

CORONAVIRUS



How Smart Hospitals Are Using their Data
in the COVID-19 Pandemic



Introduction

The COVID-19 pandemic has upended hospitals around the world. Emergency departments (EDs) and intensive care units (ICUs) are overrun with patients, while elective procedures and other visits have had to be largely postponed or transferred to telehealth visits.

A hospital's data can be immensely helpful in confronting the challenges posed by COVID-19. In this white paper, we'll examine some of the biggest challenges and how hospitals are addressing them by leveraging their data and creating informative dashboards that can be used by decision-makers across their organizations.

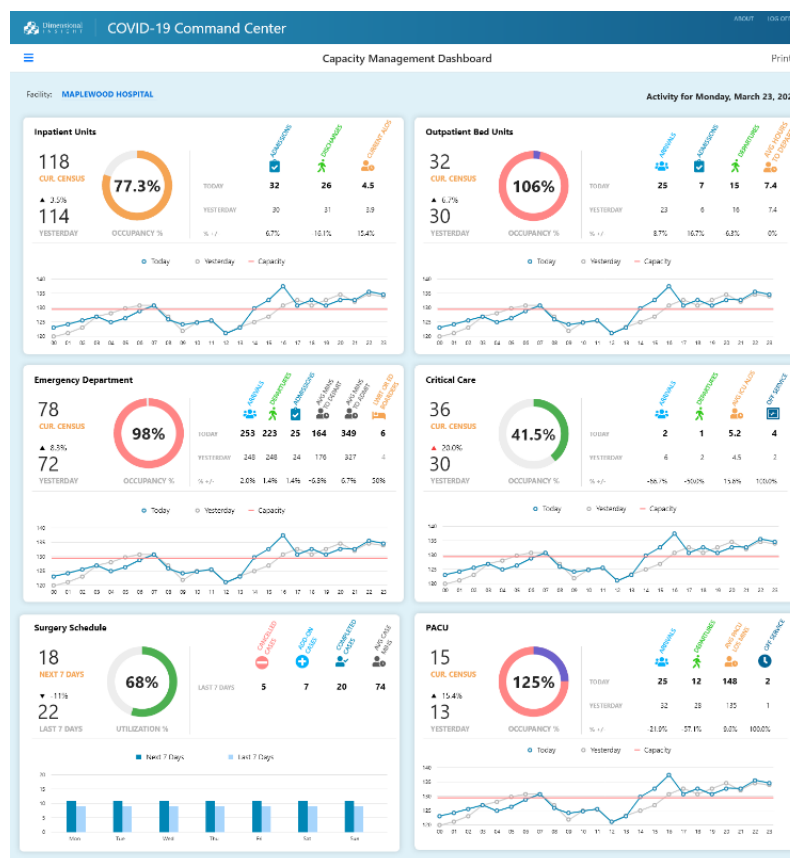
Capacity Management and Active Case Tracking

Hospitals need to quickly understand their COVID-19 patient population, including how many patients are in the facility (and where they are located) and how many are in the ICU. As cases surge, they need to make critical decisions about hospital unit capacity and where to find additional space in their facilities.

In addition, hospitals and health systems must report numbers to the government, and need to have the data easily accessible to avoid unnecessary time spent on reporting.

Some numbers that hospitals have found to be the most valuable for their dashboards are:

- COVID-19 case classification (suspect, low, negative, positive)
- Hospital area classification
- Resource utilization
- COVID-19 diagnostic testing
- Deaths
- ED discharges



Lost Opportunity and Financial Relief

Hospitals have had to cancel elective surgeries and postpone regular doctor's appointments or convert them to telehealth visits. This has had a large impact on hospital finances, to the tune of hundreds of billions of dollars.

As providers ready to get reimbursement from CARES Act Provider Relief Fund, they need to carefully track expenses. The terms and conditions of the act state that no later than 10 days after the end of each calendar quarter, hospitals need to submit a report that contains the total amount of funds received from HHS, the amount of funds that were expended for each project or activity, and the number of jobs that were created or retained by the project or activity.

Some examples of reimbursable expenses include:



- Increased staffing and training
- Personal protective equipment
- Building or retrofitting new ICUs
- Building temporary structures
- Foregone revenue from cancelled procedures

Hospitals that are using dashboards in this capacity are tracking metrics such as:



- Cancelled elective procedures
- Cancelled routine ambulatory office visits
- No-shows
- Rescheduling and appointment backlogs
- Telehealth encounters

Hospitals can also use their dashboards to track data for FEMA labor force provisions:



- Overtime for budgeted employees
- Extra work for second-level supervisors
- Work by unbudgeted employees
- Backfill

They can also track data for the Payroll Protection Program:

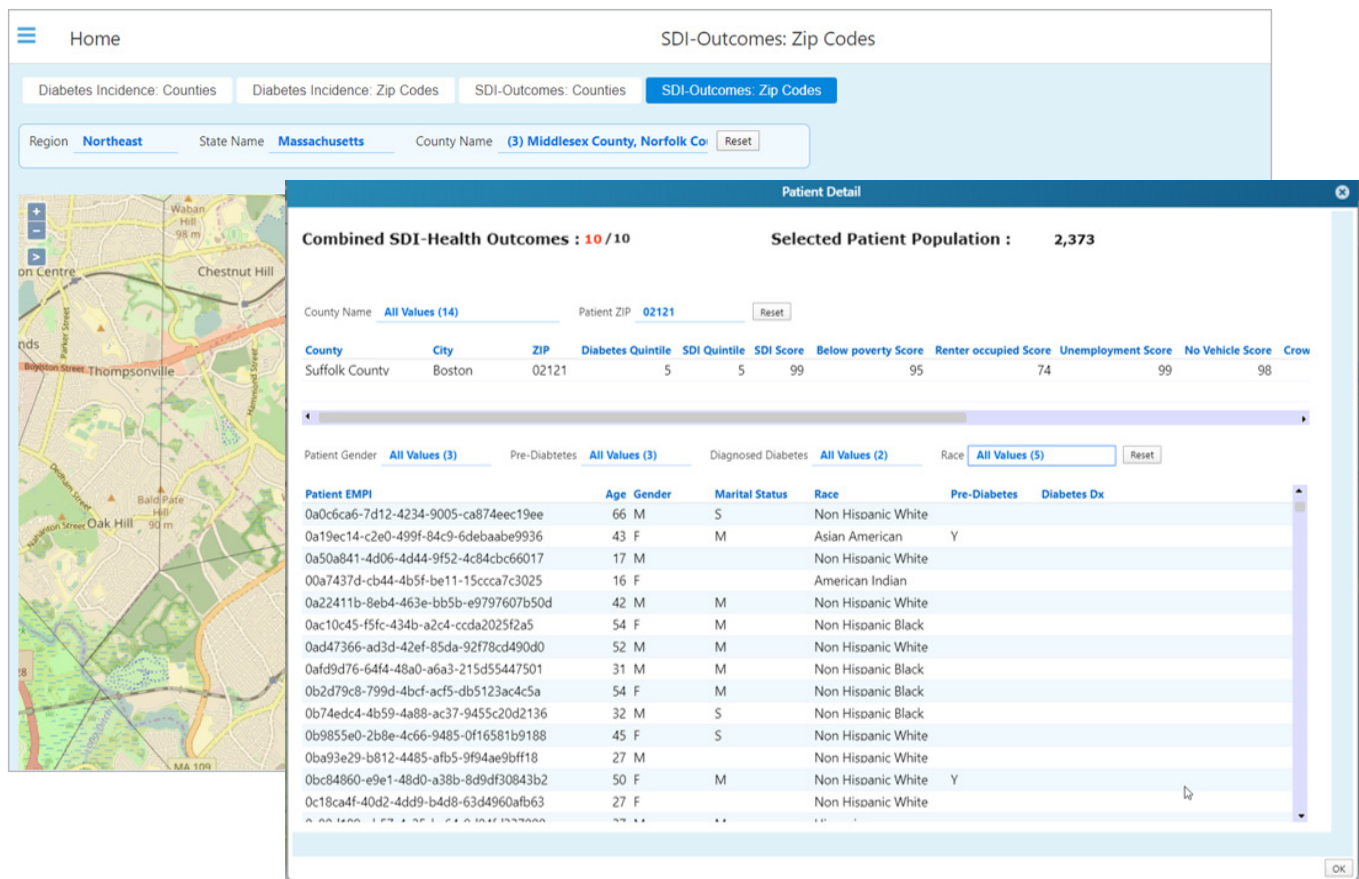


- Salaries, wages, commissions
- Payment for vacation and leave
- Allowance for dismissal
- Group health benefits and insurance premiums
- Retirement benefits
- State and local taxes assessed on compensation

Identifying COVID-19 Infection Patterns

It's important for hospitals and health systems to understand population trends in infections, as knowing where patients are coming from can help with planning efforts.

With analytics, hospitals can create heat maps that show areas that are most affected by COVID-19. These maps can identify clusters of infection down to a granular level. In addition, if providers want to see details on the affected patients, they can often dive down into the details to understand data such as age and status.



Post-Discharge Case Tracking & Analysis

Once patients leave the hospital, it's important for healthcare organizations to track their numbers and outcomes, both for regulatory purposes and to improve the institution's own operations and practices.

The U.S. Centers for Disease Control (CDC) released a set of ICD-10 coding guidelines for hospitals. With these guidelines, hospitals can create analytical measures that they can track and submit for mandated reporting.

Some of these measures would include:

- Confirmed COVID-19 cases
- Associated measures with confirmed cases including ALOS, Discharges, Discharge days, ED admits, ED visits, etc.
- COVID-19 Acute Bronchitis Discharges
- COVID-19 Pneumonia Discharges
- COVID-19 Childbirth or Pregnancy Discharges
- COVID-19 Mortality





Learn more

Dimensional Insight is working with hospitals and health systems around the world to help them manage and gain insight from their COVID-19 data. To learn more, please visit: <https://www.healthcare.dimins.com/covid19/>.

About Dimensional Insight

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