



Enhancing Indoor Air Quality for Early Learners

CASE STUDY
Groesbeck Independent
School District, TEXAS

BACKGROUND

Groesbeck Independent School District (GISD), located in Central Texas, serves approximately 1,600 students across five campuses. With a strong commitment to providing a top-tier education, the district emphasizes the importance of optimal learning environments, especially for its youngest students in Kindergarten, PreK, and daycare programs. Early education is crucial for developing social, emotional, and cognitive skills, including language development and self-regulation, which lay the foundation for future academic success. Additionally, these programs promote equity by ensuring all children have access to early learning opportunities.

GISD recognized the significant role of maintaining healthy indoor air quality in supporting early learners. By ensuring a clean, safe indoor environment, the district aimed to foster an environment where young minds can flourish, which also helps increase and sustain enrollment in these programs.

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Shonuh Jackson
third-year teacher at GISD

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THE CHALLENGE

In 2020, like many districts across the nation, GISD invested in air purifiers that required frequent filter replacements in 2020. However, when filters became scarce due to increased demand, the devices were no longer effective, leaving classrooms with subpar air quality. This issue was particularly concerning in the district's early childhood classrooms and daycare, where the youngest and most vulnerable learners, along with the children of district employees, spend their days.



Children, especially those in early learning environments, are known drivers of respiratory virus transmission due to frequent close contact and low immunity. This increased the risk not only within school walls but also in the broader community.

Poor indoor air quality (IAQ) posed multiple risks, including:

- Increased absenteeism due to illness
- Lowered academic performance
- Strained teacher and staff well-being
- Heightened transmission of respiratory viruses, including COVID-19 and influenza



Novaerus
Protect 900 Device

THE SOLUTION

To address these challenges, GISD partnered with WellAir's distributor, ProtectIED, a leading provider of indoor air quality (IAQ) solutions for educational spaces. Together, they implemented the Novaerus Protect 900, which utilizes NanoStrike™, a medical-grade air disinfection technology, in GISD's early childhood classrooms and daycare facilities.

NanoStrike technology, originally developed for healthcare settings such as neonatal ICUs, eliminates airborne viruses, bacteria, and mold spores. This innovative solution was selected for its proven efficacy in healthcare environments and adapted for use in schools to ensure the air quality met the highest standards. ProtectIED has deployed WellAir's Novaerus solutions in schools across the United States, helping to protect the health of students and staff in a variety of educational environments.

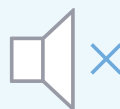
Key Advantages of Novaerus NanoStrike Technology



Reduction of airborne pathogens, including viruses and bacteria



Reduction of allergens and mold



Quiet operation that minimizes classroom disruption



Low-maintenance, cost-effective operation with no need for frequent filter changes

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RESULTS

Following the installation of the Novaerus Protect devices in its early childhood learning spaces, GISD experienced several positive outcomes:

Improved Attendance: The district noticed a significant decrease in absenteeism among early childhood students. Kindergarten attendance reached 98%, with GISD aiming to maintain an overall attendance goal of 96% in the next five years.

Enhanced Learning Environment: Teachers reported that classroom odors were no longer an issue, contributing to a more pleasant and focused learning space.

Staff and Volunteer Satisfaction: Employees using the district daycare expressed peace of mind, knowing their children were breathing cleaner air.

Employee Wellness: The air disinfection measures have been critical for GISD's volunteer grandparent program, where older adults work one-on-one with students, providing mentorship and emotional support. The improved air quality ensures these vulnerable volunteers feel safe.

Reduced Virus Transmission: GISD observed a reduction in illness transmission, contributing to a healthier school environment overall.

Broader Community Impact: By potentially reducing virus spread within schools, GISD helped curb outbreaks in the larger community as well.

January and October are usually the months where viruses spread, but I noticed we don't have as many students out. I may have one or two here and there, as opposed to half of the class."

Shonuh Jackson
third-year teacher at GISD



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CONCLUSION

The success of the Novaerus Protect 900 solutions in Groesbeck ISD's early childhood spaces has been clear: improved attendance, enhanced wellness for students and staff, and a healthier learning environment.

As one teacher noted, "For the first time, Kindergarten attendance is at 98%, which is huge for October—usually the month where viruses spread."

By creating safer environments for young students, GISD is not only protecting its current students but also setting the stage for long-term academic success. As a result, the district is working with ProtectIED to explore opportunities to expand NanoStrike technology across all campuses.

For other schools seeking to enhance air quality, GISD's experience offers a compelling case for adopting NanoStrike technology. With ProtectIED already deploying this solution in schools throughout the U.S., it's clear that protecting students' health through advanced IAQ solutions is an investment in their future—a future where learning continues uninterrupted, and schools remain safe havens for students, teachers, and staff alike.

Shonuh Jackson, a third-year teacher at GISD with over 23 years of experience, shared:

"Normally my voice changes in October, when the weather changes, and I haven't lost my voice yet—and that's a big thing. You need your voice in Kinder."

The results speak for themselves: clean air in schools makes a difference.