



Case Study



Virtua Health Selects Evolv for Emergency Department Security Screening Following Comprehensive Evaluation

Virtua Health

LOCATION: Southern New Jersey

ROOTS: Extend to 1880

NONPROFIT HEALTHCARE SYSTEM

STAFF: 14,000+

FACILITIES FOR DEPLOYMENT: 7

WEBSITE: www.virtua.org

Solution Snapshot

Goals

- Help reduce risk of violence in healthcare settings for doctors, nurses, staff, and patients
- Address Culture Survey findings from staff that pinpointed weapons screening as a top concern
- Help ensure security screening is less invasive
- Handle high volumes of people entering the facilities without significant delays
- Integrate security screening into the facility layout

Solution

People

- Evolv Solutions Engineer worked with Virtua Health to assess the location for each Evolv Express® system deployment
- Evolv Customer Success Manager coordinated onsite training for the Virtua Health team
- Evolv Customer Success Manager provided support for Evolv Insights® training and ongoing Evolv product line usage

Process

- Configured and deployed 17 Evolv Express systems
- Worked with Virtua Health team to update ConOps guide for managing weapons detection process

Technology

- 16 Evolv Express single-lane systems
- 1 Evolv Express ruggedized single-lane system
- Evolv Insights

Outcomes



Detected 6 handguns on the first day of deployment



Generated positive responses from doctors, nurses, and staff who feel the organization is proactively addressing security and safety



Enable doctors and nurses to focus on delivering patient care by reducing the threat of weapons



Strengthened partnerships with local law enforcement with dedicated spaces in hospitals for their use



Screen an average of 7,500 people at seven Emergency Departments daily



Screen up to 325,000 doctors, nurses, staff, patients, and visitors at 17 different entrances each month



More than 500 threats identified each month



Over 7,500 threats identified since first install



Annual Culture Survey Pinpoints Weapons Screening as a Top Staff Priority

Healthcare is beset with the highest rates of violence and use of weapons in the country.

"Healthcare organizations are not immune to what's going on in the general population," explains Dr. John Matsinger, who was named COO and EVP at Virtua Health in southern New Jersey six years ago after serving in clinical leadership roles for the prior decade. "Unfortunately, it has become more and more common to see workplace violence in healthcare." In fact, according to Health Affairs, "Healthcare workers experience the highest rates of violent injuries in the workplace in the US: 7.8 per 1,000 workers per year, compared to rates under 2.0 per 1,000 for other private industries".*

Addressing the safety and security of doctors, nurses, staff, patients, and visitors is a top concern for Virtua Health. "Over the past four or five years, due to the increase in violence in healthcare, we have received a lot of feedback from our doctors and nurses on the need for tighter security screening," Matsinger relates. "In particular, based on the annual Culture Survey that we conduct with our staff, weapons screening has been a recurring, highly important theme for the past several years. Our doctors, nurses, and staff see what is happening with active shooter incidents, and they want us to ensure those don't occur in one of our Virtua Health facilities. To address these issues, we needed a solution that would screen everyone coming through the doors to our hospitals."

*Grossman, David C, and Bechara Choucair. "Violence And The US Health Care Sector: Burden And 1 Response." Health Affairs, Oct. 2019, www.healthaffairs.org/doi/full/10.1377/hlthaff.2019.00642.

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Dr. John Matsinger, COO and EVP, Virtua Health

First Evolv Encounter at a Phillies Game

In 2023, Matsinger encountered Evolv when he attended a Philadelphia Phillies game at Citizens Bank Park.

"I was impressed with the seamless nature of the experience—no lines or everyone needing to empty the pockets and bags," Matsinger relates. "As I know their VP of Operations and Security, I gave him a call, asking him about the new security screening technology they had just implemented."

At first, the Phillies VP wanted to know why Matsinger was interested in the technology. "I explained to him that the security screening requirements in healthcare aren't that different from those in professional sports," Matsinger notes. "The Phillies have one building with multiple entry points. We have multiple entry points across multiple buildings. We both want to deliver a more seamless screening experience, one without consistent lengthy queues or intrusive searches."

Matsinger subsequently asked Greg Pease, the Assistant Vice President of Security and Outpatient Services at Virtua Health, to check out the Evolv Express in person. Greg attended a game-day event observed the screening process and spoke with multiple members of the Citizens Bank Park team about their experience—how the technology worked, what the operational experience was like, the training and learning process, and support from the Evolv team.

"It was one of the first games of the season," Pease recalls. "The Citizens Bank Park team was very accommodating and put me at one of the gates where they typically screen 3,000 or more fans. I stood behind the security guard in the Flow Control position and watched how he managed everything from the Evolv tablet. I was able to observe how the team responded when nuisance alarms went off and how those items were tagged as part of the AI-enabled learning process. The crowd simply flowed through the gate without delay and lines."





Investigating Other Philadelphia-area Evolv Deployments

At about the same time Pease was reviewing the Evolv Express systems at Citizens Bank Park, the 2023 NFL season commenced, and he was also able to experience Evolv at the local NFL team's games.

"The stadium had elected to migrate to the Express," Pease observes. "I was able to observe how the fans responded to the Express and compare the deployments at the baseball and football parks. There was a distinct difference in the before-and-after picture, both from the perspective of the security team and the fans coming to the game."

But Pease's research on Evolv did not stop with the professional MLB and NFL teams; he also visited several other locations around Philadelphia where Express can be found. "I went to see Evolv in action everywhere they are used in the area," he says. "It was quite useful to see the different use cases and ways in which the Express is used. One of those organizations aligned most close to us in terms of regulatory compliance around ADA [Americans with Disabilities Act] and EMTALA [Emergency Medical Treatment & Labor Act]." All of Virtua Health's facilities are ADA and EMTALA compliant, and

Pease and his team vetted the Express systems against those requirements. "We found that the wider Express lanes are designed for ADA compliance—accommodating wheelchairs, walkers, and other devices," Pease explains.

"All configurations except outdoor model with standard mat are ADA-compliant for access."

"We have been able to tune each Evolv deployment to the requirements of that location. For items generating nuisance alarms like umbrellas and laptops, we tag them on the Evolv tablet. As a result, the Evolv technology becomes increasingly more accurate over time, and our nuisance alarm rate goes down."

Greg Pease, AVP, Security and Outpatient Services, Virtua Health

"We want our patients to feel they are safe upfront. You never want them coming into your facility and thinking it is not safe. Yet, we couldn't have lines of people waiting to pass through security and a screening process that made them feel uncomfortable, and then go through intrusive secondary security checks when an alarm did occur."

*Dr. John Matsinger, COO and EVP,
Virtua Health*



Greg Pease

AVP, Security and
Outpatient Services,
Virtua Health



Dr. John Matsinger

COO and EVP,
Virtua Health

Transparency of Evolv in the Evaluation Process

The transparency of the Evolv sales team throughout the evaluation process is something Pease appreciates.

"Evolv was very transparent in terms of what the technology can and cannot do," he says. "They told us the technology will detect weapons and large knives. It will not pick up small knives and certain types of other objects, and a lot depends on the sensitivity settings. It actually does more than what we were told."

Having seen Evolv in action at numerous organizations in the Philadelphia area, Pease knew he had found the right solution for Virtua Health. A decision to move forward with Evolv was made summer 2023.

The Technology Doesn't Work Without the People Behind It

Educating staff, patients, and even the community on the changes that would take place with the Evolv deployment was important for Virtua Health.

"Greg and our Operations and Security team did a great job working with our Marketing team in advance of the rollout to prepare everyone—our staff, patients, and visitors—for the changes that would occur," Matsinger remembers. "AI is tossed around a lot nowadays, and they ensured that everyone understood what the technology could do."

The Virtua Our Lady of Lourdes Hospital in Camden was selected as the first facility for the Evolv implementation in September 2023. "We started by having all 'super users' from all of our sites go through online training in the Evolv Academy," Pease reports. "Then, we had them come to the Camden location for hands-on training with the Evolv team. We wanted all our security team to see and experience the Express in person before going live with them. The training materials and Evolv Academy were a huge help in ensuring everyone on our security team understood the technology and how to operate it before each deployment."

Deploying at Seven Locations and 17 Entrances

In total, Virtua Health acquired 17 Evolv Express single-lane systems across seven campuses.

The Virtua Health Marketing team worked with the security team to brand each of the panels on the Evolv Express towers. “This enables them to blend into our environments and to remain consistent with our messaging throughout the organization,” Pease says. “Five campuses are live, and the other two will be live soon. The staff at those two locations can’t wait until they go live, and they keep asking us when they will get the systems. They’re excited because rather than worrying about their personal safety, doctors, nurses, and staff can focus on providing care to our patients.”

For each Evolv Express deployment, Pease and his team performed multiple walkthroughs to ensure the configuration of the system worked well for traffic flow.

“It was really important for us to get these correct out of the gate,” he observes. For guidance and support, an Evolv Solutions Engineer worked alongside Pease and his team to assess each location and configure the Express for optimal traffic flow. “In one instance, because the screening location was outside, we determined that an Evolv Express Ruggedized system was needed,” he says. “Evolv subsequently worked with us to update the order to ensure this change was reflected. We were very pleased with the support we got from the entire Evolv team.”

“We also took lessons learned from the first facility deployment and used those for our subsequent deployments,” Matsinger adds. “The sensitivity levels we adjusted, for example, after the first deployment based on our alarm rates.”

“Everyone who enters a facility is treated the same, and they can seek medical treatment without worrying as much about weapons being used. We recently had one patient come into an Emergency Department, who had just witnessed an active shooter situation on the news. She was thrilled to see that we had a weapons detection system in place.”

Greg Pease, AVP, Security and Outpatient Services, Virtua Health



Six Weapons Found on First Day

Right before the first Virtua Health facility went live with Evolv, a neighboring hospital experienced the discharge of a weapon that created a heightened alert.

"An off-duty officer entered their Emergency Department and committed suicide," Pease relates. "In our first day of rolling out Evolv, we found six handguns. Now, those belonged to off-duty or retired law enforcement officers. But because we had Evolv in place and a documented ConOps process, we were able to detect those weapons and lock them in a secure location while their owners received treatment."

Matsinger reflects further on what this means to patients. "We want our patients to feel they are safe up front," he says. "You never want them coming into your facility and thinking it is not safe. The feedback we get from patients and the community is that we aren't simply delivering care to those who need it but are trying to ensure they are safe when doing so."

"Based on the annual Culture Survey that we conduct with our staff, weapons screening has been a recurring, highly important theme for the past several years....To address these issues, we needed a solution that would screen everyone coming through the doors to our hospitals."

Dr. John Matsinger, COO and EVP, Virtua Health

A Layered Approach to Security is Crucial

The testing and deployment of the Express gave Pease and his team confidence in Evolv's ability to find mass casualty weapons to varying degrees based on selected sensitivity levels. However, Pease knew from his vast experience that the new technology alone wasn't enough—security needs to be a layered approach. "The Express is not going to stop everything, and it's not foolproof, as far as types of weapons coming in," Pease states. "It is just another layer of security."

Fitting Evolv into each hospital's security ecosystem and establishing it as another preventative layer of security was key—and this means reinforcing the people and processes behind it. "The Express is just a tool and a resource for our officers," Pease continues. "You can have the best technology out there, but if you don't have the right person behind it doing their due diligence, trained in situational awareness, de-escalation and all possible ConOps scenarios, you're going to miss things being detected by the system." Pease's investment in his team's training and familiarity with the system at each location became evident from day one.

Highly Scalable Screening Traffic Flow

The Evolv Express systems are proving to be highly scalable for Virtua Health.

It is extremely important that we have no lines at our Emergency Departments,” Pease says. “The Express at those entrances are on 24x7 and the throughput has been outstanding. We screen up to 5,200 people each day at our campuses.”

The Express has also scaled to support screening at the main entrances of each hospital. “We screen everyone who enters one of our facilities,” Pease comments. The ability to actually know how many people are coming into our facilities is something we get through Evolv Insights. This is not something we had before.”

Planning for Strategic Use of Evolv Insights® Analytics

The security team at Virtua Health has undergone many changes over the past six months, and Pease now has a team member assigned to manage Evolv Insights analytics.

“We have them going through online training in the Evolv Academy,” Pease explains. “Our plan is to leverage Evolv Insights in a strategic manner. We obviously want high-level data such as traffic flow but also more granular detail around items tagged as nuisance alarm, weapons found and the types of weapons detected, traffic flow at our different entrances at different times of the day and night.”

Pease also anticipates that the availability of Evolv Insights on both the MyEvolv Portal and Evolv mobile app will make it easier for him and his team to use the analytics. “Having analytics, global support, service documentation, and administrative functions in one location, accessible via the web or mobile app, is important for an organization that is distributed across multiple locations,” he adds.



A Positive Response from Staff and Patients

The Virtua Health staff have been very positive about the Express system rollout.

"I actually received a letter from one of them thanking us for prioritizing their safety and that of our patients by implementing the Evolv Express systems," Pease comments. "Our annual Culture Survey was conducted right before Evolv was deployed last fall. We're very excited to see the feedback from our staff when we run the survey this coming fall."

Patients have been just as enthusiastic about Evolv. "Patients sometimes have various questions for us about Evolv and are thrilled when we explain to them how Evolv is used to detect weapons and help prevent them from getting into one of our facilities," Pease says. "Everyone who enters a facility is treated the same, and they can seek medical treatment without worrying as much about weapons being used. We recently had one patient come into an Emergency Department, who had just witnessed an active shooter situation on the news. She was thrilled to see that we had a weapons detection system in place."

"In our first day of rolling out Evolv, we found six handguns. Now, those belonged to off-duty or retired law enforcement officers. But because we had Evolv in place and a documented ConOps process, we were able to detect those weapons and lock them in a secure location while their owners received treatment."

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Virtua Health*



A More Holistic Security Screening Experience

For those who do not set off an alarm, which is the majority of people, they simply walk through the Express lanes and keep on walking.

For those who do set off an alarm, the secondary security screening check provides both a safeguard against bad actors and also helps make sure people receive the care they need. "No one is turned away for care," Pease explains. "The red box on the Evolv tablet shows our security staff exactly where the potential weapon is located on the person's body or bag. They can focus on that area rather than guessing where the threat is at."

Pease concludes that Evolv does exactly what was promised. "Evolv gives us an environment that enables our doctors and nurses to focus on treating patients and facilitating their healing," he sums up. "For patients, seeing Evolv gives them the assurance that their safety and security while they receive care is a top priority."

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