HEALTHCARE INDUSTRY GROUP

# BAROMTER OF THE POST-COVID HEALTHCARE ECONOMY

Update: Q2 & Q3 2021

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ALVAREZ & MARSAL LEADERSHIP. ACTION. RESULTS,

### **Executive Summary**

### INTRODUCTION AND OBJECTIVE

Alvarez & Marsal's (A&M) Healthcare Industry Group (HIG) helps health systems navigate local, state and federal market dynamics. The COVID-19 pandemic, and its accompanying economic and social disruptions, led A&M to investigate the impact of these economic and social forces on the healthcare economy. A&M analyzed the financial and operating performance of the top 25 U.S. not-for-profit health systems, with publicly available datasets. Our previous reports told the story through Q1 2021. In this report, we are aggregating the data and analysis for Q2 and Q3 2021. This timeframe spans the period before the arrival of Omicron, with a relatively quiet summer, picking up with many cases in the South toward the end of August 2021. This report contains executable insights for healthcare leaders, investors and lenders, as they navigate the COVID-19 healthcare environment, based on financial and operating trends of the largest major not-for-profit health systems through Q3 2021.

### **SUMMARY OF TRENDS**

The effects of the COVID-19 pandemic on U.S. not-for-profit hospitals seemed to flatten in the second half of 2021, after more than a year of decreasing surgery volumes and emergency room visits. Operating income was significantly supplemented by federal CARES Act funds but hampered by continuously increasing operating expenses and a lagging growth in net patient revenue; hospitals needed time to recover from the major COVID-19 related dip in volumes, revenue and income of Q2 2020.

Since our last report, Q1 2021, COVID-19 vaccines were rolled out across the country with an FDA Emergency Use Authorization for 12 to 15 year old's in May 2021. By June, nearly two-thirds of U.S. adults had received at least one vaccine dose, but this could not prevent the rise of the Delta variant in Q3 2021. The Delta wave initially hit hard in the southern states where vaccination rates were significantly lower than in other parts of the U.S. In Q3 2021, at an annual rate, emergency visits and the number of patient days increased most in those southern states , while (presumably elective) surgeries saw the greatest decline. This led to the highest rate of change in Net Patient Revenue in hospitals in the South compared to other U.S. regions, even though operating expenses increased only moderately in that part of the country.

As we moved into Q3 2021, revenue and volumes continued to recover to pre-pandemic levels but did not pick up at the rate anticipated, based on pre-pandemic growth. Net Patient Revenue increased significantly in Q3 2021 but would have been even higher (9%) if this revenue had kept growing at the pre-pandemic trend. Similarly, the number of surgeries in Q3 2021 reached pre-pandemic levels but would have been 24% higher if the 2019 growth trends had continued. It is likely that some of the surgeries that were predicted to take place but did not happen in the COVID-19 era were of lower value.

Patient discharges were lower in Q3 2021 than they were pre-pandemic, while the number of patient days increased. This suggests a continued increase of acuity in admitted patients, presumably from sustained COVID-19 volumes since the start of the pandemic. Finally, emergency room visits returned to relatively normal, pre-pandemic levels even though this metric continues to struggle in Q3 2021. This could be a permanent shift in emergency department usage, as patients have found other avenues for care since the pandemic, lowering some of the reflex to "go to the ER".

### By the numbers:

- NET PATIENT REVENUE: decreased 2.5% from 2019 to 2020 but bounced back to 13% above pre-pandemic levels in Q3 2021.
- TOTAL OPERATING EXPENSE: increased 5% from 2019 to 2020 and ended 14% above pre-pandemic levels in Q3 2021.
- OPERATING INCOME: decreased 14% from 2019 to 2020 and returned to pre-pandemic levels in 2021, with large infusions of CARES Act funds in between.
- DISCHARGES: decreased 9% from 2019 to 2020 and were still 4% below pre-pandemic levels in Q3 2021.
- PATIENT DAYS: decreased 5% from 2019 to 2020 and were 5% above pre-pandemic levels in Q3 2021.
- LENGTH OF STAY: increased 6% from 2019 to 2020 and was more than half a day longer in Q3 2021 than before the COVID-19 pandemic.
- SURGERIES: decreased 12% from 2019 to 2020 and remained 5% lower than pre-pandemic levels in Q3 2021.
- EMERGENCY ROOM VISITS: decreased 18% from 2019 to 2020 and remained 3% below pre-pandemic volumes in Q3 2021.

### THE DATA

To better understand the effect of COVID-19 on healthcare providers, A&M created a cross-section of health systems across the country by analyzing the publicly available financial statements of the 25 "largest" not-for-profit health systems in the United States. The initial "sizing" of health systems was defined by the number of hospitals within those health systems. Financial statements were accessed via health system websites and/or websites where bond-related information is reported publicly. The reporting of these financial statements usually occurs between three and six months post quarter-end, creating a lag in the data. However, an alternative data set does not exist in the industry that collectively models all of these health systems. The data time-period analyzed begins at the start of calendar year 2019 to establish a pre-pandemic baseline.

### DEMOGRAPHICS OF THE TOP 25 "LARGEST" NOT-FOR-PROFIT HEALTH SYSTEMS STUDIED

- Out of all 6,090 hospitals in the U.S., 48% (2946) is a non-government, not-for-profit community hospital(1).
- The top 25 largest not-for-profit health systems included in this analysis jointly own more than 1,000 hospitals, representing roughly a third of all non-profit hospitals.
- All U.S. health systems together account for more than \$1T in OpEx (1). This analysis covers roughly one quarter of that.
- <sup>(1)</sup> Source: https://www.aha.org/statistics/fast-facts-us-hospitals, accessed January 21st, 2022. Data from the 2019 AHA Annual Survey. *AHA Hospital Statistics, 2021 Edition*

A&M will continue to generate this report quarterly, to monitor and track trends driving the health system economy leading to unique market dynamics and the continued impact of COVID-19.

### THE STATE OF THE COVID-19 PANDEMIC

The trends described in this report played out against the backdrop of the COVID-19 pandemic. Our current dataset ends after Q3 2021, before Omicron replaced other forms of SARS-CoV-2 as the dominant variant. To summarize:



### Daily cases and new hospital admissions of patients with confirmed COVID-19 in the USA 2019 - 2021



### Q1 2020:

- The first U.S. COVID-19 patient is identified in January, leading to a public health emergency.
- · The WHO declares the COVID-19 pandemic (March) and countries are restricting travel to try to contain the virus
- · Later in March, the first major lockdowns (New York, California) are enforced.

### Q2 2020 - Q3 2020:

- Ongoing lockdowns and surging cases force businesses and schools to close. Hospitals in parts of the U.S. are overwhelmed; COVID-19 becomes the third leading cause of death in the U.S.
- U.S. hospitals lost an estimated \$22.3 billion between March and May due to delays and cancellations of elective surgeries [Sourav KB, et al. The costs of quarantine. Ann Surg 2021: 273(5); 844-9.].
- Phased re-opening in some states leads to more COVID-19 cases.

The Barometer of the Post-COVID Healthcare Economy | Report Updated Through Q3 2021

### Q4 2020:

- A winter surge of the classic COVID-19 virus puts even more emphasis on social distancing and mask wearing.
- The Pfizer and Moderna mRNA vaccines receive Emergency Use Authorization (EUA) from the FDA.

### Q1 2021:

- As the winter surge slowly recedes, variants like the Alpha (British) and Beta (South African) variant turn up.
- While the Pfizer and Moderna vaccines are rolled out, the J&J vaccine receives an EUA as well.

### Q2 2021:

• The spring and early summer of 2021 saw relative calm, on the COVID-19 front in the U.S. as half of all adults received at least one COVID-19 vaccine dose and adolescents became vaccine eligible.

### Q3 2021:

- Seventy percent of the U.S. population and 90% of Americans 65 years and older, have received at least one doses of a COVID-19 vaccine; several companies mandate COVID-19 vaccines for employees.
- In Q2 2021, the Delta variant emerged, causing a surge in cases towards the end of Q3 2021. Delta is more transmissible than the Alpha variant and the classic COVID-19 virus and less susceptible to existing COVID-19 vaccines.
- Importantly, the surge in cases is not distributed evenly over the U.S. Initially the surge hit the South, but towards the end of Q3 2021 and further in Q4 2021, Delta became widespread across other parts of the country. These changes will be reflected in the next iteration of this report.



### Daily Average New Cases by Region

Source: https://www.nytimes.com/interactive/2021/us/covid-cases.html

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### The Healthcare Economy: Detailed Report Updated Through Q3 2021

#### **OBJECTIVE**

Alvarez & Marsal's (A&M) Healthcare Industry Group (HIG) helps health systems navigate local, state and federal market dynamics. The COVID-19 pandemic, and its accompanying economic and social disruptions, led A&M to investigate the impact of these economic and social forces on the healthcare economy. We aim to provide executable insights for healthcare leaders, investors and lenders as they navigate the COVID-19 healthcare environment, based on financial and operating trends of the top 25 U.S. not-for-profit health systems through Q3 2021.

#### **THE DATA**

To better understand the effect of COVID-19 on healthcare providers, A&M analyzed a cross-section of health systems throughout the U.S., using publicly available financial statements of the 25 "largest" not-for-profit health systems. The size of health systems was defined by the number of hospitals within those health systems. Financial statements were accessed via health system websites, and/ or websites where bond-related information is reported publicly. Data were collected from the beginning of calendar year 2019, to establish a pre-pandemic baseline, through Q3 2021. Financial statements are usually reported between three and six months after the end of the quarter, creating a lag in the data. However, there is no alternative data set in our industry that collectively models these health systems. A high-level, blinded summary of the health systems is included in the analysis below:

#	Number of Hospitals	Calendar Year (2019) Net Patient Service Revenue (in 000s)	Calendar Year (2019) Total Operating Revenues (in 000s)	Fiscal Year End
1	145	\$ 24,221,487	\$ 25,823,953	June 30
2	137	\$ 26,744,000	\$ 29,188,000	June 30
3	92	\$ 16,755,992	\$ 19,519,094	June 30
4	52	\$ 8,645,271	\$ 10,646,583	June 30
5	51	\$ 19,883,000	\$ 25,025,000	December 31
6	50	\$ 7,953,806	\$ 8,533,377	December 31
7	46	\$ 11,435,650	\$ 11,892,267	December 31
8	46	\$ 3,602,719	\$ 6,228,977	December 31
9	42	\$ 6,750,656	\$ 7,480,352	December 31
10	40	\$ 9,100,868	\$ 20,609,276	December 31
11	35	\$ 1,830,512	\$ 2,373,539	June 30
12	35	\$ 5,169,927	\$ 5,651,009	June 30
13	30	\$ 7,000,985	\$ 9,426,648	December 31
14	27	\$ 4,627,386	\$ 4,887,899	December 31
15	26	\$ 10,660,969	\$ 12,805,423	December 31
16	24	\$ 11,407,000	\$ 13,304,000	December 31
17	23	\$ 11,604,000	\$ 13,708,000	December 31
18	23	\$ 9,500,259	\$ 12,487,267	December 31
19	23	\$ 5,222,972	\$ 7,934,554	December 31
20	22	\$ 4,184,332	\$ 4,588,466	December 31
21	15	\$ 2,451,945	\$ 2,555,786	June 30
22	10	\$ 8,567,369	\$ 8,994,044	December 31
23	20	\$ 4,123,000	\$ 4,537,000	December 31
24	12	\$ 3,060,470	\$ 3,302,708	December 31
25	12	\$ 4,072,532	\$ 6,753,463	December 31
	1,038	\$ 228,577,107	\$ 278,256,685	

#### NOTE:

1. Not-for-Profit Health Systems with publicly available financial statements are included.

2. The initial "sizing" of health systems was defined by number of hospitals. 3. N = 25.

4. Dollars displayed in 000s.

### DEMOGRAPHICS FOR THE 25 NOT-FOR-PROFIT HEALTH SYSTEMS INCLUDED IN THIS ANALYSIS

Whereas this analysis includes only 25 health systems, it covers a significant part of the U.S. health system because of the size and scale of these organizations.

- Out of all 6,090 hospitals in the U.S., 48% (2,946) are non-government, not-for-profit community hospitals<sup>(1)</sup>.
- The top 25 largest not-for-profit health systems included in this analysis jointly own more than 1,000 hospitals, representing roughly a third of all non-profit hospitals.
- All U.S. health systems together account for more than \$1T in OpEx<sup>(1)</sup>. This analysis covers roughly one quarter of that.
- <sup>(1)</sup> Source: https://www.aha.org/statistics/fast-facts-us-hospitals, accessed January 21st, 2022. Data from the 2019 AHA Annual Survey. *AHA Hospital Statistics, 2021 Edition*

### **PERFORMANCE METRICS**

The metrics reported in publicly available financial statements with the most overlap across the health systems, are detailed below along with their sample size, N (out of the 25 health systems):

- 1. NET PATIENT REVENUE, NPR (in \$ per Q, N = 24) Revenue collected from paid medical bills.
- TOTAL OPERATING EXPENSES (in \$ per Q, N = 24)
   Operating expenses as part of care delivery, incl. salaries/benefits, medical supplies, interest and depreciation on buildings and equipment.
- OPERATING INCOME (in \$ per Q, N = 24)
   Total operating revenue (incl. net patient revenue/NPR, 340B profits, CARES relief funds, grants and contracts) minus Total operating expenses.
- DISCHARGES (patients per quarter, N = 20) Total number of patients released from the hospital in the guarter period.
- PATIENT DAYS (patients per quarter, N = 19)
   Total number of patients (daily census) occupying beds for all days in the guarter period.
- LENGTH OF STAY (average number of days in the quarter, N = 19)
   Average length of an inpatient episode of care from day of admission to discharge in the quarter period (Patient days/Discharges).
- SURGERIES (surgeries per quarter, N = 13)
   Total number of inpatient surgeries, leading to at least one night in the hospital, in the quarter period.

 EMERGENCY DEPARTMENT VISITS (N = 16) Total number of emergency department visits in the guarter period.

### RESULTS

	NET PATIENT REVENUE	Decreased 2.5% from 2019 to 2020 Increased 12% from 2020 to 2021 (both ending Q3) In Q3 2021 13% above pre-pandemic levels (Q3) <sup>1</sup>
Ś	TOTAL OPERATING EXPENSE	Increased 5% from 2019 to 2020 Increased 8% from 2020 to 2021 (both ending Q3) In Q3 2021 14% above pre-pandemic levels (Q3)
	OPERATING INCOME Note: CARES Act Funding included	Decreased 14% from 2019 to 2020 Increased 263% from 2020 to 2021 (both ending Q3) In Q3 2021 2% below pre-pandemic levels (Q4)
	DISCHARGES	Decreased 9% from 2019 to 2020 Increased 2% from 2020 to 2021 (both ending Q3)
	PATIENT DAYS	Decreased 5% from 2019 to 2020 Increased 6% from 2020 to 2021 (both ending Q3)
	LENGTH OF STAY	Increased 6% from 2019 to 2020 Increased 5% from 2020 to 2021 (both ending Q3)
265 265 265 265 265 265 265 265 265 265	SURGERIES	Decreased 12% from 2019 to 2020 Increased 11% from 2020 to 2021 (both ending Q3) In Q3 2021, 5% below pre-pandemic levels (Q4) <sup>2</sup>
പ്പാ	EMERGENCY ROOM VISITS	Decreased 18% from 2019 to 2020 Decreased 1% from 2020 to 2021 (both ending Q3)

<sup>1.</sup> COVID shortfall: 9%

<sup>2.</sup> Without COVID, surgery volumes predicted to be 1/3rd higher

Further details associated with each metric are provided on the following pages.



### Net Patient Revenue (NPR) Accumulated Across Quarters from Q1 2019 Through Q3 2021



### Rate of Change of Total Net Patient Revenue (NPR): 2019 - 2021

- N=24 health systems
   National = nationwide systems
- NPR declined 1%-4% across the board between 2019 and 2020, with the steepest loss for largest health systems.
- 2020 to 2021 annual rate ending in Q3: NPR restored with 9% - 16%.
- Large annual NPR improvement overall (30%-40%) comparing Q2 2021 to the NPR dip in Q2 2020.
- NPR shows regional variation in RoC in most recent quarter for which data are available, with no change in the North. East, whereas the South and West continued to improve.





### Key Insights and Trends: Total Operating Expense

### Total Operating Expense Accumulated Across Quarters from Q1 2019 Through Q3 2021

N = 24 health systems **OPERATING EXPENSE (OPEX)** (names blinded, the band width of each layer represents the operating \$80,000,000 expense of that system) \$70,000,000 OpEx have steadily increased since the start of 2019, in particular over the \$60,000,000 latter part of 2020. The annual OpEx \$50,000,000 increased 5% from 2019 to 2020, and 8% when \$40,000,000 comparing the annual OpEx 2021 ending in Q3, \$30,000,000 to the annual OpEx 2020, \$20,000,000 ending in Q3. If OpEx had been growing at the pre-pandemic tred, \$10,000,000 OpEx would have been 4% above current Q3 2019 Q1 2019 Q2 2019 Q3 2019 Q4 2020 Q1 2020 Q2 2020 Q3 2020 Q4 2021 Q1 2021 Q2 2021 Q3 2021.

### Rate of Change of Total Operating Expense (OpEx): 2019 – 2021

- N-24 health systems
   National = nationwide systems
- OpEx increased 1-11% between 2019 and 2020, with the largest health systems experiencing the smallest increase (1%).
- 2020 to 2021 annual rate ending in Q3: While OpEx increased across the board, spending increases for care delivery by Northeast region health systems lagged compared to other U.S. regions.
- The above observation specifically holds strong comparing Q2 2021 with Q2 2020 (which saw a dip in NPR), with no change in OpEx for the Northeast.
- In the most recent quarter that has data available, OpEx increased between 1%-20% (at an annual rate).

% CHANGE IN OPERATING EXPENSE (OPEX)



### Key Insights and Trends: Operating Income

- N = 24 Health Systems (names blinded, each colored band represents a health system)
- Operating Income = Operating • Revenue (incl. NPR) minus **Operating Expenses**
- NOTE that these data include ٠ CARES Act funding if and where accepted. Not-for-profit health systems in our analysis collectively received \$14.7B in relief funds, mainly recognized by the health systems in 2020. 2021 includes smaller portions.
- Because of the dip in NPR in H1 of • 2020, Operating Income for not-forprofit hospital systems was down 11% in Q2 2020 compared to Q4 2019.
- The 66% increase in Operating Income from Q3 2020 to Q4 2020 is artificial, with CARES funding presumably a large fraction of Total Operating Revenue.
- While CARES funding still plays a • role in quarters following Q4 2020, Operating Income roughly returns to pre-pandemic levels.



### Total Operating Income by Quarter Q1 2019 Through Q3 2021

### Key Insights and Trends: Discharges

### Discharge Volume Across Quarters from Q1 2019 Through Q3 2021

- N = 20 Health Systems (names blinded; the bandwidth of each layer represents the number of discharges from that health system)
- From Q4 2019 to Q2 2020, discharges decreased 19%, but partly recovered in the next quarter to 10% below pre-pandemic levels.
- Discharges decreased 9% between 2019 and 2020.
- Over 2021, the number of discharges gradually improves to a new normal in Q3 2021, although 4% below pre-pandemic levels.

#### NUMBER OF DISCHARGES



### Rate of Change of Total Discharge Volume: 2019 - 2021

- N=20 health systems
   National = nationwide systems.
- Discharges decreased 5-11% between 2019 and 2020, with the largest health systems and the West region experiencing the greatest decreases (11%).
- 2020 to 2021 annual rate ending in Q3: The North and Southeast regions continue to outperform the others with 5% and 7% growth in discharge volume respectively.
- The above observation is also true comparing Q2 2021 to Q2 2020, with the North and Southeast recovering most after the Q2 2020 dip.
- Q3 2021 (at an annual rate) shows an unequal spread of % change in discharge volume over different regions, ranging between +7% and -12%.

### % CHANGE DISCHARGES







### Total Patient Days by Quarter Across Q1 2019 Through Q3 2021

- system). Patient days decreased 15% from Q4 2019 to Q2 2020 and 5% from 2019 to 2020.
- Over the rest of 2020 and 2021, a steady recovery has taken place with similar utilization of beds in Q3 2021 as in Q1 2019.
- The difference in recovery between discharges and patient days suggest a slightly higher acuity in admitted patients.

### Rate of Change of Total Patient Days: 2019 - 2021

- N=19 health systems ٠ National = nationwide systems
- Patient days decreased 1-7% ٠ between 2019 and 2020, with the largest health systems experiencing the most decrease.
- 2020 to 2021 annual rate ending in • Q3: Patient days increased across the board (2%-15%).
- The above observation specifically ٠ holds strong comparing Q2 2021 with Q2 2020, with the two East regions specifically successful in increasing the utilization of beds in their hospitals after the first COVID-19 dip.
- Over the most recent quarter for which data are available (annual rate), patient days increased 23% to 45%, but dipped in the Northeast.

#### % CHANGE PATIENT DAYS



## Key Insights and Trends: Length of Stay



### Length of Stay per Quarter (Average Across Entire Data Set)

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### Key Insights and Trends: Surgeries



### Total Surgery Volume by Quarter Across Q1 2019 Through Q1 2021

- Rate of Change of Total Surgery Volumes: 2019 2021
- N=13 health systems
   National = nationwide systems
- Surgeries decreased 5%-16% across the board between 2019 and 2020, with the Northeast experiencing the smallest decrease.
- 2020 to 2021 annual rate ending in Q3: Surgeries rebounded with 5%-19%.
- The year-on-year growth in Q2 2021 was strong across the board, particularly so in the Northeast (>130%)
- Surgeries came down again in the last quarter for which there are data (Q3 2021 versus Q2 2021, annual rate), except for the Mid-West where the number of surgeries remained unchanged.



### Key Insights And Trends: Emergency Room Visits



### Total Emergency Room Visits by Quarter Across Q1 2019 Through Q3 2021

- Rate of Change of Total Emergency Visits: 2019 2021
- N = 16 health systems •

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that system)

Q3 2021.

- National = nationwide systems Emergency visits decreased 15%-• 19% across the board between 2019 and 2020.
- 2020 to 2021 annual rate ending in Q3: emergency visits continued to decrease 17% in the Mid-West, while staying roughly similar elsewhere.
- The Mid West saw flat visits • comparing Q2 2021 to Q2 2020.
- In the last quarter for which data • are available, emergency visits increased 28% to 75% (annual rate) compared to Q2 2021, a trend that includes the Mid-West.



### Conclusion

The COVID-19 pandemic has had a drastic impact on the economy, particularly on healthcare organizations. CARES Act funding filled a significant operating income gap for nearly all health and hospital systems. That income gap was created by lost or deferred volumes associated with the pandemic that struck in Q1/Q2 of 2020. As we moved into 2021, both revenues and volumes recovered. However, the projected net patient revenue and number of surgeries following 2019 trends fell short, even though it is difficult to be sure about the relevant counterfactual.

It is not clear what the next quarter's data will unveil (Q4 2021, Q1 2022), but the Omicron surge in Q1 2022 and associated care deferrals we saw does not necessarily bode well for future results. A&M will continue to generate this report quarterly to monitor and track trends driving the health system economy and the recovery stemming from the unique market dynamics of 2020 and the continued impact of the pandemic.



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### **ABOUT ALVAREZ & MARSAL**

Companies, investors and government entities around the world turn to Alvarez & Marsal (A&M) for leadership, action and results. Privately held since its founding in 1983, A&M is a leading global professional services firm that provides advisory, business performance improvement and turnaround management services. When conventional approaches are not enough to create transformation and drive change, clients seek our deep expertise and ability to deliver practical solutions to their unique problems.

With over 5,500 people across four continents, we deliver tangible results for corporates, boards, private equity firms, law firms and government agencies facing complex challenges. Our senior leaders, and their teams, leverage A&M's restructuring heritage to help companies act decisively, catapult growth and accelerate results. We are experienced operators, world-class consultants, former regulators and industry authorities with a shared commitment to telling clients what's really needed for turning change into a strategic business asset, managing risk and unlocking value at every stage of growth.

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