

ADDRESSING HOSPITAL BED SHORTAGES: RAPIDLY DEPLOYABLE HOSPITAL FACILITIES

APRIL 2020

Coronavirus (COVID-19) is increasingly stressing the American healthcare system and will continue to do so in unforeseen ways. Government agencies, healthcare systems, and the military are tasked with rapidly increasing the nation's hospital capacity in preparation for an expected influx of coronavirus patients.

INCREASING CAPACITY

Hospitals across the U.S. are finding that existing healthcare facilities are not sufficient to handle the growing number of patients battling the rapidly spreading COVID-19 disease. At least 20 states are projected to have Intensive Care Unit (ICU) bed shortages within a month, with similar shortages projected for standard hospital beds. Convention centers, dorms, shuttered facilities, and hotels are being converted into temporary hospitals and makeshift medical facilities to address immediate needs in "hot spots" such as New York City, however, they often require several remedial actions to modify for healthcare use that can delay availability.

While additional funding has been allocated to hospitals through recent COVID-19 legislation, hospitals are finding the increase in costs to convert beds, buy equipment and increase staffing time in order to care for critically ill COVID-19 patients is adding up at a time when revenues are down.¹ Many facility solutions are far too temporary, so significant time and materials investments become sunk costs, limiting the flexibility of extended use and/or future re-use.

THE SOLUTION

The United States intends to build hundreds of temporary hospitals to ease pressure on our healthcare system. As decisions are made to repurpose an existing facility or erect a temporary site, another cost-effective option is available—Rapidly Deployable Hospital Facilities. A team of companies—Cognosante, Rogue-Sprung, and Healthcare Management Solutions LLC (HMS), have partnered to bring end-to-end services and capabilities to support the rapid deployment of these much-needed facilities.

The Structure—Rogue-Sprung, in business since 1887, has achieved international recognition by providing shelter solutions for a range of needs in over 100 countries throughout the world. They provide new, reusable hospital facilities that can be erected within two to four weeks as a stand-alone site or an annex wing to an existing hospital. They offer a more permanent facility that can be relocated, repurposed, and used again, serving the immediate need while providing a future return on investment through reuse or repurpose.

Their innovative building solution utilizes architectural membrane panels placed under high tension within a non-corroding aluminum substructure. It is not a tent and can be erected on existing concrete, asphalt parking lot or raw dirt, and assembled by local construction resources providing jobs during a struggling economy. The structure is:

- ▶ Negative pressure capable
- ▶ Easily configured for any space
- ▶ Designed for extreme wind loads (supports Miami Dade code) and by design, to shed snow
- ▶ Supports 40 enclosed hospital rooms or 92 open bay beds (larger sizes available)
- ▶ Compliant with local building codes

Medical Equipment—Cognosante, a leading provider of health IT solutions, business process outsourcing services, and consulting partners with a global defense contractor with integrated healthcare supply chain capabilities to aid in identifying, acquiring, and installing required medical equipment to meet outfitting requirements for these rapidly deployable hospital facilities.

¹ <https://www.npr.org/sections/health-shots/2020/04/06/828108255/growing-costs-and-shrinking-revenues-squeeze-hospitals-as-they-brace-for-coronavirus>

Exhibit 1: A rapidly deployable hospital supports 40 enclosed hospital rooms or 92 open bay beds.



Medical Data Integration—Cognosante also brings project management and technical capabilities that include a holistic technology ecosystem for the capture and integration of patient data. This includes integration into existing health systems; privacy and security compliance; facility placement and utilization reporting; and onboarding, outreach, support, and engagement services. Further, Cognosante provides a flexible approach to telehealth and telemonitoring in support of reducing patient/provider in-person interactions while still supporting COVID-19 or other disease management protocols and data collection.

Facility Compliance—HMS provides expert staff to assess healthcare facilities' compliance with Medicare's Conditions of Participation. These inspections, conducted throughout the installation phase, help to ensure basic levels of quality and safety for all patients, residents, and clients receiving care from Medicare and Medicaid certified healthcare providers and facilities.

This combined team is ready and able to assist states, the military, and health plans as they prepare to increase the nation's hospital capacity.

OUTCOMES

This approach to rapidly deploy hospital facilities from installation to a final readiness assessment will deliver the following benefits and outcomes.

- ▶ A team of experienced companies committed to work together to support the expedited availability of the facility.
- ▶ A clean, reusable hospital facility erected within two to four weeks to support the urgent need resulting from the COVID-19 crisis at approximately one fifth the cost of a comparable 40 room brick and mortar facility in a fraction of the time.
- ▶ Local resources hired to complete the installation of these facilities providing employment opportunities during a time when unemployment is at an all-time high.
- ▶ The facility can be dismantled, reconfigured, re-erected, or relocated for almost any number of applications providing a financial return on investment.
- ▶ Expert staff play an important role throughout the hospital development to ensure compliance with CMS guidelines and standards.
- ▶ A solution integrated with other sources of data relevant to care provision, such as geographic, integrated clinical, social determinant, and medical claims.

CONTACT US TO LEARN MORE

Karen Gage, General Manager, Cognosante LLC
karen.gage@cognosante.com