

How can Hospitals Manage the Financial Impact of COVID-19 pandemic?

Author: Pietro Ferrara, SVP at Craneware

COVID-19 is frightening, it's threatening our health and economy, it's modifying our sense of normalcy, and it's forcing us to change our habits.

How is healthcare reacting?

Healthcare organizations are responding with a heightened sense of urgency. At the time of this writing, many are experiencing peak effect of the infection in their communities, while many more are bracing for impact. Preparing for the COVID-19 pandemic to reach a community, while caring for their patients and staff is a monumental task.

However, surviving the COVID-19 crisis for hospitals and health systems will not depend solely on the quality of clinical care. Understanding the financial impact of public health emergencies, like the COVID-19 pandemic, is imperative. This article discusses the key facets of financial operations healthcare leaders need to think about now.

How is COVID-19 impacting hospital operations?*



Here's what we know now

- **Patient Demographics:** Elective admissions, both surgical and medical, are being postponed. Approximately 25 to 35% of all hospitalized patients with COVID-19 are requiring treatment in an ICU setting and ventilator support. This parameter is difficult to quantify because it is related to the admission criteria; areas with high COVID-19 infection rates will have an increased percentage.
- **Emergency Departments:** EDs represent the first point of contact for all patients that have NOT tested positive for COVID-19. If a patient has previously tested positive, and is currently in quarantine at home, emergency responders are bypassing the ED for direct patient admission.
- **ALOS:** the average length of stay (ALOS) for COVID-19 patients that do not require ventilatory support varies, with reports noting 8-10 days if no complications develop. COVID-19 patients in the ICU requiring ventilators have a minimum stay of 15 days.
- **Supplies:** Personal Protective Equipment (PPE) and disinfectants, like hand sanitizer, are scarce and in high demand. The WHO and in the U.S., the CDC, have been rapidly amending recommendations for healthcare professionals caring for COVID-19 as new information about the virus and global availability of PPE is available.
- **Drugs:** Pharmacotherapy for COVID-19 continues to evolve. Researchers and doctors continue to pursue an effective regimen.

() This information was collected directly from hospital providers and the sole purpose of this data is to provide insights on the potential financial impact (cost/revenue) of COVID-19.*

How does this information impact the financial status of a healthcare organization?

This is a complicated question because there are many unknown variables. Simply put, however, when the peak of the COVID-19 pandemic has passed, hospitals and health systems will face negative margins.



Quantifying the impact of COVID-19 on your organization is imperative.

Immediate clinical response to any pandemic is imperative. However, in times such as these, employing the activity-based costing principles that support a value-based healthcare economy, provides essential information for healthcare leaders. Using this method to understand expenses associated with providing care exposes process inefficiencies, as well as capacity across your organization – information that will help you future-proof your organization.

What are the most important considerations?

It is important to first categorize your patient population by medical condition, and relative volumes, as well as to distinguish between elective (E) and non-elective (non-E) procedures/services for each category. For each of the new groupings of medical condition (E and non-E), it is necessary to understand expected volume case-mix variance through reviewing historical data.





Additionally, you must analyze the variance of relative expenses – direct vs indirect – to understand what could potentially flex down and up.

Lastly, from a resource consumption and cost perspective, consider the skills and training of your employees. Can clinical staff that traditionally manage elective procedures provide patient care in other areas?

How can we breakdown this complex problem?

Hospitals need to be prepared to handle this unprecedented change across their financial statements. On the basis of these considerations it is easy enough to project an effect on Revenue and Cost and on the overall profitability of the hospital.

The major effects can be broadly summarized using the following categories and definitions:

 <p>Volumes Case Mix Variance</p>	An unexpected and unplanned variance in the volume case mix
 <p>Facility, Supplies and Equipment Investments</p>	A sudden surge in the spend on facilities, supplies and ICU equipment
 <p>Labor Resource Variation</p>	A shortage of clinical staff in critical areas and under-utilized staff in procedural and diagnostic areas
 <p>Patient Revenue Shift</p>	Patient revenue risks will shrink, and other revenue streams will shift from payers towards other possible alternative sources, like government funding, pass-through, etc.

Volume Case Mix Variance

What to expect:

Many hospitals are closely reviewing admission criteria during the COVID-19 crisis. The first step involves cancelling elective admissions, which includes surgical procedures and interventional and medical services. In terms of volumes, can we expect a full replacement of elective cases with medical COVID-19 cases (pneumonia cases, etc.)?

The answer is most likely to be 'No'.

The decision to postpone these admissions is for the safety of patients and the community. We expect in some cases, a general decrease of volumes, and in others, a significant change in the case mix, particularly in regions that have experienced the full impact COVID-19 spread.



Actions to consider:

- Qualify and quantify the volume case mix variance in order to identify the medical condition/specialty.
- Analyze the financial impact of what has been cancelled versus what is new in the volume case mix.

Facility, Supplies and Equipment Investment Increase

What to expect:

Many hospitals are modifying their facilities to respond to COVID-19, including adjustments to physical building access, moving ED screening to tents and modifying patient care units (like SNFs and LTACs) to accommodate critical care.

There is an increase in requests for medical equipment nationwide, like ventilators and monitors. Protective supplies, such as masks, gowns, and shields, are in great demand. Guidelines regarding safety measures are continuously updated within short periods of time to not only address new research regarding the virus, but also growing shortages of PPE.

Provided supply vendors do not subscribe to demand/offer gaming, the overall financial impact of the supply category should not be significant.



Actions to consider:

- Qualify and quantify the unplanned investments in order to clearly identify facility investments, equipment, supplies, and other related expenses.
- Analyze overall financial impact.

Labor Resource Variation

What to expect:

Confirmed COVID-19 patients are treated on nursing units such as Med-Surg, SDU, ICU, etc., depending upon the severity of illness; due to the demand for skilled staff, these areas will incur a significant increase in labor expenses.

Additionally, with the change in volume case mix and a noticeable variation in surgical cases, a relevant portion of staff in procedural areas can be temporarily reassigned to other care areas.



Actions to consider:

- Qualify and quantify the unplanned shift of activities and analyze impact on staff. Develop a thoughtful and thorough staffing plan to support the crisis as soon as possible.
- Analyze overall financial impact.

Patient Revenue Shift

What to expect:

Hospitals and patients are making the wise decision to postpone elective procedures, such as orthopedic surgeries, to diminish the risk of COVID-19 spread. As is true for most orthopedical surgeries, like hip or knee replacements, these cases generate a high positive margin. Conversely, COVID-19 cases, which will be the predominant admission in the absence of elective procedures, will generate a medical DRG, such as a simple or complex pneumonia, with a significantly lower reimbursement rate and contribution to overall margin.

As such, the average reimbursement by case will drop. To preserve the bottom line, compensation with some other revenue, like public funding or pass-through, will be imperative.



Actions to consider:

- Qualify and quantify the unplanned revenue mix shift across all payers and respective contracts, as well as the overall variance from expenses.
- Analyze financial impact by payer.



Finally, COVID-19 has created a “payer’s market”. While patients that are not affected by COVID-19 are not benefiting from care, like elective procedures to improve health, they continue to pay their insurance premiums. While hospitals remain open and in some instances are having to respond to the crisis in their communities with less and less of what they need, their revenues through reimbursement are falling. It is our sincere

hope that the healthcare agencies and business that are not burdened by the responsibility to respond on the front line of this pandemic, will step forward to offer as much support to healthcare providers as possible in the coming weeks and months.

If you are not considering resource consumption at a patient level, you will not be able to quantify COVID-19 expenses for your organization. Healthcare leaders must be able to compare COVID-19 related losses with reimbursement and expenses to understand the total impact of this pandemic.

At Craneware it is our mission to impact healthcare profoundly and positively in the United States and around the world. We are committed to Better Outcomes for All.

Craneware Healthcare Intelligence® has the technology to help

you measure how COVID-19 is impacting your organization. Most importantly, together we can develop a strategy to mitigate your risk during this challenging time.

Contact us to learn more: CHI@craneware.com