

HOSPITAL, PHARMACY, HEALTHCARE Hancock Regional Hospital



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The supply chain issues are impacting medicine and some of these drugs simply aren't as readily available as they were before COVID. This makes protecting them all the more important as we simply can't assume we can restock like we did two years ago. It's scary to think about, but that's the world we live in now."

WATCH VIDEO

Tim Livesay

Pharmacy Director, Hancock Regional Hospital

Key Takeaways:

- Number of cloud-based monitors deployed: ~327
- Number of FTE hours saved per year: 2060
- Approximate salary savings: \$41,600
- Number of facilities served in system: 6



<u>Pharmacy Director Tim Livesay</u> worries about humidity.

As head of the pharmacy department at one of Indiana's most respected suburban hospitals, he has good reason to keep humidity levels top of mind.

His team of highly skilled pharmacy technicians operate a number of clean rooms in which life-saving drugs are compounded before being administered to patients with life-threatening ailments.

The suburban Indianapolis hospital received a prestigious <u>Leapfrog Safety Award</u> as an affirmation of the facility's commitment to patient safety.

And elevated humidity levels pose a serious risk to the drugs being mixed, and by extension the patients under the hospital's

care. Too high of humidity levels create conditions for bacteria and molds to grow, which can impact the efficacy of the drugs and, in the worst case, make them deadly rather than healing agents.

There was a <u>high-profile case in which a</u> <u>facility in New England</u> allowed humidity levels to climb too high and it led to contaminants in the drugs that killed dozens of people, Livesay explained.

"That case and all the legal action after it woke a lot of people up to how serious a threat humidity and other foreign agents really can be. We all realized this is something we can't afford to not monitor diligently."

So when humidity levels kept rising to unsatisfactory levels in a new oncology wing of the Hancock Regional Hospital, he had to take corrective action with the climate control contractor who recently installed the new air handling unit.

"Thanks to our monitoring and <u>alerts with Sonicu</u>, we saw that humidity levels in that new building kept rising into areas that were unacceptable for the sensitive work underway," Livesay said.

"We called the contractor back in and learned they had installed the wrong size air handling units during the new construction. The units were simply too small and could not keep up with the demand during the high humidity seasons," he explained.

"They had to take them out and install the right size units so we could meet our requirements."



Pharmacy Director Tim
Livesay leveraged Sonicu's
monitoring solution to
prompt a climate control
contractor to replace a
wrongly sized air handler
that was failing to properly
humidify one of the
clean rooms under his
management.

Tim Livesay

Pharmacy Director Hancock Regional Hospital

SAVING LIVES MEANS RELENTLESS MONITORING: Remote, wireless and cloud-based

While examples like the improperly sized air handler are not common, they do speak to the power of independent third-party remote wireless monitoring solutions to help healthcare professionals apply technology to improve medical outcomes.



We are constantly looking for ways to use technology to improve our level of care and all of the other facets of our facility that support our physicians and nurses and related staff."

Steve Long

Chief Executive Officer Hancock Regional Health "The advances in technologies for patient care in the past decades are nothing short of miraculous and technologies like Sonicu are very much part of our technology investment."

"We want our patients to know we're investing in as much technology as we can to support our staff in their mission to deliver outstanding patient care."

Livesay recalls a recent incident far more mundane than the wrongly sized air handling unit but every bit as powerful in appreciating the value of wireless temperature monitoring relative to patient safety.

While at home after work, he received an alert on his Sonicu mobile app after dinner about a fridge storing precious medicines. The temperature had risen quickly.

A second alert only moments later showed another rapid raise in temperature.

"I called our team and we literally moved everything out of that fridge and into a better unit in under 30 minutes," he said. "There's no doubt in my mind that we lose everything in that fridge without those alerts. It's moments like that you realize the power of this investment."

And in the current supply chain challenges of 2022, Livesay said losing those medicines is about more than simply a financial loss.

"Would we have had to write off those drugs and suffer that financial loss without those alerts? Absolutely we would have," he said. "But that's really not my biggest concern in today's world. My biggest concern is can we replace them quickly.

The supply chain issues you read about in the news are impacting medicine as well and some of these drugs simply aren't as readily available as they were before COVID. This makes protecting them all the more important as we simply can't assume we can restock like we did two years ago. It's scary to think about, but that's the world we live in now."



ALWAYS READY:

Compliance Automation

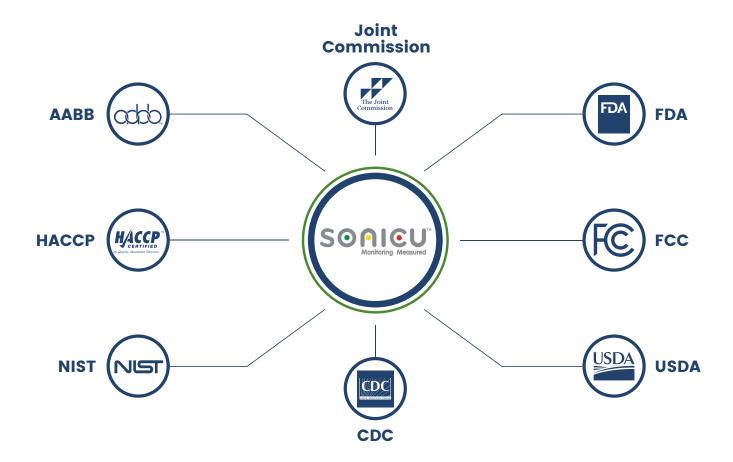
Healthcare is one of the most highly regulated industries in the world.

And for good reason.

Honest mistakes and forgetfulness that might adversely impact revenue or profit in many businesses can lead to adverse outcomes for patients. Or worse.

From the <u>Centers for Disease Control</u> and the Federal Drug Administration to your state's health department or even your local municipality's restaurant inspector, healthcare organizations face a raft of regulatory oversight aimed at ensuring patient care is always paramount.

The CDC in its most recent guidance for vaccine storage said reliable temperature monitoring is one of the three key pillars of cold chain effectiveness.

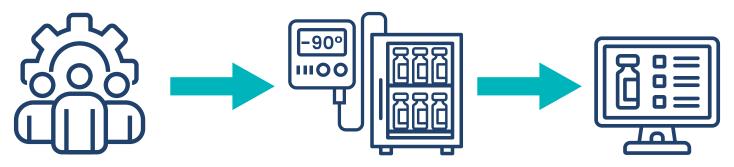


WHEN THE COLD CHAIN FAILS

Ensuring vaccine quality and maintaining the cold chain are shared responsibilities among facturers, distributors, public health staff and healthcare providers.

An effective cold chain relies on three main elements:

- A well-trained staff
- Reliable storage and temperature monitoring equipment
- Accurate vaccine inventory management



Results of a cold chain failure can be costly^{1,2,3} ACIP's General Best Practice Guidelines for Immunization states, "vaccine exposed to inappropriate temperatures that is inadvertently administered should generally be repeated"⁴

A break in the cold chain can mean extra doses for patients, increased costs for providers, and damage to public confidence in vaccines.



More importantly, patients refusing revaccination can remain unprotected from serious, vaccine-preventable diseases.

Livesay said Sonic has helped his organization be ready for the regular audits from pharmacy inspections and it was crucial in preparing Hancock Health for its role in leading the fight against COVID-19 in Hancock County.

"Having all the data we need at our fingertips is powerful for our team when any sort of audit or inspection occurs," Livesay said.

"Not only do we not have to worry about pulling all the logs out of binders and making sure we're not missing anything, but we can simply pull it up in our software and in a few clicks email it to where it needs to go to satisfy the audit. It's hard for us to calculate how much time that saves us but even harder to measure our peace of mind. How do you measure less stress?"

Additionally, the CDC required that all freezers storing COVID-19 vaccines had monitoring devices installed as part of its distribution plan to ensure the scarce and life-saving resource would be protected as it traveled from manufacturer to recipient.

"Having Sonicu in place was one of the elements that allowed us to play a central role in our community to distribute the vaccine," he said.

Livesay logs into the Sonicu platform to keep a close eye on ambient and cold storage as as well humidity and air pressure differential monitoring, all tied to real-time alerts and streamlined compliance automation.

TWO HOURS A DAY: Reducing Manual Logging

In a climate of labor shortages and rising employee costs, every healthcare executive is looking for ways to leverage technology to decrease the need for human resources and to allow employees to focus on patient care.

Before investing in their Sonicu system, Long and Livesay conducted an ad hoc labor study to better understand their costs for manual logging.

"We found it was about two hours a day of employee time we were dedicating to logging temperatures," Long said. "That's two hours a day someone is not focused on delivering care to patients and two hours a day adds up quickly."

That's ten hours a week. Or 40 hours a month. Add in the opportunity for human error, and it was a simple decision to upgrade from manual logging to automated remote wireless temperature monitoring.

"Our people need to be focused on our patients," Long said. "And our technology needs to be there to allow that to happen. When we're spending time on things like logging freezer temperatures, we're not doing all we can to serve our patients."

The Hancock team soon recognized it was more than temperature excursions that put their commitment to safety at risk.



Other critical environmental monitoring like the aforementioned humidity as well as ambient room temperature, <u>air pressure differential</u> and even unsafe noise levels could all be better managed against their safety goal with wireless remote monitoring."

"It's about empowering our people with the knowledge and tools they need to create the safest conditions possible," Long said. "Our commitment is to always be investing in the systems that ensure our staff and patients are safe. Sonicu and its monitoring platform is one of those critical systems for us."

Having one system for monitoring so many critical conditions has helped his team stay focused.

"I can't imagine if we had not invested in Sonicu," Long said.

"I know we would have many different monitoring solutions pieced together across the organization that would cause more work to organize and more stress with so many different potential alarm systems. Having a single view into all these alarms is another way we try to decrease complexity so our team can focus on patients."

BEFORE SONICU: Risks And Lapses

Technology like remote wireless temperature and other critical environmental monitoring acts much like cruise control in your car and also as the insurance protecting it and your occupants. It automates processes that used to take time and focus, and protects you against acts of nature or unavoidable human errors.

"Our refrigeration system was monitored manually; a staff member would go to each unit and record the temperature on a handheld thermometer. The problem with this type of monitoring is that you only know what the temperature is at the time of the reading.

How do you know what is happening in the other 23 hours and 59 minutes?"

Staff at Hancock Regional Hospital now invests more time focused on serving patients and less time completing cumbersome reports and manual logging.

And they know their environmental monitoring data is on the same AWS Cloud relied upon by the scores of other hospitals and government agencies as among the safest and most reliable.



Some of the most powerful benefits they enjoy now include:

- Automated measuring/logging unleashes staff from the burden on the freezer monitoring circuit and delivers peace of mind that human error won't be to the culprit behind a critical asset loss
- Eliminated thousands of Full Time Equivalent Employees (FTE) hours previously dedicated to manual monitoring and data logging.
- Continuous (24/7/365) tiered alarming that drive action
- User-defined parameters tailored to urgency levels that can be automatically escalated to the next level.
- Total monitoring and data accessibility via the AWS Cloud
- Data and alarming platform accessible from any desktop, email or smartphone.

SMART Management Tools:

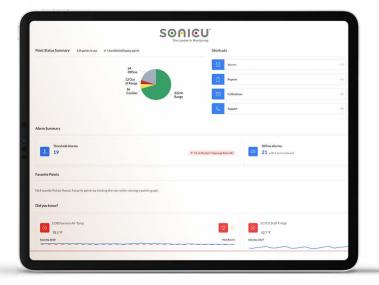
• Allows users to input comment and context for alarm events, automatically organizes reports by folder in user-defined formats to streamline reporting and documentation.

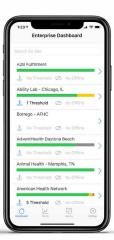
SNAP Recalibration

• Eliminated downtime associated with annual temperature probe recalibration requirements by pre scheduling a NIST traceable recalibrated probe that simply snaps back into service. Continuous (24/7/365) tiered alarming that drive action

Simple to scale

• Facilitates scaling opportunities for expansion and hardware purchases at a fixed price.





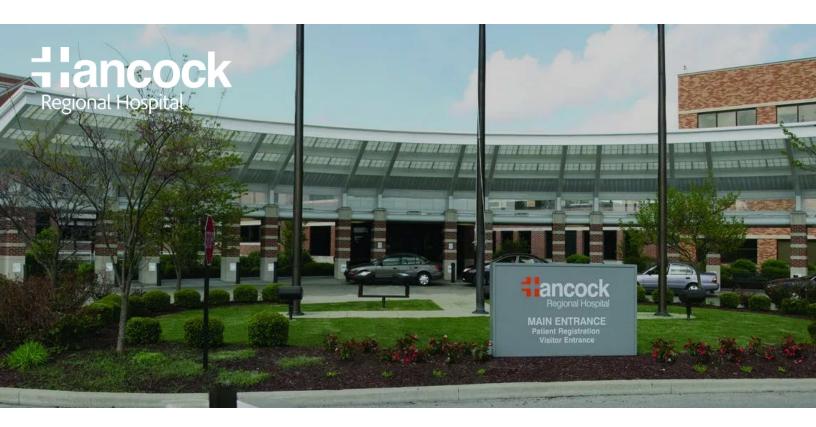
Given the success and peace of mind Livesay and Long now enjoy, Sonicu's recommendations are straightforward:

Mitigating the costs and risks involved when drugs fail to meet temperature storage consistency and the ability to quickly respond to regulatory bodies, hospital, pharmacy and clinic leaders should consider upgrading their current manual logging or memory card-based data logger with a cloud-enabled, redundancy-rich monitoring system.

Health system leaders (Directors of Pharmacy, Chief Medical Officers, Chief Nursing Officers, etc.) should compare the platforms for continuous temperature monitoring and invest to protect their facilities, patients and reputations.

They should also consider service after the sale and understand the training support provided to new employees.

By consolidating all its individual monitoring plans into one comprehensive system-wide enterprise license, Hancock Regional Hospital was able to identify all of its manual measuring and monitoring processes and automate them at one fixed price as its needs evolved.





The Leader In Monitoring

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