

Case Study

Mundelein School District



MUNDELEIN
HIGH SCHOOL

Mundelein
High School,
1 school



Mundelein,
Illinois



2,000+
students



5 Arc
devices

“R-Zero stood out because they’re actively engaged in engineering products that promote healthier indoor air quality in schools.”

*- Kevin Quinn,
Facilities Director of Mundelein High School*

The Challenge

Like many other schools across the country, Mundelein High School faced the daunting task of finding protocols that would allow their students to return to school in the fall of 2020 in the midst of the COVID pandemic.

“At the beginning of the pandemic, we tried to absorb the scope of what was happening,” said Kevin Quinn, Facilities Director of Mundelein High School. One clear guidepost in their solution evaluation process was that any new investments had to be based in science. “Follow the science has been our mantra,” Quinn continued. “We began by evaluating everything we had as far as transmission data, including touchpoints and aerosolization.” School leaders were also keen to evaluate the actual efficacy levels of the chemicals they used to disinfect classrooms and what further steps they could take to accomplish the guidelines provided by the CDC.

“Our high school has 392,590 square feet of curricular and co-curricular space,” Quinn went on. For Mundelein, it was not the social distancing aspects of providing safer shared spaces that presented challenges. The sheer size of the school was a source of complexity. “Our high school has 392,590 square feet of curricular and co-curricular space,” Quinn explains. Consequently, school leaders wanted to find a way to ensure the highest possible indoor air quality. Many schools rely on HEPA filter systems to improve air turnover, but not all equipment is constructed with a high enough MERV rating. The type of filter installed in the ventilation system can also restrict the amount of outside air brought into classrooms, which is a cause for concern when attempting to create the healthiest indoor environment possible.

The critical elements in Mundelein High School’s decision-making process were ultimately community confidence, efficacy, and efficiency. As Quinn describes it, the key question became, “If a student did come to school with a health issue, what protocol could we install to return them home while maintaining some semblance of a normal school day and environment for students?” Mundelein High School needed a way to disinfect the air without increasing exterior airflow, using more chemicals, or lengthening the protracted disinfection processes already in place.





The Solution

In November 2020, as Mundelein's search for options to safely re-open their classrooms continued, they found R-Zero. "We were inundated with solicitations from companies selling different air purification, cleaning, or disinfection equipment and processes, but they were selling products, not technology," Quinn emphasized. "R-Zero stood out because they're actively engaged in engineering products that promote healthier indoor air quality in schools."

The Implementation

Mundelein began implementation with demonstrations for parents. According to Assistant Superintendent Stacey Gorman, these demonstrations helped parents "feel really safe, because the Arc is such an amazing tool.

Every school night, Mundelein High School's custodians wheel the Arcs to each room in the facility to run disinfection cycles. According to Quinn, these cycles ensure that "students return safely to campus every morning." Arc is more effective than manual disinfection, which misses up to 50% of germs. UV-C disinfection has proven effective against microorganisms for over 100 years. Arc has been independently verified to inactivate 99.99% of microorganisms in an unoccupied room in 7 minutes or less.* Implementing hospital-

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grade, sustainable UV-C across the Mundelein campus has provided the team with incredible flexibility and rapid response, allowing them to get back to a "close to normal" school day. It's also strengthened the confidence of the school community, with parents reassured that protocols are effective and that children and staff are returning to safer spaces.

*Third party testing of SARS-CoV-2, feline calicivirus, MRSA, and E. Coli on hard, non-porous surface in seven minutes, samples taken at eight feet.

The Outcome

Arc's ability to dramatically reduce microbial counts in an unoccupied space has been a game-changer for Mundelein High School. Quinn confirms, "Now, instead of taking 72 hours to disinfect, we're able to turn over a classroom within 11 minutes of a health concern." This speed, assurance, and added level of protection enable the school to increase the number of students inside the school each day, with students returning to a higher standard of air quality and the confidence that they are safer.

Bringing Arc into Mundelein High School is a way of democratizing access to advanced technologies. In doing so, Mundelein is creating healthier indoor environments in arguably the most essential component of a community: their schools. These choices define social responsibility. When the pandemic ends, Mundelein High School plans to continue using their Arc units to keep a lid on other flu and cold bugs. "We trust this partnership will enhance as R-Zero continues to develop this platform," Quinn says. He adds, "R-Zero is the company you want to partner with. Our relationship with them has been extremely beneficial to our districts, and being aligned with them as they continue to develop products to make indoor school environments safer is the correct decision."



About Mundelein High School

Mundelein High School (MHS) is a public four-year high school located in Mundelein, Illinois, a northern suburb of Chicago. The school serves the village of Mundelein and parts of surrounding villages, include Vernon Hills, Grayslake, Hawthorn Woods, Round Lake, Wauconda and Libertyville.

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ABOUT R-ZERO

R-Zero's ecosystem is an ideal solution for schools to prioritize indoor environmental quality for students and staff. Through the use of sustainable UV-C disinfection, we enable safer indoor environments to minimize the use of chemicals and provide peace of mind to your school community.

Visit rzero.com/education to learn more about our hospital-grade disinfection technology for your school or district.

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