

# Providing Clinical Engineering Expertise to New York City's Largest Hospital System and the Community During COVID-19

## CHALLENGES

NYC Health + Hospitals is the largest public health care system in the U.S. It provides inpatient, outpatient, and home-based services to more than one million New Yorkers every year in more than 70 locations, including 11 acute care hospitals, across the city's five boroughs.

When COVID-19 exploded in March 2020, the healthcare system didn't have enough medical equipment to treat the flood of new patients. It needed millions of dollars of equipment, including ventilators, to keep patients alive. But soon after, the hospital also needed additional dialysis units, infusion pumps, and even beds. In addition, hospital officials had no way to store and deliver the equipment to the hospital.

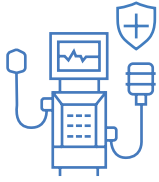
The hospital turned to Crothall's Healthcare Technology Solutions (HTS) Division for clinical engineering and healthcare technology management expertise as its trusted resource for guidance and support. Since 2014, Crothall has managed the life cycle of all medical devices and clinical technologies for the healthcare system – more than 100,000 medical devices that diagnose, monitor, and treat patients. Additionally, Crothall's financial management system has lowered the cost of managing medical devices and is projected to save the healthcare system approximately \$180 million by 2023.

“When the COVID-19 outbreak caused immediate shortages of key medical equipment, Crothall Healthcare responded, not as an equipment service vendor but as a partner to immediately support our cause of saving lives. Whether it was technical expertise for purchasing, allocating safe storage, or delivering critical medical equipment to our 21 facilities around the clock, Crothall responded beyond the scope of their agreement. When we asked for support, the response was always affirmative. At any point, there was equipment at their field service warehouses ready to be delivered. It's the latest example of how they are our 'go-to,' trusted resource and are always there to help us navigate through a crisis.”

— Joachim Wilson, Senior Assistant Vice President of Strategic Sourcing at NYC Health + Hospitals

## SOLUTIONS

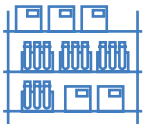
The Crothall team used its size, scope, and presence in the New York market to quickly and safely mobilize and execute a plan to secure, test, and deliver all medical equipment needed. As a result, from late March through December 2020, the following actions were taken:



### Procuring, Storing and Testing Urgently Needed Equipment

Working with its network of 500 vendors in the Northeast, Crothall assisted with safely procuring and storing medical devices. The Crothall team also tested every piece of equipment to ensure it was patient-ready prior to delivery, which included:

- ✓ 4,000+ Ventilators-CPAPs and other respiratory therapy-related equipment.
- ✓ 50 continuous renal replacement therapy (CRRT) units to treat patients suffering from acute kidney injury.
- ✓ 1,270 infusion pumps, many of which were secured through Crothall's Technical Resource Center.
- ✓ 776 miscellaneous pieces of equipment, including oxygen hoses and cardiac monitors.
- ✓ An additional 25 beds.



### Emergency Medical Equipment Storage

NYC Health + Hospitals did not have the space to store the new biomedical equipment. Due to its presence in the market, Crothall provided critical space so vendors could make 185 deliveries to two warehouses in Melville, N.Y., where the equipment was safely stored. One of those buildings measured over 8,000 square feet and was quickly filled, so Crothall tapped into its Compass Group resources to quickly secure an additional 6,500 square feet of local space from another division within the company.



### Accelerated Medical Equipment Testing

As the equipment arrived, Crothall's team of biomedical technicians tested each piece of equipment before it was delivered on-site. For example, those who specialized in respiratory equipment inspected thousands of ventilators, often working nearly 24/7. Many technicians were brought in from Crothall's Mid-Atlantic region and lived in New York for several months to expedite testing. Crothall's team of technicians proved critical because, in many cases, the original equipment manufacturers did not have the resources available to perform testing.



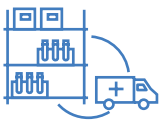
### Expeditious Delivery Process

Once the equipment was processed and ready for use, Crothall's team would receive instructions daily to deliver the equipment to several hospitals throughout New York City. Crothall expedited over 1,000 deliveries and, on one occasion, received a police escort to deliver equipment to one of the hospitals.

“ Our client faced an unprecedented crisis, so we quickly became their one-stop-shop for biomedical equipment delivery, storage, and maintenance. It was our responsibility to help them save lives. To do that, we agreed to take on several tasks beyond our usual scope. Our track record of inspecting, repairing, and maintaining more than 100,000 medical devices in recent years gave the health system confidence we could help them successfully navigate through the pandemic. ”

— Shashi Avadhani, Regional Vice President, Crothall Healthcare

## RESULTS



### Storing and Delivering Medical Equipment

Access to millions of dollars of critical medical equipment that helped NYC Health + Hospitals treat thousands of patients from March 20, 2020, through December 2020.



### Recovering a Projected \$180 Million in Savings

Crothall's financial management system has lowered the cost of managing medical devices and is projected to save NYC Health + Hospitals approximately \$180 million by 2023.



### Access to 5,000+ Pieces of Life Saving Equipment

Crothall's work to safely store, test, and expeditiously deliver more than 5,000 pieces of life saving equipment meant NYC Health + Hospitals could focus on saving lives.



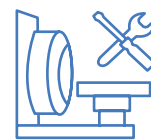
### Client Appreciation & Recognition

The Crothall team was recognized with an "Above and Beyond" award by the client as a show of appreciation for their contributions throughout the pandemic.



### Best Practice Solutions for Navigating a Crisis

- ✓ Crothall's ability to leverage its resources, ranging from biomedical technicians to hundreds of medical equipment suppliers, demonstrated its ability to provide an immediate solution.
- ✓ Crothall created a Biomedical Engineering Epidemic Contingency Plan for NYC Health + Hospitals, featuring best practice solutions for healthcare system customers across the nation.



### Preparing for the Next Crisis

- ✓ Crothall and NYC Health + Hospitals have agreed to maintain, store, and test equipment at the Crothall warehouse for the next several years in preparation for the next emergency.
- ✓ Crothall's team demonstrated how it could help a client achieve its health goals and help it navigate through a future crisis.



“This was one of the strongest examples of how Crothall’s fleet of field service teams and our Technical Resource Center worked in sync to rally in support of a health system during a crisis. It shows how a large company like ours can quickly pull resources, get equipment to a sophisticated health system, and ultimately help save lives.”

— Dan Dooling, Regional Director of Operations, Crothall Healthcare



## Partner with Crothall Healthcare

Maximize uptime and enhance the clinical engineering programs at your healthcare facility through healthcare technology solutions. Contact us to learn more about the benefits of standardizing your healthcare technology management and clinical engineering services to one provider with Crothall Healthcare.

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