Health Care Resiliency

FINAL REPORT

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pennsylvania
DEPARTMENT OF HEALTH

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EXECUTIVE SUMMARY

The impact of COVID-19, coupled with recent hospital closures has created lingering concerns about the overall viability of Pennsylvania's network of hospitals and long-term care facilities. This study was initiated to provide an evaluation of the hospitals and long-term care facilities (including skilled nursing facilities, assisted living facilities, and personal care homes) in Pennsylvania to understand their current financial health and longer-term financial outlook.

Based on available data, through fiscal year 2020 (FY20)[1] for most facilities, average short-term financial resiliency of Pennsylvania hospitals and long-term care facilities has been weakened by the COVID-19 pandemic, but is largely not in an immediate crisis. However, there are a subset of facilities that may require intervention in the short-term to prevent access issues across the state.

In FY20, which includes roughly one fiscal quarter of COVID-19 impact, the following were identified as lower-resiliency[2]:

- 25 hospitals, representing nearly 5K beds (14% of state acute care beds) and 24k jobs
  - **Key drivers:** Low occupancy, no/low system support, unfavorable payer mix, higher debt burden following recent acquisition (varies by hospital)
  - **Geographies most at risk of access issues**: Beaver, Fayette, Fulton, Lawrence, Mercer, and Schuylkill counties

- 82 skilled nursing facilities, representing 10.8k beds (14% of state SNF beds) and 8.3k jobs[3]
  - **Key drivers:** Low occupancy, payer mix, disproportionate CARES funding[4]
  - **Geographies most at risk of access issues:** Northumberland, Carbon, Tioga, and Juniata counties

Additionally, assisted living facilities and personal care homes experienced a 4% decrease in net patient revenue and a 2% increase in operating expenses from FY19 to FY20.

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1. Defined as year ending June 30, 2020 for hospitals, and either year ending June 30, 2020 for SNFs (37% of PA SNFs) or December 31, 2020 (63%)

2. When available, data on FY21 will provide further insight into how facilities coped during the congoing challenges of the COVID-19 environment.

3. Among skilled nursing facilities with reported cost data that were analyzed. See SNF section for further details.

4. CARES funding as mentioned here is a general reference to those funds disbursed by CMS and is identified as a potential hypothesis in this report. Detailed analysis on specific funding amounts to individual facilities was not conducted

INTRODUCTION

Hospitals and long-term care facilities across Pennsylvania have contended with a rapidly changing health care landscape and a dramatic shock to the system in the form of the COVID-19 pandemic. Prior to COVID-19, trends in the health care industry were shaping the operations and finances of providers, including increased adoption of digital technologies, changes in care sites and delivery preferences, increased demand for clinical staff, and shifts in payer mix and payment models.

Pennsylvania's health care landscape has undergone important changes in recent years. In 2015, the state expanded Medicaid coverage, insuring an additional 766k Pennsylvanians. The expansion lowered the state uninsured rate to 6.6%, expanding access to health care. However, in the last five years, the state has also experienced six hospital closures, including the closure of Hahnemann Hospital in North Philadelphia. The majority of Hahnemann's patients were Black or Latino, and more than 50% of patients had public or no insurance, making the hospital's closure particularly concerning from a health equity standpoint. Additionally, hospital acquisitions have been common, with 38 facilities acquired between 2016 and 2020. Acquisition activity was largely driven by four health systems: UPMC, Tower Health, Penn Highlands, and LifePoint.

Against this backdrop, the COVID-19 pandemic demanded rapid response to prevent loss of life and limit second order repercussions (e.g., economic collapse). Non-essential health care services were postponed to relieve capacity demands and protect patients from exposure. In Pennsylvania, elective procedures halted in mid-March, 2020, and still have not recovered to pre-COVID-19 volumes over one year later. At the same time, hospitals saw a decline in provision of essential health care services.[5] Long-term care facilities were also hit hard – nearly one-third of COVID-19 deaths occurred in nursing homes in the first half of 2020.

Pre-COVID-19 sector trends and effects of COVID-19 disruptions will continue to impact facilities over the coming months, especially given the recent uptick in COVID-19 cases due to the Delta variant.

5. At the height of the pandemic, emergency department presentations fell by 43% in the United States.
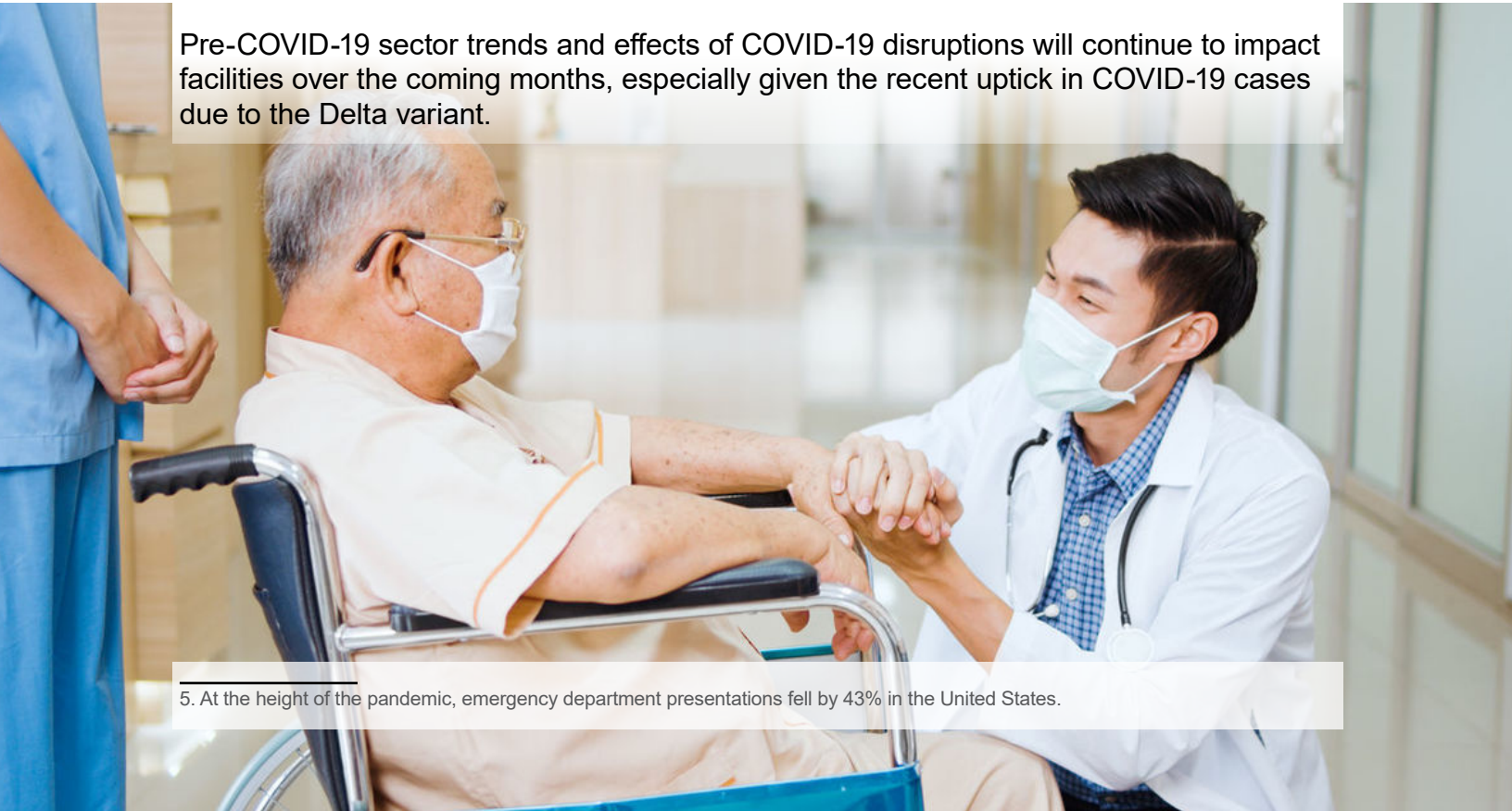
METHODOLOGY

Data

This analysis was conducted using financial, operational, and quality data from Centers for Medicare and Medicaid Services (CMS) cost reports (hospitals, SNFs), Pennsylvania Medicaid cost reports (hospitals, SNFs), public filings such as 10-Ks, non-profit form 990s (ALFs/PCHs), and direct survey submissions from facilities (ALFs/PCHs). Data were collected for FY17 to FY20 for all facility types possible[6].

Methodology

For all facility types, Yale Hospital Financial Score (hereafter referred to as Yale Score) and facility operating margin were used to analyze facility financial resiliency. The Yale Score is a validated[7] , weighted composite of 10 financial ratios, shown to have a high degree of association with proprietary credit ratings.[8] The Yale Score was used as a proxy for long-term financial health because long-term credit ratings are meant to assess ability of a firm to meet debt obligations with a maturity of one year or more.

Operating margin was used to reflect short-term financial health. Operating margin indicates a facility's ability to generate sufficient revenue to meet operating obligations such as payroll and supplies expenses but does not reflect the impact of non-core revenue and expenses. Operating margin has been used in multiple prior studies as an indicator of hospital financial health.[9]

Financial resiliency was analyzed on an individual facility basis where possible. System-level reporting and metrics were employed to triangulate individual facility metrics.[10] In the interest of confidentiality, this report does not name individual facilities or cite their performance statistics. All data are presented at the aggregate level.

To understand the drivers of financial resiliency, and to better articulate impact, average performance was assessed across four dimensions for each facility type:

- *Affiliation:* if a facility operates independently, or is part of a larger hospital system or chain of long-term care facilities

- *Profit model:* if a facility operates as a non-profit, for-profit, or is government run; whether for-profit facilities have private equity backing

- *Geography:* if a facility is in a rural or urban county[11]

- *Size:* facilities broken down by large, medium, and small designations[12]

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6. For hospitals, data from FY18 to FY20 were analyzed, for assisted living facilities and personal care homes, available FY19 and FY20 data were analyzed. Fiscal years defined by facilities and were defined in this analysis by fiscal year end date. Majority of fiscal years for facilities end on 6/30 or 12/31 of a given year.

7. Shown to correlate with credit ratings for hospitals

8. Zinoviev, R., Krumholz, H. M., Ciccarone, R., Antle, R., & Forman, H. P. (2021). Multicentre methodological study to create a publicly available score of hospital financial standing in the USA.

9. E.g., Mosley and DeBehnke (2019) Rural Hospital Sustainability

10. E.g., Moody's ratings for hospital systems, 10-Ks for public hospitals and public long-term care facility chains

11. Based on population density as defined by the Center for Rural Pennsylvania

12. Size: Size designations for hospitals are as follows: small (<100), medium (100-399), large (>400); size definitions for long-term care facilities are as follows – large (>100 beds), medium (25-100 beds), small (<25 beds).

Lower-resiliency definition

Lower financial resiliency is defined throughout this report as having both an operating margin and a Yale Hospital Financial Score less than the 25th percentile of like facilities in peer states (IL, MI, MN, OH, WV) in a given year, unless otherwise specified.[13]

HOSPITALS

Summary

- **The financial health of Pennsylvania's hospitals had fallen from FY18 to FY19,** driven by expense growth (largely payroll, pharmacy, and other expenses), while peer states' hospital performance remained stable[14]

- **In FY20, the financial health of Pennsylvania hospitals declined sharply due to effects stemming from COVID-19** (-9 ppt. statewide operating margin, -4 pts. Yale score), in line with peer states (-8 ppt. operating margin)

- **There were 25 lower-resiliency hospitals in PA,** representing nearly 5k beds, touching 1.8M residents[15] and 24k personnel, and all playing one or more critical patient access roles
    - **Beaver, Fayette, Fulton, Lawrence, Mercer, and Schuylkill counties face patient access risk** due to higher concentration of lower-resiliency beds (>50% of beds)
    - **Beaver, Mercer, and Lawrence** counties present an additional risk because they border one another, creating a larger geographic area at-risk

- **These lower-resiliency facilities can be divided into three archetypes based on their shared characteristics and drivers of underperformance:**
    - **Rural independents** (453 beds), driven by lower occupancy, lack of system support
    - **Facilities in underperforming systems** (1k beds), driven by more unfavorable payer mix, low system support, and higher debt burden, in part due to recent acquisitions
    - **Facilities in well-performing systems** (3k beds), driven by lower occupancy, higher unit expenses, and potentially intentional operation as satellite intake centers

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13. Peer states were identified by the Department of Health based on similar economic and demographic characteristics. IL, MI, MN, OH, WV

14 Other expenses include but are not limited to unreimbursed and uncompensated care cost, capital expenses

15 Estimated based on proportion of lower-resiliency acute care beds compared to total acute care beds across state

Landscape and background

Pennsylvania has higher hospital bed capacity (2.8 vs. 2.3 beds per 1k population) relative to peer states.[16] Its hospitals tend to be larger (227 vs. 207 beds, on average) and more often system-owned (82% vs. 72%), while having a comparable distribution of for-profit vs. not-for-profit facilities (87% non-profit). Private-equity-owned facilities represent only six facilities (4% of statewide hospital beds) and are concentrated in Cambria and Delaware counties.

Pennsylvania hospital system financial health had been falling in the years preceding COVID-19. Though profitability was above that of peer states in FY18 (4% vs. 1% statewide operating margin), it declined from FY18 to FY19 while staying flat in peer states (-3 ppt. decline vs. -0.2 ppt.).[17] This was caused by disproportionate growth in operating expenses (+9%) relative to patient revenues (+6%), driven by personnel, pharmacy, and non-pharmacy supply expenses.

Additionally, although hospital bed utilization was comparable to that of peers in FY19, it had slightly declined from FY18 to FY19 (-0.5 ppt.), particularly in rural hospitals (-1.7 ppt.).[18] The combination of higher beds per capita relative to peer states (+21% across state) and declining utilization may have placed rural hospitals at comparatively greater risk of COVID-19-induced financial strain.

The financial liquidity of Pennsylvania hospitals was below that of peer states in FY18 and declined further by FY19 (24 days cash on hand in FY19 vs. 93 for peers; 54% debt-to-capitalization in FY19 vs. 49% for peers). Acquisitions of historically underperforming facilities from 2014 to 2019 may have also contributed to the relatively lower liquidity of Pennsylvania health systems and hospitals and led to further decline of liquidity from FY18 to FY19. Hospitals acquired between 2014 and 2019 were significantly less profitable and less liquid, on average, compared to the Pennsylvania hospital market overall in 2019 (-7% vs. +2% operating margin, 80% vs. 56% debt-to-capitalization ratio).

In FY20, financial health of hospitals declined sharply in Pennsylvania, in line with peer states.[19] Statewide operating margins declined by ~9 ppt. (1.5 to -7.2%) in Pennsylvania and declined ~8 ppt. (0.7 to -7.7%) in peer states. This was spurred by postponing of elective treatments, and unexpected COVID-19-related expenses. Cash days increased from 24 to 61 days, likely driven by early rounds of relief funding from the Coronavirus Aid, Relief, and Economic Security Act (CARES act) ($2B in total funding, $600M to hospitals)[20]. However, cash days were still lower than in peer states (85 days), current ratios decreased (1.9 to 1.5), and debt ratios increased (56 to 65% debt-to-capitalization), potentially due to increased borrowing at historically low interest rates to cover short-term expenses.

Hospitals that had joined the CMMI Pennsylvania Rural Health Model in the beginning of 2019 saw improved performance from FY19 to FY20, while the performance of other rural hospitals declined. Profitability increased (weighted operating margins of -2.9 to

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16. Going forward in report, "hospitals" refers to set of 153 general acute care hospitals selected for resiliency analysis. See appendix.

17. Ending June 30 for 90%+ of facilities in PA

18. Calculated as the occupancy of hospital adult & pediatric beds, swing beds, ICU, HMO, and nursery, excluding SNF, HHA, ASC, and hospice units (CMS 2552-10, worksheet S-3, line 14)

19. FY20 ending June 30, 2020

20. CARES funding as mentioned here is a general reference to those funds disbursed by CMS and is identified as a potential hypothesis in this report. Detailed analysis on specific funding amounts to individual facilities was not conducted

+1.8% vs. +4.8 to -1.0% for other rural hospitals from FY18 FY19) and Yale Scores improved (29 to 46 pts. vs. 53 to 51 pts for other rural hospitals). Although the Rural Health Model provides for a fixed revenue regardless of patient volume – which can provide some protection against shocks such as COVID-19 – this could reduce the incentive for hospitals in the Model to adjust expenses in line with revenue as tightly as those not in the Model.

Figure 1 | Hospital profitability, FY18 to FY20
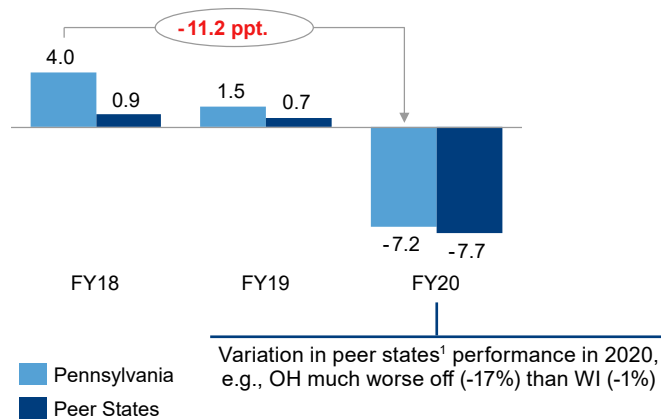
Average statewide operating margin (%)

Variation in peer states[1] performance in 2020, e.g., OH much worse off (-17%) than WI (-1%)

■ Pennsylvania
■ Peer States

Figure 2 | Hospital liquidity, FY18 to FY20

Average days cash on hand and debt-to-capitalization (%)

Metric	FY18	FY19	FY20
Cash days – PA	33	24	61
Cash days – Peer states	97	93	85
Debt/cap. (%) – PA	53	54	65
Debt/cap. (%) – Peer states	45	49	60

1. Operating margin excludes all investment and other sources of revenue and expenses; 2. Comparable states include MN, WI, MI, IL, OH; 3. Neighboring states include NY, NJ, MD, OH, WV (DE excluded due to smaller size and limited border with PA);
Source: American Hospital Association (89% of hospitals shown; certain outliers and hospitals not present in all years, e.g., due to closures, removed for consistency), PA DOH

Financial resiliency

Lower-resiliency facilities

From FY18 to FY19, an increasing number of hospitals and beds across the state were identified as lower-resiliency. The number of lower-resiliency hospitals increased from 14 to 19, total beds in lower-resiliency facilities increased from 1.6k to 2.5k (5 to 7% of state acute care beds).

Hospital performance was evaluated over the same period along four dimensions: system affiliation, profit model, geography, and size.

- *System affiliation:* **Independent facilities** outperformed system-owned facilities from FY18 to FY19 in terms of weighted operating margin (3.3% vs. 1.5% margin), while Yale Scores and probability of being lower-resiliency were comparable between both segments. This trend persisted in FY20 through the advent of COVID-19.

- *Profit model:* **Not-for-profit facilities** outperformed for-profit facilities from FY18 to FY19 in terms of Yale Scores (52 pts. vs. 45 pts. for for-profit facilities in FY19) and weighted operating margin (1.6% vs. 1% margin). However, from FY19 to FY20, not-for-profit facilities experienced a worse decline than for-profits, finishing weaker in profitability (-6.2% vs. -4.6% margin) but stronger in average Yale Score (48 pts. vs. 45 pts), though both segments had a comparable probability of being lower-resiliency.

- *Geography:* The performance of **urban and rural facilities converged** from FY18 to FY19. Urban facilities started stronger but trended downward in terms of Yale

Score (55 to 52 pts.) and operating margin (5 to 1% margin), while rural facilities started lower but trended upward (47 to 50 pts. Yale Score; 1 to 3% weighted operating margin). In FY19 to FY20, rural facilities outperformed urban facilities, finishing ahead on Yale Score (50 vs. 46 pts) and profitability (-2.1% vs. -7.1% weighted operating margin). Although hospitals that had joined the Rural Health Model before FY20 saw improved performance (+4.7 ppt. weighted operating margin compared to -5.8 ppt. for other rural hospitals), they represent only 8% of rural hospitals and thus did not significantly alter the trajectory of the segment.

- *Size:* **Large facilities** outperformed medium and small-sized facilities from FY18 to FY19.[21] They had a lower probability of being lower-resiliency compared to medium and small-sized facilities (4% vs. 22% and 13% respectively) and higher Yale Scores (59 pts. for large facilities vs. 50 and 48 pts among medium and small facilities in FY19), though they were less profitable (1.5% vs. 1.5% and 2.7% operating margin for medium and small facilities). This trend held in FY20, however small facilities saw the largest improvement in performance (+4 pts. Yale Score, -5.7 ppt. margin change), followed by large (-5.1 pts. Yale Score, -7.1 ppt. margin change) and medium-sized facilities (-7.4 pts. Yale Score, -8.7 ppt. margin change).

FY20 Resiliency

In FY20, a greater share of Pennsylvania hospital beds was operated by lower-resiliency facilities than in peer states (14% vs. 9%), primarily driven by lower relative liquidity.[22] The average Yale Score of Pennsylvania facilities was lower than in peer states (48 vs. 51 pts.), comparable to a difference of one credit rating grade (Ba1 vs. Baa3).

25 lower-resiliency hospitals were identified across the state, representing 4.9k beds (14% of state) and touching 1.8M Pennsylvanians and 25k facility personnel in total.[23] Compared to FY19, this set represented an additional 2.5k beds (7% of state), 920k residents, and 14k personnel.

All 25 lower-resiliency hospitals identified serve one or more critical patient access roles in their community, including:

- Providing a critical service as a rural hospital, such as a cardiac catherization lab (5 facilities), designated trauma center (1 facility), or medical or surgical ICU unit (all 10 rural facilities)

- Operating more than 30% of the total acute care beds in their county (9 facilities)

- Operating in a county with high population growth – indicating future demand and short-term need for improved resiliency (6 facilities) – or population decline (4 facilities), indicating continued lower-resiliency to future volume decline[24]

- Serving as a Critical Access Hospital (2 facilities)

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21. AHA definitions for size coding used: large-sized facilities (400+ beds), medium-sized facilities (100-399 beds), small-sized facilities (<99 beds)

22. FY20 ending June 30, 2020

23. Percentage of state beds refers to percentage of general acute care beds

24 Chester, Montgomery, and Philadelphia counties in top-10 of PA counties by population growth (avg. +0.5% per year) and have lower-resiliency hospitals; Mercer and Lawrence in bottom-10 of PA counties by population growth (avg. 0.8% population decline per year) and have lower-resiliency hospitals

Figure 3 | Lower-resiliency hospitals and at-risk counties, FY20

Lower-resiliency hospitals and counties by % lower-resiliency beds
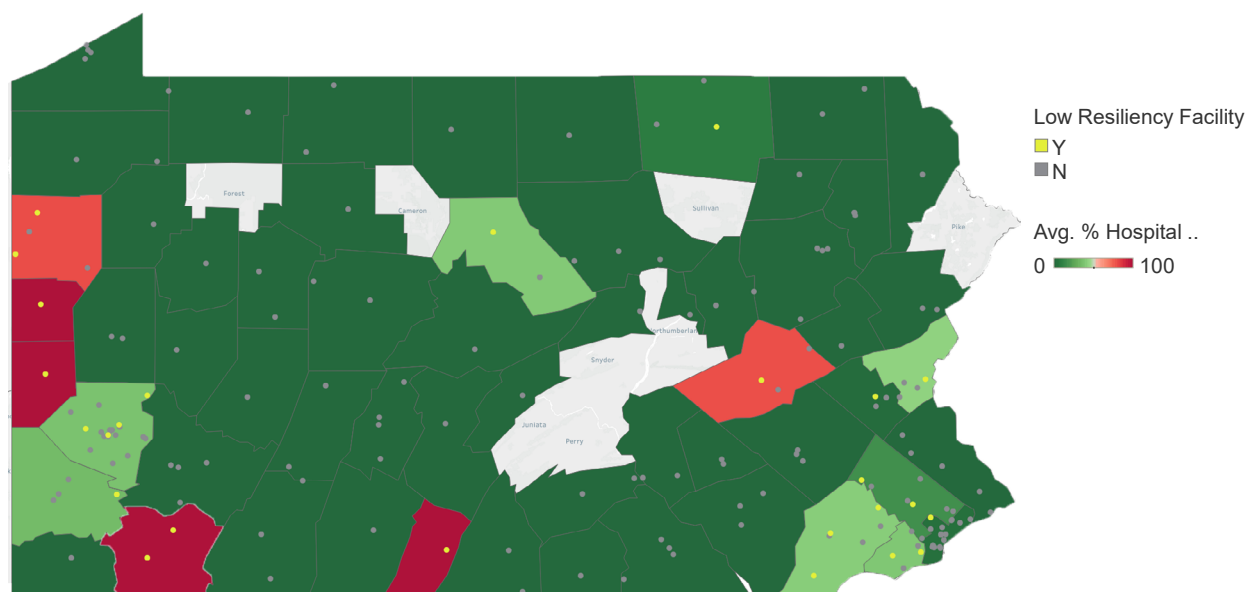
Lower-resiliency facilities can be grouped into three archetypes based on their shared characteristics, performance drivers, and potential approaches to improve resiliency:

1. **Rural independents** (non-system-affiliated facilities; 5 facilities, 453 total beds)
2. **Facilities within underperforming systems** (rated Highly Speculative or lower)[25] (7 facilities, 1k beds)
3. **Facilities within well-performing systems** (rated above Highly Speculative) (13 facilities, 3.4k beds)

1. Rural independents

Although this archetype of facilities (5) is the smallest in total beds (443), these hospitals potentially serve the most critical roles in their communities due to their more remote locations. All facilities are in counties with a higher concentration of lower-resiliency facilities (30%+ of total acute care beds in lower-resiliency facilities). All provide some form of specialized patient service, such as cardiac catheterization. None of the facilities that joined the Rural Health Model before FY20 were lower-resiliency; three out of the five facilities indicated here have since joined, potentially stabilizing their ongoing performance. Roughly 2.3k jobs are associated with this group.

Rural independents performed significantly below state averages in FY20, showing:

*   **Lower profitability** (weighted operating margin of -21% vs. -7% across state in FY20), potentially driven by **lower hospital bed occupancy rates** (33% vs. 49% across state[26])

*   **Higher debt (**111% average debt-to-capitalization ratio vs. 65% across state), potentially driven by **lack of system financial and operational support**, such as system-wide PPE and labor pooling, tactics used to reduce unit costs in system-owned facilities

25 Defined as systems with Moody's (or equivalent) credit ratings of B1 or lower

26. Hospital bed occupancy

2. Facilities within underperforming systems (rated Highly Speculative or lower)

All facilities in this archetype were acquired in 2016 to 2017 following historically below-average financial performance in the years leading up to their acquisition. Combined with the lower credit ratings of their parent health systems, it is possible that the primary driver of lower-resiliency in these facilities was insufficient time post-acquisition to return facilities to financial and operational health. Facilities in this group represent 1k beds and 5k jobs and all provide ICU services, with most (4/7) also providing cardiac catheterization services. Although these facilities had system support, the underperformance of their parent health systems likely reduced its benefits relative to facilities in well-performing systems.

These facilities performed significantly below state averages in FY20, showing:

- **Lower profitability** (-45% weighted operating margin vs. -7% in FY20), driven by **disproportionately lower unit revenues**[27] (-37% vs. state) relative to unit expenses (-14%),
  - Potentially caused by **more unfavorable payer mix** (42% average Medicaid + Medicare vs. 34% across state[28]).

- **Lower liquidity,** with less cash (-2 cash days on hand vs. 61 across state) and higher levels of debt (96% average debt-to-capitalization ratio vs. 65% across state)
  - Possibly caused by taking on **additional debt post-acquisition**, e.g., by making advance payments ahead of volume increases typical of acquired facilities.

3. Facilities within well-performing systems (rated above Highly Speculative)

This set of facilities (13) represents the largest lower-resiliency archetype, impacting 3.4k beds and 18k jobs. Compared with those in the second archetype, these facilities are operated by health systems with higher credit ratings (above Highly Speculative). Nearly all (12/13) facilities provide ICU services, and most (10/13) provide either cardiac catheterization and cardiac thoracic surgery or are teaching hospitals.

These facilities performed significantly below state averages in FY20, showing:

- **Lower profitability** (-24% weighted operating margin vs. -7% across state in FY20), driven by **disproportionately higher unit expenses** (+14% vs. state)
  - Potentially caused by l**ower occupancy** (42% vs. 49% across state)

- **Lower liquidity**, including **lower cash on hand** (12 cash days vs. 61 across state), and **higher debt** (116% debt-to-capitalization vs. 62% across state)

Despite exhibiting lower-resiliency on an individual basis, these facilities may be operating as intended as satellite intake centers for larger, tertiary care hospitals within the system. As a result, this archetype may pose the lowest patient risk.

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27. Net patient revenues per CMI- and outpatient-adjusted patient day
28. Share of hospital inpatient days across Medicare and Medicaid relative to all patients

SKILLED NURSING FACILITIES (SNFs)

Summary

- **Pennsylvania's skilled nursing industry has higher per-capita bed capacity** (+20%) and **annual spending** (+41%) than peer states

- **Pennsylvania SNFs were above those in peer states in liquidity,** but were slightly below in profitability by FY19 (-1% vs. -0.4% median operating margin), though were trending upward

- **From FY18-19, chain-owned, for-profit, rural, and small facilities were higher risk** of being lower-resiliency

- **CARES funding** and **emergency stop-gap measures** mitigated the near-term impact of COVID-19. However, 82 facilities were lower-resiliency in FY20, representing 10.8k beds and 8.3k jobs

  ◦ **Northumberland, Carbon, Tioga, and Juniata** counties pose potential access risk due to higher concentrations of lower-resiliency SNFs (>50% of county beds in lower-resiliency facilities)

  ◦ **Tioga** may pose additional risk due to its facilities being farther away from other nearby facilities, on average

- COVID-19 impacted **chain, non-profit/ government, medium / large** facilities more severely.

  ◦ Facilities with **favorable historical payer mix** (e.g., more post-acute skilled rehab patients, fewer Medicaid patients) may feel COVID-19 impacts more severely than peers

Landscape and Background

Pennsylvania has nearly 700 SNFs[29], representing 85K beds. Pennsylvania's skilled nursing infrastructure is more robust than in many states in terms of bed capacity, number of facilities, and annual spending on skilled nursing, Pennsylvania exceeds most peer states and the national average.[30] On average, the state's facilities are larger and operate at higher occupancy rates than peers (124 vs. 79 to 130 beds, and 86% vs. 73 to 86% occupancy). Per-capita spending on skilled nursing exceeds national averages by 62% ($774 vs. $479), and nearest peer Ohio ($605) by 28%.

While two-thirds of SNFs are found in urban counties (68%), proportional to the population, the Commonwealth is in fact more lightly-resourced in these areas (urban: 71% of beds serve 73% of residents; rural: 32% of beds serve 26% of residents). In FY19, seven rural counties and 162,000 residents were served by just one SNF.[31]

Overall, the financial performance of Pennsylvania's SNFs improved slightly from FY18

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29. 645 Pennsylvania SNFs with distinct CMS Certification Numbers (CCNs) submitted a CMS Cost Report in 2019. The state has approximately 50 additional SNFs without distinct a CCN, which include transitional care units (TCUs) and other facilities collocated in acute care centers, or for which Cost Reports could not be obtained.

30. Peer states include Michigan, Minnesota, Illinois, Ohio, and Wisconsin.

31. Cameron, Clinton, Elk, Forest, Potter, Snyder, and Wyoming counties had 1 SNF with a distinct CMS Certification Number in 2019.

to FY19, in line with peer states (-1.9 to -1% median operating margin vs. -1.1 to -0.3% for peer states[32]). Over this period, median operating margins were at or below 0%, indicating that at least half of the state's SNFs spend more on providing patient care than they produce in core revenue. This may render them dependent on other income (e.g., fundraising) or support from a parent chain, and weaken their overall resilience. Although impacted by COVID-19, Pennsylvania SNFs were buoyed by federal relief funding, and on averaged, fared better than peer states in FY20.

Figure 4 | SNF profitability, FY18 to FY20

Median operating margin (%)
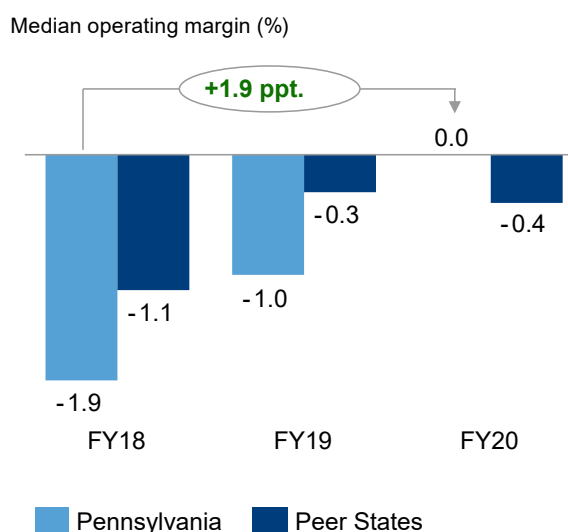
Financial resiliency

Lower-resiliency facilities

From FY18 to FY19, prior to COVID-19, 15% of SNFs in Pennsylvania were lower-resiliency (95 facilities; 10.8k beds, 8.3k jobs across 42 counties).[33] In FY20, the state had 82 lower-resiliency SNFs (14% of facilities, 11.2k beds, 8.6k jobs across 35 counties).[34]

In FY19, *chain, for-profit, rural,* and *small* SNFs were more likely to be lower-resiliency than non-profit and government, urban, and medium and large facilities.

However, preliminary FY20 data suggest that COVID-19 may have impacted *chain, non-profit, medium,* and *large* facilities more severely, such that, by the end of FY20, these latter types were more likely to be lower-resiliency. Each type is examined in detail.

- **Chain affiliation:** Chain-owned SNFs comprised half of the state's facilities in FY19 (51%). They were more likely to be lower-resiliency facilities (19% vs. 11% of facilities) and less liquid but more profitable than independents (18 vs. 39 days cash on hand; 1.4% vs. 0.1% weighted operating margin), indicating their resilience is constrained more by debt obligations than by their ability to generate profits. As in FY19, chain facilities were also more likely to be lower-resiliency in FY20 (18% vs. 8%). This suggests that facilities with larger debt obligations may be more impacted by COVID-19.

- **Profit model:** For-profit SNFs underperformed relative to non-profit SNFs in FY19.

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32. Median values used for SNF data given greater prevalence of outliers compared to hospital data

33. 645 Pennsylvania SNFs with a distinct CCN filed a FY19 CMS Cost Report, of which 631 had sufficient data to calculate both Yale Score and annual operating margin, the 2 components of financial resilience. Cost Reports are not audited financial statements, which allows the possibility of incomplete or erroneous data (e.g., inverted signs for negative values, errant keystrokes, etc.). After the data was cleaned and outlier values removed, facilities with 5 or more valid Yale Score metrics (of 10 possible) were included in each year's analysis.

34. 604 Pennsylvania SNFs submitted an FY20 MA-11 Cost Report to DHS as of July 2021, of which 599 had sufficient data to calculate both Yale Score and annual operating margin, the 2 components of financial resilience. Of these 599 reports, 222 (37%) covered a 12-month period ending on or before June 30, 2020, and so captured only the first 3 months of COVID-19 impact. The remaining 377 reports covered a 12-month period through November or December 2020, and so captured a greater extent of COVID-19 impact. In total, 599 facilities with 5 or more valid Yale Score metrics were included in the final analysis.

56% of Pennsylvania SNFs were for-profit in FY19, and they were more likely to be lower-resiliency (18% vs. 11% for non-profits). In FY20, however, for-profit SNFs outperformed non-profit ones: for-profits were more profitable (0.4% vs. -2.6% weighted operating margin), and more liquid (30 vs. 26 days cash on hand). Despite being larger (+9% more beds, on average) and maintaining similar occupancy to non-profits, for-profits realize 40% less revenue per bed, primarily driven by more unfavorable payer mix (69% Medicaid inpatient days vs. 48% for non-profits). The ability of for-profit SNFs to better contend with revenue reductions, as with COVID-19, despite having an unfavorable payer mix suggests that having a favorable payer mix may make SNFs more vulnerable to unexpected disruptions, such as the loss of acute rehab patients due to the re-suspension of elective surgeries in the event of Delta-variant resurgence. It should be noted that government-run facilities were more likely than both non-profits and for-profits to be lower-resiliency in FY20, however represent only 3% of facilities across the state (18 of 599).

- *Geography:* Rural SNF facilities slightly underperformed relative to urban SNFs in FY19, with comparable profitability and liquidity but a higher likelihood to be lower-resiliency (17% vs. 14%). Carbon, Jefferson, Somerset, Clearfield, Tioga, and Juniata counties (324k total residents) saw high concentrations of lower-resiliency facilities (>50% of county beds) in FY19. In FY20, rural facilities overtook urban ones, with higher profitability (1% vs. -1.6% operating margin), liquidity (67 vs. 48 days cash on hand) and comparable rates of lower-resiliency. Northumberland joined the set of counties with a majority of lower-resiliency beds (58%), but Jefferson, Somerset, and Clearfield showed stronger resilience and left the set. Potential drivers of the improved trajectory of rural SNFs between FY19 to FY20 include sharing in CARES funding designated to critical access hospitals (if co-located) and benefiting disproportionately from CARES funding, which favored smaller facilities.[35]

- *Size:* Small facilities (>100 certified beds) comprised 34% of all SNFs in FY19 and were more likely to be lower-resiliency (18% vs. 14% for medium facilities). No large sites (400+ beds) were lower-resiliency in FY19. While small facilities were more liquid and had better average operating margins (35 vs. 25 average days cash on hand; 6.3% vs. -1.4% weighted average operating margin), they carried significantly more liabilities on their balance sheets, against a lower overall base of net patient revenue ($30.9 vs. $17.8M average liabilities; $13.0 vs. $16.4M average annual NPR). FY20 data shows that small facilities made relative gains in financial resilience during COVID-19 compared to baseline, while medium and large facilities have experienced relative losses. Small facilities were least likely to be lower-resiliency by the end of FY20 (11% vs. 15% and 22% of medium and large facilities). CARES funding effectively provided greater financial uplift to small facilities. While operational scale has its benefits during periods of financial turbulence, COVID-19 has not exacerbated the baseline underperformance of small SNFs, and CARES funding proved an effective, short-term stopgap measure.

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35. The initial $255 million tranche of CARES funding disbursed in May 2020 came in the form of a fixed, $50,000 per facility payment plus a variable $2,500 per bed supplement. Rural SNFs tend to be smaller in size so the grant structure may have benefitted them more substantially compared to urban SNFs.

Figure 5 | Lower-resiliency SNFs and at-risk counties, FY20

Lower-resiliency SNFs and counties by % lower-resiliency beds
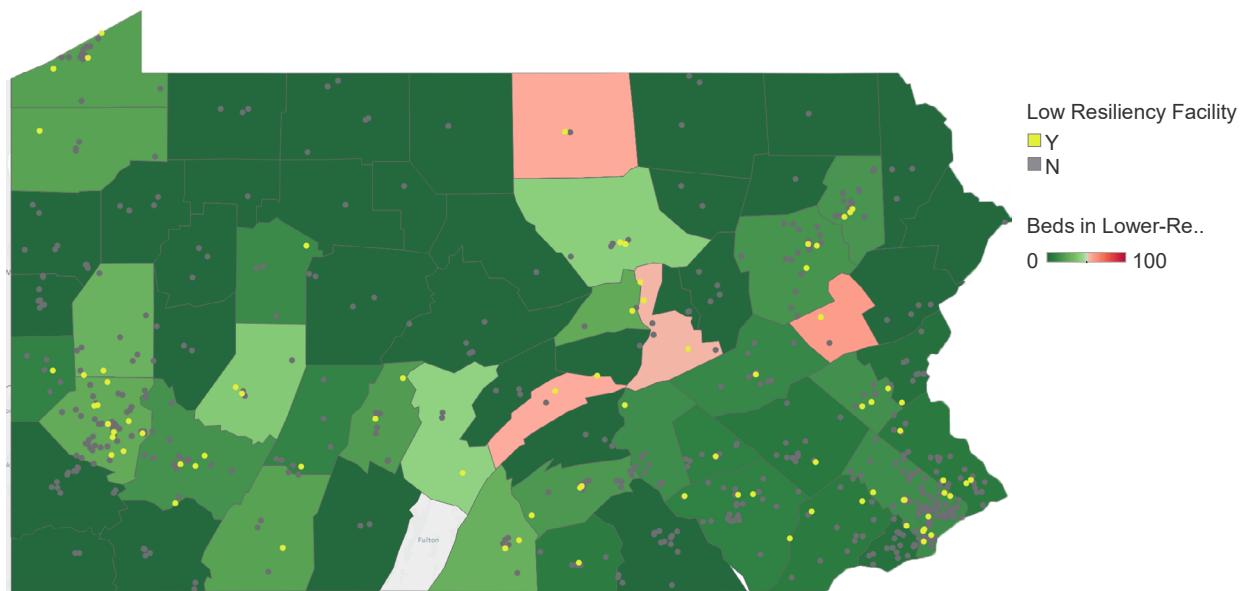
Trajectory from FY19 to FY20

Sub-group analysis of the 37% of SNFs with reported data (222 in total) reporting FY20 financials ending June 30, 2020, indicates a short-term improvement in financial resilience early in the pandemic due the favorable impact of CARES funding on balance sheets ($2B in funding; $250M to SNFs in PA). In the near term, these funds dramatically improved facilities' liquidity metrics (e.g., 53 days cash on hand in June 2020 vs. 28 days in FY19) and Yale Score (53 pts. in June 2020 vs. 49 pts. in FY19). However, subgroup analysis of the 67% of SNFs reporting FY20 financials ending December 31st shows that by the end of the calendar year, financial strain increased.

Of the lower-resiliency facilities in FY20, 60% were lower-resiliency in FY19 while 40% were "newly" lower-resiliency. Non-profit, urban, and medium-sized facilities were most likely to be newly lower-resiliency in FY20, suggesting that these facility types were hardest hit by effects stemming from COVID-19. Most notably, non-profits comprised 35% of facilities, but 47% of newly lower-resiliency sites.

Of the facilities that "escaped" lower financial resilience between FY19 and FY20, 81% were for-profits, with a lower average NPR per bed of $84,000 and a higher average proportion of Medicaid patients (78%) in FY19 (vs. $94,000 and 68% for facilities that experienced decrease in financial resiliency). This strongly suggests that facilities with favorable historical payer mix (e.g., more post-acute skilled rehab patients, fewer Medicaid patients) may feel the impact of COVID-19 more severely than peers and struggle to operate as efficiently on reduced inpatient census as facilities that historically had less favorable margins.

THE ROLE OF PRIVATE EQUITY IN HEALTHCARE

Summary

Approximately 10% of SNFs and 5% of hospitals in Pennsylvania are backed by private equity funds.[36] [37] Overall, PE-backed SNFs and hospitals were less likely to be lower-resiliency compared to their non-PE-backed counterparts in both FY19 and FY20 and achieved similar care quality ratings.[38]

Background

Academic literature has mixed conclusions on the impact of PE investment on patient and outcomes and financial performance. Among hospitals, PE involvement has been associated with higher operating margins, higher charge to cost ratios, and improved quality measures in some facilities.[39] [40] Such findings suggest PE firms do not always target distressed or underperforming facilities and may instead acquire well-performing assets that have a clear pathway to increased profitability. However, researchers at the University of Pennsylvania found an increase in 90-day mortality, higher costs of care, increase in antipsychotic drug administration, and decline in staffing in PE-backed SNFs.[41] In contrast, a cross-sectional study by Braun et. al conducted during COVID-19 found that PE-backed SNFs did not have higher rates of mortality or rehospitalization.[42]

Methodology

PE involvement at the chain level was identified through press reports, financial statements (e.g., 10-Ks), and company websites. In addition, Three proprietary databases were consulted to identify all health care-related M&A activity in Pennsylvania between 2005 and 2021.[43]

Findings

As prior academic work suggests, PE-backing appears to have a mixed impact on SNFs in Pennsylvania.[44] On average, in FY19, Pennsylvania's PE-backed SNFs had higher operating margins and occupancy rates than non-PE facilities.[45] CMS 5-Star quality ratings were slightly higher in PE-backed facilities, while 30-day all-cause readmission rates were the same.[46] PPD hours were lower in PE-backed facilities (3.55 vs. 3.77 average PPD hours). PE-backed SNFs were less likely to be lower-resiliency in FY19 and FY20 accounting for ~10% of facilities but 5-8% of lower-resiliency sites.

These findings align with academic research suggesting PE firms target already profitable facilities while focusing on rapidly improving bottom line profitability. While PE firms may seek to increase profitability by reducing labor expense (among other actions) the data indicate that, in FY19, PE-backed facilities did not vary significantly in major safety and quality outcomes.

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36. Maybe underestimation; public disclosure of PE backing is not required and there are few comprehensive sources documenting M&A

37. This finding is in line with the conclusions of several academic articles and a June, 2021 MedPAC report that estimated the national rate of PE-backing for SNFs and hospitals as 11% and 4%, respectively.

38. 15% of non-PE-backed SNFs were lower-resiliency across FY19 and FY20 compared to 11% of PE-backed SNFs. No PE-backed hospitals were lower-resiliency across FY19 and FY20. Care quality ratings as of CY2019.

39. Bruch JD, Gondi S, Song Z. Changes in Hospital Income, Use, and Quality Associated With Private Equity Acquisition. JAMA Intern Med. 2020; 180.

40. Offodile II et al. "Private Equity Investments in Health Care: An Overview of Hospital and Health System Leveraged Buyouts, 2003–17: Health Affairs Journal." Health Affairs, 1 May 2021.

41. Gupta, A., Howell, S., Yannelis, C., & Gupta, A. (2020). Does private equity investment in Health care benefit patients? Evidence from nursing homes. SSRN Electronic Journal.

42. Braun RT, Yun H, Casalino LP, et al. Comparative Performance of Private Equity–Owned US Nursing Homes During the COVID-19 Pandemic. JAMA Netw Open. 2020; 3.

43. PitchBook, Prequin, and Mergermarket

44. A sample size of 7 prevents drawing conclusions about PE-backed hospitals in the state.

45. 9.9 vs. -0.4% weighted average operating margin; 90% vs. 95% average occupancy

46. average 3.12 vs. 3.04

ASSISTED LIVING FACILITIES / PERSONAL CARE HOMES (ALF/PCHS)

As of 2019, Pennsylvania had ~1200 personal care homes and assisted living facilities in operation. These facilities accounted for ~70K total beds (65K of these beds are classified as personal care homes). The ALF/PCH bed density for Pennsylvania is 5.5 per 1k residents. Occupancy rate hit a recent-year peak in 2019, at 67%, indicating excess bed capacity across the state.

Many of these facilities operate only personal care or assisted living beds. An estimated 40% contain SNF beds in addition to ALF/PCH beds on the same campus. Many facilities offer other services, such as independent living, memory care, hospice, etc.. As with SNFs, most facilities are operated as for-profit facilities. 33% are chain owned, while 67% are independently owned. Unlike SNFs, these facilities are majority private pay.

As with other health care facilities, the financials of ALF/PCH facilities were hard hit by COVID-19. On average, surveyed ALF/PCHs reported a net patient revenue decline of 4% from FY19 to FY20. This drop in revenue was precipitated by a decline in facility occupancy. While occupancy declined at a rate of 1% per year from 2017 to 2019, in 2020, occupancy fell steeply, declining by an additional 3% statewide. Facilities whose fiscal year ended in December of 2020 saw a steeper revenue decline of 5%, indicating that COVID-19-related occupancy impacts continued to be felt through the entirety of 2020. This drop in net patient revenue was accompanied by an increase in operating expenses. Facilities surveyed reported an overall increase of 2% in operating expenses, driven primarily by non-personnel expenses, and likely caused by the need for additional supplies (PPE, testing, etc.) during COVID-19.

Many of these facilities received support during COVID-19, in the form of CARES (Act 24) funding. The average disbursement for these homes was ~$100K. These funds were not, however, enough to cover the average reported COVID-19 related expenses (~$144K in calendar year 2019) or lost revenue from patients. Thus, these facilities have continued to face financial pressure. At the local level, there may be access issues in particular regions with fewer beds per capita if facilities should close due to financial pressures. As of June 30, 2021, five counties had fewer than two ALF/PCH beds per 1k residents: Perry, Sullivan, Huntingdon, Potter, and Philadelphia. In addition, six counties (Cameron, Fulton, Perry, Potter, Snyder, Sullivan) had only one ALF/PCH facility, and one county (Forest) had no facility. The situation of Potter county is of particular concern because some surrounding counties are also under-bedded.

Figure 6 | ALF/PCH beds per 1k residents by county

ALF/PCHs and counties by beds per 1k residents

Avg. Beds per ..

1.40   12.14
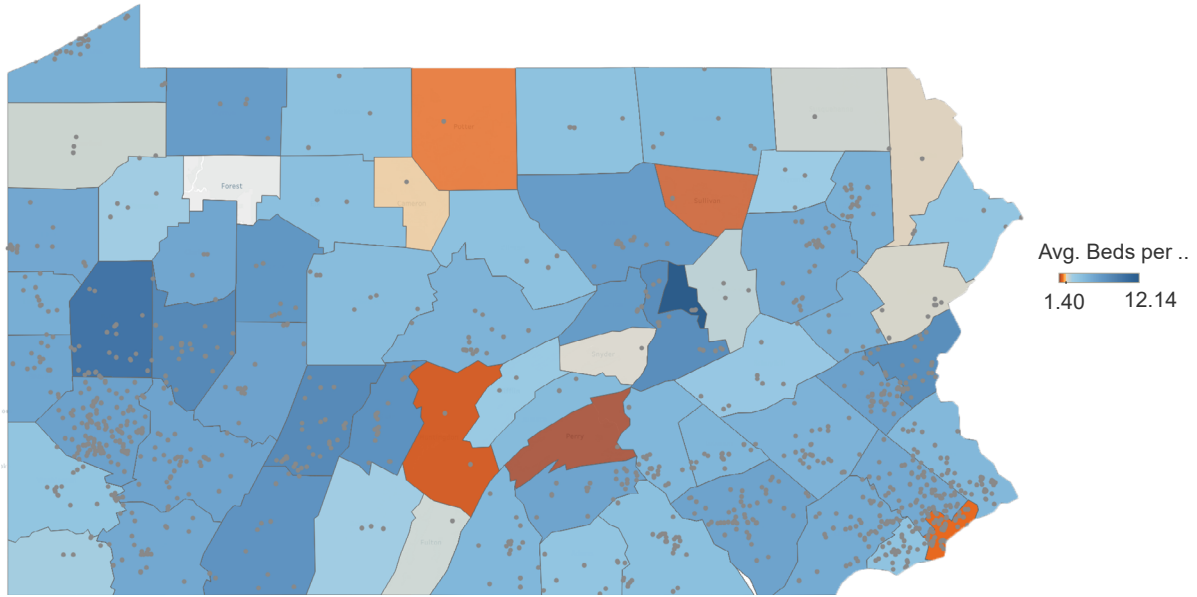
CONCLUSION

This analysis demonstrates that average short-term financial resiliency of Pennsylvania hospitals and long-term care facilities has been weakened by the COVID-19 pandemic, but is largely not in an immediate crisis. There are, however, a subset of facilities that may require assistance or intervention in the short-term to prevent access issues in counties across the state.

Pennsylvania can offer such support through an array of funding structures. Grants, loans, advanced payments, and Medicaid rate increases or coverage expansions are tools that states — including Pennsylvania — have used throughout the pandemic to successfully relieve financial stress on struggling facilities and health systems. As an example, Connecticut and California increased their Medicaid reimbursement rates by 10% for long-term care facility services, North Carolina expanded Medicaid eligibility for COVID-19 treatment and testing for uninsured residents below 200% of the federal poverty level, and Washington, Illinois, and Michigan issued $2M to $200M in total grant funding to the states' provider organizations.[47]

In the long-term, financial resiliency of health care facilities will continue to be affected by industry trends, including increased adoption of virtual care and shifts in site of care, which will result in reduced demand for on-site specialists and in-patient beds. Additionally, labor shortages across the health care workforce will continue to bring about higher labor costs, and industry shifts toward innovative payment models will necessitate more rigorous outcomes tracking. Pennsylvania should consider actions and investments in the near-term to help facilities adapt to these changes in the health care delivery landscape, such as adapting payment models to support care delivery in the right place at the right time and developing prevalent health care workforce vocational and education programs to prepare for increasing labor demand.

The findings of this analysis identify both the type and quantity of facilities at risk of lower financial resilience as well as the root drivers of their financial issues. To further inform future state actions to support Pennsylvania's health care infrastructure, the state could:

- Update analyses with 2021 data, when available, to determine additional impacts of COVID-19

- Conduct deep-dive assessments on facilities and counties considered to be at highest risk

- Evaluate the potential for the Rural Health Model and additional payment model innovations to strengthen financial health while curbing overall health care expenses

- Evaluate best-in-class examples and pioneering solutions to support facilities' adaptations to emerging health care trends

These data would help inform potential future state actions to bolster these organizations' financial viability and ability to provide patients with access to quality health care long into the future.

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47. Gathered from press reports and state websites. See: "Officials Offer Financial Incentives for COVID-19-Focused SNFs Ahead of Peak Cases" (2020). Skilled Nursing News; "Long-Term Care Reimbursement AB 1629" (2020). California Department of Health Care Services; "State of North Carolina Department of Health and Human Services Medicaid Section 1115 Demonstrations COVID-19" (2020); "Hospitals Start Receiving $75M in funding from HFS" (2020). WIFR Newsroom.

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