing that the risks of allergens are not completely understood by residents.

**ACKNOWLEDGEMENTS**
This project was funded by the American Lung Association of the Upper Midwest. We thank Aaron Durnbaugh, the Director of Sustainability at Loyola University Chicago for his suggestions and providing equipment. We also thank Loyola’s Division of Facilities Management and Residence Life for their assistance with this project.