

ILLINOIS HOSPITAL SYSTEM INVESTS IN IMPROVED PHARMACY TEMPERATURE MONITORING

Easy installation and affordability lead pharmacy manager to select Sonicu

Luke Herbert recognized pharmaceutical freezers could malfunction at any moment.

The pharmacy director at Katherine Shaw Bethea Hospital simply didn't fully appreciate how affordably he could hedge against the risk of failure presented to his perishable drugs.

Until it happened to his team.

And then they ran the numbers.

You hear about this sort of thing happening and we had spoken about putting this in the budget every year, but something else always came up," he explained. "Then we lost a refrigerator full of vaccines and we decided this would be the year we got a (temperature monitoring) system.

-Luke Herbert, Pharmacy Director at Katherine Shaw Bethea Hospital

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That's when the arithmetic jumped off the page.

"We obtained a few quotes from a few different vendors and saw it was going to cost about the same to protect ourselves with a new (temperature monitoring) system as we just had to pay in our sudden vaccine loss," he explained.

"The justification to make the investment becomes a lot simpler after you take a good look at the numbers."

He also cited the staffing challenges at a few of his clinics made the investment all the more pressing.

"Our company policy is to check temperatures on all our fridges and freezers twice a day, every day, but we're also a hospital system with small outlying clinics that aren't staffed seven days a week, so we'd come in Monday morning hoping the temperatures held steady over the weekend," he said.

"We recognized that wasn't going to be a sustainable solution and we needed visibility on the fridges when staff wasn't available, especially after the loss we just suffered."

Herbert said pricing was a top priority during the selection process and that Sonicu was cost-competitive and offered the features important to his team, including the mobile app, and compliance reporting for the Board of Pharmacy audits plus live U.S.-based support to help onboard and train his team.

"Sonicu was priced right and met our needs so it was pretty quick to get up and running right away," Herbert said.

When the increased protection of valuable (and often costly and increasingly scarce) drugs is coupled with the time savings to automate compliance reporting with an automated software solution, the return on investment for a remote, wireless temperature monitoring system for the pharmacy's operation can be significant.

"We recognize a lot of organizations are busy managing their day-to-day operations, and haven't completed the calculations to fully appreciate the time they're investing in compliance reporting and the (admittedly difficult) cost of a serious loss of assets like vaccines or other costly drugs," said Bryan Mitchell, Vice President, Marketing and Business Development, Sonicu.

"But we know from experience the savings often cover the cost of the monitoring and Sonicu customers enjoy the incalculable peace of mind from knowing their assets are protected."

Onboarding and Learning about Their Temperamental Fridges

Sonicu's implementation process is overseen by a dedicated **Customer Success Manager** (CSM). Installation can be either, full-service conducted by Sonicu-certified installation technicians or self-service supported remotely by the CSM.

Herbert, wanting to personally get out to visit many of the remote clinic locations, chose to personally install his temperature monitoring devices.

And then collaborated with an Indiana-based CSM to architect his organization's custom alarms and reports.

"I used it as an opportunity to get out and network with our clinic teams and found it pretty easy to (install)," he said. "If I can do it, anyone can do it."

He said the Sonicu mobile app install wizard simplified the process.

"Once I did it once or twice, it was really no big deal to efficiently get in and out of each location without any hassle. The mobile app installation (wizard) piece made it really easy to follow step by step and your team was great to work with to get the system set up how we wanted it," he said.



"Now we're working with each of our locations to ensure they have the app on their phone and are comfortable with the system. I've been preaching to them that it's all very easy and can help us avoid another refrigerator/freezer loss."

Herbert expects about 45 members of his staff to serve as regular users of the system and that each will be able to better manage their local cold storage devices.

Some Sonicu customers take a set-it-and-forget-it approach to the system, checking in when an alarm is tripped and an alert is triggered to catch their attention.

Herbert is a more hands-on style of user.

"I'm literally in the system every day and it's been incredibly eye-opening," he said. "It's hard to appreciate how much the temperatures can vary and move throughout the day before having this sort of monitoring system.



It has made me more aware of the need to be vigilant around our cold storage units."



Fridges are from Mars. And freezers are from Mercury.

A fellow Sonicu customer from an Indiana-based hospital explained fridges and freezers as similar to automobiles, each with a distinct personality, temperament, and likelihood to cause problems.

Some fridges can run flawlessly for years while others are constantly skirting the edges of appropriate temperature thresholds - unknown to their users until a monitoring system illuminates their performance patterns.

"Temperature and environmental data provided by a wireless temperature monitoring solution like Sonicu powerfully illustrate the point that cold storage devices are not created equal, and that you may have a lemon waiting for the worst moment to malfunction," Mitchell said.

"Paying attention to the data and capturing those trend lines over time can help leaders make end-of-life decisions and justify a new purchase with hard data that's otherwise difficult to capture."



Security and IT Support

Many Sonicu customers select the cloud-based system thanks to its simplicity to install and onboard, and can often get up and running without internal IT support.

The diverse connectivity options, including Wi-Fi, cellular and SoniLink radio communication technology, translate to flexibility as to how the data will be transmitted from their cold/frozen environment to the SoniCloud application.

"We recognize IT in a healthcare environment can be challenging even with smaller systems or remote locations," said Bryan Mitchell.

"We have passed hundred of Information Security Assessments with some of the most security-conscious IT directors in the country thanks to our Amazon Web Services native security as well as the fact our system does not communicate any HIPAA data or anything related to patients at all."

Justin Williams, a Systems Administrator at Katherine Shaw Bethea Hospital, said he was not overly involved in the onboarding process.

Given that we're in the healthcare industry, I would say here security comes first and is sometimes not as stringent as we would like it to be," he said.



"I have a background in banking before this, so a lot of the security-related things transfer. I'm primarily interested in what's inside that box. I'm always asking: What are you guys really running? Typical security and technical questions from Williams include:

- Are you running an Arduino or a Raspberry Pi with a flavor of Linux on it?
- And if so, what's your plan for supporting that?
- Do you push patches?
- Are we responsible for patching?
- What happens if there's a vulnerability on your device?
- Do you check your devices for that kind of thing?
- And if so, how regularly?

Across the board, he said Sonicu met his security concerns and feels confident that ongoing maintenance and support will not interfere with his organization's larger mission.

"What I find with a lot of IoT devices is that, and it's just unfortunately common, is that security tends to take a backseat to ease of use and functionality rather than being part of the design process for a lot of manufacturers and solution providers.

Because typically, they're focused on selling the product and its features to non-IT staff, and then a lot of times IT staff was brought in after the product was actually purchased."

He said Sonicu met his security concerns.

"So far everything's been great in terms of IT. I like the way you guys do your portal. That was cool to see. When they were connected, I haven't gotten any calls from Luke after he implemented this.

Once we made the network change, I haven't gotten any calls where I needed to jump in and re-troubleshoot really the product. He was able to take it over and own it."



Two-click compliance: Always ready for the Board of Pharmacy

The National Board of Pharmacy (NABP) does not specify specific requirements for temperature monitoring.

However, the NABP is responsible for setting standards for the practice of pharmacy, including the storage and handling of medications.

Pharmacies are required to follow USP <797> and <800> guidelines, which provide detailed instructions on the proper handling and storage of medications, including requirements for temperature monitoring.

These guidelines require pharmacies to monitor and document temperatures in storage areas and refrigerators where medications are stored.

USP <797> and <800> also specify temperature ranges for the storage of medications and require that medications be stored at the appropriate temperature range to ensure their potency and effectiveness.

Pharmacies must also have a plan in place to respond to temperature excursions, which can occur when the temperature in a storage area falls outside the specified range. It is important for pharmacies to regularly review and update their temperature monitoring procedures to ensure compliance with USP <797> and <800> guidelines and to maintain the quality of the medications they dispense.



The penalties for breaches of USP <797> and <800> guidelines can vary depending on the severity of the violation and the jurisdiction in which the pharmacy is located.

In general, violations of USP guidelines can result in regulatory action by state boards of pharmacy, such as fines, license suspension or revocation, or other sanctions.

Pharmacies may also face legal action by patients who have been harmed as a result of a medication error or other violation.

Additionally, failure to comply with USP <797> and <800> guidelines can lead to decreased quality of care and patient safety, which can result in reputational damage and loss of business for the pharmacy.

State Board of Pharmacies suggests that regular training and review of procedures can help ensure that staff members are aware of and adhering to the guidelines, and can help prevent breaches that could result in penalties.

Scores of retail and hospital-based pharmacies rely on Sonicu temperature and environmental monitoring to improve the way they collect, store and report on their facilities to stay compliant with USP <797> and <800>.



Ongoing Support: U.S.-based, free & live monthly training

Every Sonicu customer enjoys free, unlimited training via our Sonicu Academy as well as access to live monthly training sessions with our team to refresh, train new colleagues and learn about new features.

Our Indiana-based team of Customer Success Managers will help every customer on board their system and configure it to your exact requirements.

