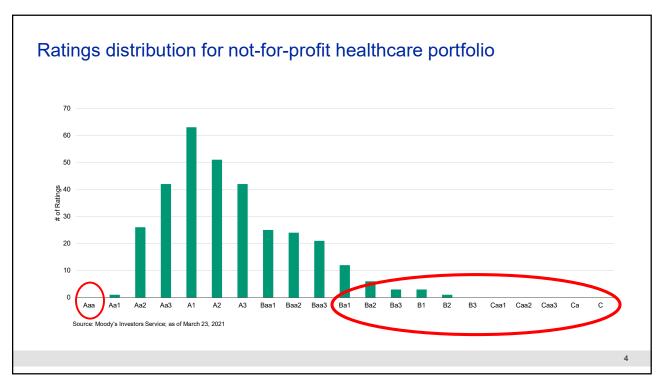
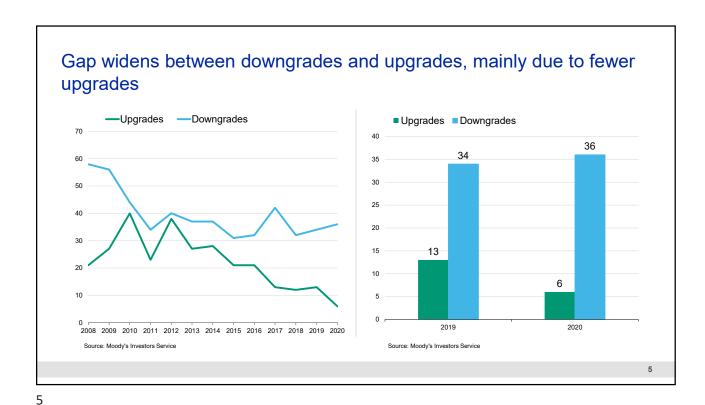




How do we evaluate credit during a pandemic? Measured approach; every story is unique, even within the same market Pandemic is ongoing issue (not "one-time") and evolving Understand 2020 was very difficult year Focus on longer time horizon, relative to pre-pandemic performance; assessment weighted to forward view Permanent vs. temporary changes to credit profile Focus on "steady-state" liquidity and leverage metrics Incorporation of the CARES Act funding into our analysis

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Downgrades driven by ongoing fundamental challenges, exacerbated by the shutdown

Key drivers to the downgrades:

- "Where to Care?" issues:
 - » decline in inpatient cases
 - » rapid rise in observation stays
 - » decline in outpatient cases to competing centers
- » Difficult IT installations and conversions
- » Staffing, productivity challenges
- » Material increase in debt

Outlook remains negative as revenue constraints, rising expenses hurt cash flow

Volume disruption, reductions in employer-sponsored insurance and rising expenses will weigh on hospitals. Hospitals will also face cash flow constraints as treatment moves to lower-cost settings, a trend that began before the outbreak.

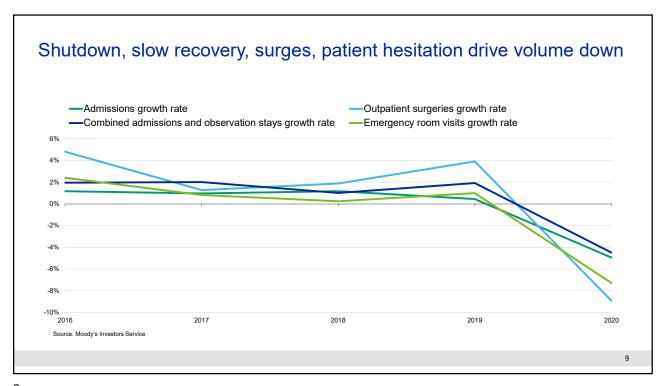
- » Operating cash flow constrained by soft demand for certain services and higher expense growth
- » Pre-pandemic shift to lower cost settings will continue
- » Labor costs and resumption of certain compensation benefits will contribute to rising expenses
- » Unemployment and aging population will reduce commercial insurance revenue
- » Uneven recovery but large, diverse systems and those with cash will be better positioned
- » Judicial, legislative and regulatory activity will add risk

Industry outlooks reflect our view of fundamental business conditions for an industry over the next 12-18 months. Since outlooks represent our forward-looking view on business conditions that factor into our ratings, a negative (positive) outlook suggests that negative (positive) rating actions are more likely on average. However, the industry, but rather our assessment of the main direction of business fundamentals within the overall industry.

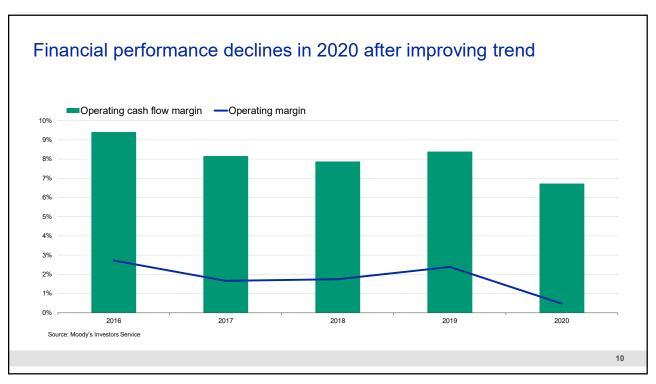
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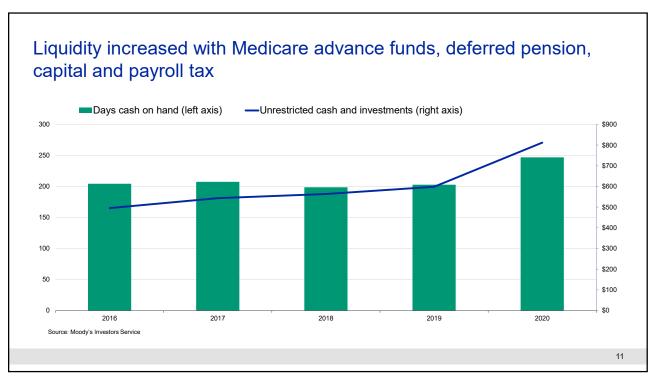
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Median expense growth outpaces revenue growth in 2020 given shutdown, despite expense mitigation strategies —Annual operating revenue growth rate —Annual operating expense growth rate —Surrow Moody's Investors Service









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Recovery will be uneven and vary by region and facility



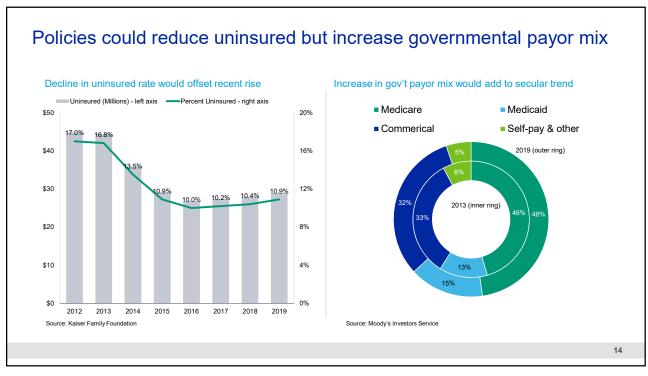
- » Patient volume recovery will vary by region and depend largely on virus containment efforts and patient comfort with seeking care
- » Widespread availability and the number of people that receive vaccines will play a role
- » Overall, volumes at 90-95% of pre-COVID levels; ED visits ~80%
- » Higher acuity cases returning first; rise in Medicare case mix index at many providers
- » Margins for Q3 & Q4 2020 benefitted from CARES Act grants, service mix and cost reductions

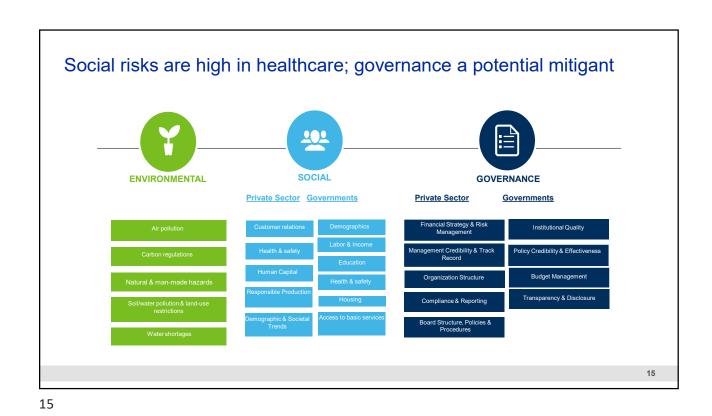
Policy changes could be transformative



- » Potential near-term benefits of new stimulus bill: unemployment benefits, expanded ACA and COBRA subsidies, state aid, funds for vaccine distribution
- » President Biden's focus on reducing uninsured would be credit positive, but impact would depend on degree of shift from commercial to government payers
- » Without a replacement plan, a Supreme Court repeal of the ACA would leave millions of people without insurance coverage and curb hospital revenue
- » Pricing transparency rule will have a mixed effect
- » Drug pricing proposals would reduce income for hospitals in the 340B program

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Strong governance integral in complex healthcare sector



- » Pandemic highlighted the most effective organizations and teams
- » Parameters or guideposts that drive strategic decisions
- » Robust discussion around projections and assumptions, even if imperfect
- » Available levers to address shortfalls and challenges
- » Demonstrated flexibility to respond to changes, execute strategies
- » Good transparency practices followed

Quotes from Moody's credit opinions:

"ability to quickly execute complicated integration strategies"

"disciplined and decisive leadership approach"

"well-developed integration competencies"

"high degree of integration and centralization" "data-driven planning abilities"

"well-defined & ingrained culture" "lengthy leadership succession planning"

Governance contributes to Northwell Health's rating affirmation of A3, stable outlook

"Although the coronavirus will remain a key risk factor over the near term...Northwell's strong management and governance, which was exemplified through its response to the first surge and demonstrated historically through integration of hospitals, physicians and other providers, is a key factor under our ESG framework, and will enable the organization to effectively respond to capacity or other operational challenges that could be caused by the winter surge...."

Research: Rating Action: Moody's affirms Northwell Health's (NY) A3; outlook stable - Moody's

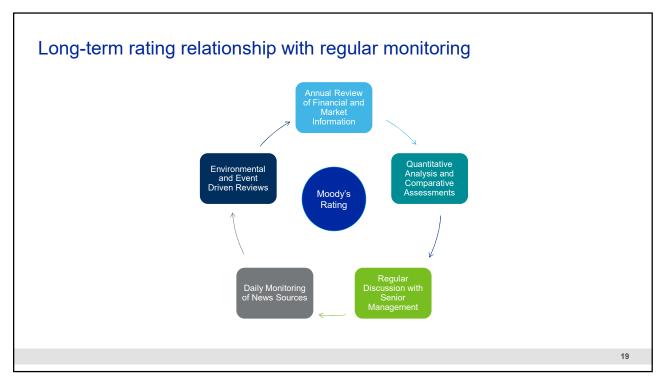
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Centralized management contributes to Thomas Jefferson University's rating of A2, revision of outlook to stable from negative

"Thomas Jefferson University's demonstrated ability to execute strategies through a centralized management model, leading and growing market position as a \$5 billion enterprise, and adequate liquidity will allow for margin improvement while managing through the pandemic....A governance consideration under Moody's ESG classification, TJU's proven ability to decisively execute integration strategies, centralized structure, and data-driven analytical approach to financial planning will drive and volume recovery from the pandemic."

Research: Rating Action: Moody's revises Thomas Jefferson University's (PA) outlook to stable from negative; A2 affirmed - Moody's



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