Report to Nassau County Interim Finance Authority

September 15, 2020

ALVAREZ & MARSAL

Performance Improvement Assessment of Nassau Health Care Corporation

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(Continued)

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CONTENTS

1	Introduction	4
2	Scope & Approach	6
3	Summary of Opportunity	9
4	Revenue Cycle	11
5	A. Holly Patterson	16
6	Supply Chain & Purchased Services	20
7	Workforce Productivity – Nassau University Medical Center	25
8	Physician Productivity	31
9	Other Opportunities	36

1. Introduction

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INTRODUCTION

September 15, 2020

Mr. Adam Barsky
Chairman of the Board
Nassau County Interim Finance Authority
1305 Franklin Avenue, Suite 302
Garden City, NY 11530

Dear Mr. Barsky,

The Nassau Health Care Corporation (NHCC), a stand-alone Public Benefit Corporation safety-net hospital system faces a period of significant financial instability, at the same time that its historical federal, state and local safety-net funding sources are under fiscal pressure or absolute decline. NHCC's operating cash needs, including required capital investments and debt service, before governmental support programs, may reach as much as $(278) million in 2021 even with very favorable operating assumptions. After currently anticipated government support program funding and possible, but as yet an uncommitted accommodation of temporary NHCC monthly payment delays to a state affiliated entity – the New York State (NYS) Health Insurance Program (NYSHIP) - NHCC's cash needs are expected to exceed $(112) million for the 12-month period ending December 31, 2021 and may be as much as $(197) million without NYSHIP's accommodation or increased governmental support. Furthermore, NHCC's own evaluations indicated that capital investment deferrals easily exceed $100 million and may be substantially more. Unrestricted operating cash balances available to fund these needs will likely be under $47 million.

This unprecedented financial challenge led the Nassau County Interim Finance Authority (NIFA) to retain Alvarez & Marsal Healthcare Industry Group, LLC (A&M) to (a) examine options available to NHCC to meet its commitment to access to high quality care while operating a financially sustainable business model, including potential changes to that model, and (b) assess the operations of Nassau Health Care Corporation and provide recommendations to improve NHCC's financial position through performance improvement. This report covers the opportunities to improve the current operations of NHCC. Improvements in operations in the near term, based upon this report's recommendations, if successfully implemented, should provide NHCC with some limited additional time to more fully assess, evaluate and consider its future operating options. A&M will address potential operating and organizational options for NHCC at a later date.

Our initial assessment identified as much as $32.8 million in additional cash improving actions that can be taken by NHCC over the next 15 months. While substantial, these amounts are insufficient to resolve NHCC's structural operating weakness. Even if all these cash improvements are realized, it will only provide limited additional time to consider and implement significant strategic organizational and operating changes. NHCC's own projections confirm that future year operating losses and resulting cash needs are likely to exceed $100 million per year for the foreseeable future, after all known governmental supports and transfers are considered. NHCC cannot continue operating as it currently does and expect to grow its way out of its financial problems.

In the best-case scenario NHCC will receive continued accommodation by NYSHIP at current levels (through 2021). In that scenario, NHCC's immediate 2021 cash needs may be met by utilizing existing and anticipated reserve funds (none of which are currently available for this purpose), by state and federal support remaining stable, by continuing to delay payments to NYSHIP, and by implementing the performance improvement recommendations made in this report. In less optimistic scenarios available operating cash may be exhausted within the first quarter of 2021 or sooner. NHCC has not determined if it will be able to apply CARES Act funds received in 2020 in connection with COVID-19, to meet these general cash needs in 2021 as other state funds to fill this need may be unavailable. Other CARES Act advances are currently scheduled to be recouped by CMS.

Given the urgency of the situation, our approach focused on opportunities that were expected to be substantial enough in magnitude to have a material impact and reduce the cash needs of NHCC over the 15 months ending on December 31, 2021 and are within the control of NHCC. We did not recommend reductions in personnel at Nassau University Medical Center; in fact our review indicated that additional staff may be needed, further eroding operations. This report also does not suggest asset sales, the proceeds of which are generally required by bond covenants to reduce indebtedness, nor does this report consider incremental state or county funding commitments on an ongoing basis to reduce the significant future cash needs of NHCC.

While this report only addresses the opportunities for financial improvement through some immediate operational improvements, it does not address the strategic direction of NHCC, which will be addressed later this year. A&M will consider the enormous future cash needs of NHCC and suggest approaches to meet its commitments to the community to maintain access to quality care within a sustainable operating model for consideration by the NHCC board and other interested constituencies. The timeline for those decisions by the board and responsible constituents may be dictated, in part, by how soon the available operating cash is exhausted.

The cash needs identified earlier in this letter are based on current law, guidance and available estimates as of the date of this letter. There continues to be political and legislative efforts to delay or forgive the repayment of certain funds advanced NHCC under the CARES Act as well as to delay other proposed funding reductions included in these estimates. We expect those activities to continue.

We thank the management and staff of NHCC, the board members of NIFA, the board members of NHCC and the members of Nassau Forward who have spoken to us throughout this review.

Respectfully submitted by,

Larry R. Kaiser, MD, FACS
Managing Director

Martin E. Winter
Managing Director

2. Scope & Approach

SCOPE

A&M's assessment addresses the following entities

- Nassau University Medical Center
  - Including outpatient clinics
- Physician Practice Plan
- A. Holly Patterson Extended Care Facility

Based on our experience with safety-net academic medical centers, A&M emphasized the following operating areas

- Revenue Cycle
- Supply Chain & Purchased Services, including 340B pharmaceutical purchasing
- Workforce Productivity
- Physician Productivity

APPROACH | KEY ACTIVITIES

Requested Information	Analyze	Subject Matter Expert Review	Compile Findings	Vet Findings with Management
• Audited Financial Statements • Unaudited monthly financial statements • Discharge information: MS-DRG. Charges, Payments, length of stay, etc. • Departmental Payroll • Emergency Service detail • KPI Reports • Supply Spend • Accounts Payable & Purchased Services Detail • Corporate & Management Organizational charts • Quality Reports • Other service-related data	• Compiled and summarized source data • Compared to industry benchmarks • Analyzed and quantified opportunity to benchmarks • Subject matter experts reviewed results • Requested additional data as needed • Baseline: Calendar 2019 – Most accurate reflection of performance (pre-COVID-19 impact)	• Operations review by content experts: – Revenue Cycle – Supply Chain – Workforce Productivity – Skilled Nursing – Behavioral Health – 340(b) Purchasing • Listen & understand the current situation • Included: – Review of info. & analytics – Tour(s) of operation – Stakeholder interviews • Identify constraints to improvement • Building & testing hypotheses	• Summarized findings outlining performance improvement items by area • Draft reports were completed by SMEs and results summarized • Improvement items included: – Range of opportunity: low to high – Develop targets, based on current circumstances • Draft and quantify recommendations, based on findings	• Findings were vetted with executive management and accountable area leaders • Two (2) executive-level sessions were conducted to review findings – Questions were answered and appropriate edits were made • Final report to NIFA was produced

3. Summary of Opportunity

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SUMMARY OF OPPORTUNITY | PERFORMANCE IMPROVEMENT

Cash Flow Impact

A&M identified key areas where opportunities exist to improve operations and cash position.

Item	Opportunity Range		Target[1]			
	Low	High	Full Year Run Rate	Q4 2020 + 2021	Q4 2020	2021
Revenue Cycle	$5.9M	$12.1M	$9.1M	$7.3M	$0.0M	$7.3M
Supply Chain & Purchased Services	$6.7M	$11.9M	$9.3M	$8.4M	$0.5M	$7.9M
Physician Productivity	$1.0M	$8.0M	$2.0M	$1.8M	$0.0M	$1.8M
Subtotal - NUMC Non-Labor	**$13.6M**	**$32.0M**	**$20.4M**	**$17.5M**	**$0.5M**	**$17.0M**
Workforce Attrition - NUMC	$1.0M	$3.0M	$1.5M	$1.9M	$0.4M	$1.5M
Workforce Productivity - NUMC	$1.5M	$7.0M	$2.8M	$2.7M	$0.0M	$2.7M
Subtotal - NUMC Labor	**$2.5M**	**$10.0M**	**$4.3M**	**$4.6M**	**$0.4M**	**$4.2M**
A. Holly Patterson	$3.0M	$8.0M	$5.0M	$4.9M	$0.3M	$4.6M
Subtotal - Recurring Improvement	**$19.1M**	**$50.0M**	**$29.7M**	**$27.0M**	**$1.2M**	**$25.8M**
Revenue Cycle One-Time Cash Acceleration	$4.4M	$7.2M	$5.8M	$5.8M	$0.0M	$5.8M
Total	**$23.5M**	**$57.2M**	**$35.5M**	**$32.8M**	**$1.2M**	**$31.6M**

Annual Recurring Benefit

1 Assumes an implementation start date of Oct. 1, 2020. "Q4 2020 + 2021" impact is less than the full year run rate due to some initiatives that will not see realization starting until the 1st or 2nd quarter of 2021.

Significant opportunity exists if effort commenced immediately

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4. Revenue Cycle

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REVENUE CYCLE | SUMMARY

Approach

A&M performed a financial and operational performance assessment for Hospital, Physician Practice Plan, and A. Holly Patterson Revenue Cycle

- Evaluated calendar 2019 charges and reimbursement (COVID-19 distorts 2020)
- Conducted 15+ management and staff interviews
- Benchmarked current trended Key Performance Indicators (KPIs) to target opportunity
- Reviewed 30 patient claims (Inpatient and Outpatient) to assess pharmaceutical billing opportunity
- Reviewed Coding and Clinical documentation of 50 inpatients evaluate opportunity

Findings

Financial quantification of improvement opportunities identified

Prioritized list of recommendations and action plans for management to achieve financial improvement opportunities

Benchmarked Revenue Cycle performance across Key Performance Indicators (KPI)

- See section on A. Holly Patterson for quantification of billing and collection opportunity at AHP

REVENUE CYCLE | OPPORTUNITIES

Annual Run Rate Opportunities – Improving Revenue Cycle is achievable with limited impact on workforce

Item	Level of Effort	Opportunity Range		Target[1]			
		Low	High	Full Year Run Rate	Q4 2020 + 2021	Q4 2020	2021
Hospital: Reduce Avoidable Write-Offfs	High	$2.3M	$4.5M	$3.4M	$2.6M	$0.0M	$2.6M
Hospital: Reduce Bad Debt	Medium	$1.3M	$2.2M	$1.8M	$1.4M	$0.0M	$1.4M
Hospital: Improve Out Patient Self-Pay Conversion	Medium	$0.7M	$2.2M	$1.5M	$1.4M	$0.0M	$1.4M
Hospital: Improve Coding and Documentation	Medium	$0.7M	$1.5M	$1.1M	$1.1M	$0.0M	$1.1M
Physician: Reduce Avoidable Write-Offs	High	$0.4M	$0.6M	$0.5M	$0.4M	$0.0M	$0.4M
Physician: Reduce Bad Debt	Medium	$0.1M	$0.2M	$0.1M	$0.1M	$0.0M	$0.1M
Physician: Coding Improvement	Medium	$0.5M	$0.9M	$0.7M	$0.5M	$0.0M	$0.5M
Total[2]		**$5.9M**	**$12.1M**	**$9.1M**	**$7.3M**	**$0.0M**	**$7.3M**

1 Assumes an implementation start date of October 1, 2020 and excludes A. Holly Patterson. See the AHP section for related revenue cycle findings & recommendations.
2 Totals may differ from summation due to rounding

REVENUE CYCLE | OPPORTUNITIES

1X Cash Acceleration - Several key Revenue Cycle areas where opportunities exist for one-time cash acceleration:

Item	Level of Effort	Opportunity Range		Target[1]			
		Low	High	Full Year Run Rate	Q4 2020 + 2021	Q4 2020	2021
Hospital - Reduce Collectible Aged AR	Medium	$2.3M	$3.8M	$3.0M	$3.0M	$0.0M	$3.0M
Hospital - Reduce Charge Lag	Medium	$1.2M	$1.9M	$1.6M	$1.6M	$0.0M	$1.6M
Physician - Reduce Collectible Aged AR	Medium	$0.5M	$0.8M	$0.6M	$0.6M	$0.0M	$0.6M
Physician - Reduce Charge Lag	High	$0.4M	$0.7M	$0.6M	$0.6M	$0.0M	$0.6M
Total		**$4.4M**	**$7.2M**	**$5.8M**	**$5.8M**	**$0.0M**	**$5.8M**

1 Assumes an implementation start date of October 1, 2020.

REVENUE CYCLE | NASSAU UNIVERSITY MEDICAL CENTER

Additional Unquantified Opportunities

Item	Timing	Effort Required
Evaluate the benefits of an observation unit for patients that do not meet in-patient criteria. This will entail and more thorough analysis as part of an implementation phase. Such work should include location/space assessment, alignment with clinical administration to establish provider documentation requirements and billing processes to capture charges for patients in observation status and establishing contract rate with payors.	180 days	High
Implement a regular productivity and quality audit program: Establish productivity targets, implement a quality audit program and provide regular performance feedback.	< 90 days	High
Consider updating job candidate testing criteria: Add elements of aptitude testing and relevant job experience in the hiring process. Partner with HR to update testing content to reflect job requirements for Revenue Cycle vs general accounting	< 60 days	Medium
Improve charge capture in the ED for bedside procedures, injections and infusions	90-180 days	Medium
Improve charge capture of infusion drugs in the oncology clinic: There is an opportunity to charge an administration fee which may result in additional reimbursement. Drugs administered should be charged and written off appropriately.	90-180 days	Medium
Reduce internal and vendor spend to industry targets	180 days	High
Reduce credit balance: Establish a credit balance work down plan to ensure all credits are applied appropriately and timely	<30 days	Low

5. A. Holly Patterson

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A. HOLLY PATTERSON | SUMMARY

Approach

Guiding prism was used for the assessment

- Safety Net
- Medicaid population

} Access, Quality, Sustainability

- Marketplace – significant available Medicare population opportunity

AHP has advantages despite facing a significant financial challenge

- Dedicated team working to serve the patients
- Great location with a large accessible market
- Potential to expand services

Findings

NHCC review indicates the physical plant needs significant investment ($9 - $10M)

Annual performance opportunity ($5.0M) includes:

- Some potential staffing opportunity in direct care
- Available capacity to grow new programs: growth is possible in current market
- Adopt improved billing and collection processes

A. HOLLY PATTERSON | OPPORTUNITIES

Potential $3.0 to $8.0M opportunity, not including other post-employment benefit costs

Item	Level of Effort	Opportunity Range		Target[1]			
		Low	High	Full Year Run Rate	Q4 2020 + 2021	Q4 2020	2021
Workforce Productivity – Nursing[2]	High	$1.0M	$2.0M	$1.5M	$1.6M	$0.1M	$1.5M
Revenue Cycle - Bad Debt Reduction	Low	$1.0M	$3.0M	$2.0M	$2.2M	$0.2M	$2.0M
New Services (Margin Impact): Potential for new South Asian, Dementia, CPAP, Bariatric, & New Referral Sources. Expand HIV, Hemodialysis, and Ventilator	Medium	$1.0M	$3.0M	$1.5M	$1.1M	$0.0M	$1.1M
Total		**$3.0M**	**$8.0M**	**$5.0M**	**$4.9M**	**$0.3M**	**$4.6M**

1 Assumes an implementation start date of October 1, 2020.
2 Includes an assumed 30% fringe benefit rate for AHP

A. HOLLY PATTERSON | PATH TO IMPROVEMENT

AHP operates at an unsustainable annual operating loss of over $17M (2020 budget) before capital expenditures and after government transfer/support payments. 2020 actual losses (LTF) are trending to ($25.2M) before CARES offsets and before post-employment benefits.

Adjusting labor to benchmarks **will not** lead AHP to breakeven performance

- Occupancy rate must be improved to cover fixed costs

There is a need target payers with **higher reimbursement**

- Current payer mix is dominated by Medicaid
- Seek to adjust to a higher percentage of Medicare and managed care patient census with higher reimbursement levels
  - There are available patients in the market
- Current daily Medicaid rate is $285[1] vs $521[2] for Medicare

There is a need to **streamline and accelerate** admissions process

Current AHP staffing has the capability to take on **more complex patients**

- Focus efforts on increasing census of higher reimbursing services: HIV & Hemodialysis.

1. From New York State Department of Health
2. 2018 National Average from Plante Moran

6. Supply Chain & Purchased Services

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SUPPLY CHAIN & PURCHASED SERVICES | SUMMARY

Approach

- Assessed NHCC non-labor management including Supply Chain, Pharmacy and Purchased Services
- Interviewed key internal stakeholders for Supply Chain, Purchased Services, and Pharmacy
- Developed internal and external benchmarking analyses using accounts payable and purchase order data
- Utilized findings, market knowledge and experience to arrive at recommendations and opportunities

Findings

- The 2019 annualized AP spend for non-labor totaled $173M[1]
- Total supply expenses, for 2019, represented 28% of the total operating expense
- Total run rate annual opportunity of $9.3M reduction in spend identified: 15-month target - $8.5M
- Supply Chain has limited command and control processes and structures allowing the possibility of end users editing contract pricing
- New leadership is working on modernizing the supply requisition process

1. Based on total cash impact of accounts payable and purchased services for the calendar year 2019. This number is typically higher than published financial statement information within all organizations due to accrual accounting methodology. Calendar year 2019 operating expense noted in audited financial statements as "Supplies and other expenses," was $165M.

SUPPLY CHAIN & PURCHASED SERVICES | OPPORUNITIES

The below list of categories are organized by significance of opportunity

Item	Level of Effort	Opportunity Range		Target[1]			
		Low	High	Full Year Run Rate	Q4 2020 + 2021	Q4 2020	2021
Utilize 340B to reduce drug acq. costs[3]	Medium	$2,500.0K	$4,000.0K	$3,250.0K	$3,000.0K	$300.0K	$2,700.0K
Optimize Clinical Pharmacy Formulary	Medium	$500.0K	$1,000.0K	$750.0K	$625.0K	$0.0K	$625.0K
Increase Standardization Of Physician Preference Items[2]	High	$404.4K	$741.3K	$572.9K	$381.9K	$0.0K	$381.9K
Increase Standardization Of Software and Hardware Contracts	Medium	$318.9K	$637.8K	$478.3K	$398.6K	$0.0K	$398.6K
Contract Pharmacy Revenue Lift (340B)	Medium	$300.0K	$645.1K	$472.5K	$393.8K	$0.0K	$393.8K
Increase GPO Contract Utilization	Low	$300.0K	$431.0K	$365.5K	$426.4K	$60.9K	$365.5K
Increase Contract Compliance for Surgical Equipment	High	$250.0K	$418.0K	$334.0K	$222.7K	$0.0K	$222.7K
MedSurg Supplies Product Conversion	Medium	$250.0K	$400.0K	$325.0K	$379.2K	$54.2K	$325.0K
Reduce Energy Consumption	Low	$227.6K	$455.1K	$341.3K	$256.0K	$0.0K	$256.0K

1 Assumes an implementation start date of October 1, 2020.
2 Reducing Physician preference items is an important but complex process
3 340B has been overlooked by NUMC for many years and is now in NYS sight for potential reduction

Note: Totals may differ from summation due to rounding

SUPPLY CHAIN & PURCHASED SERVICES | OPPORUNITIES

The below list of categories are organized by significance of opportunity (continued)

Item	Level of Effort	Opportunity Range		Target[1]			
		Low	High	Full Year Run Rate	Q4 2020 + 2021	Q4 2020	2021
Negotiate Staffing Agency Hourly Rates	Medium	$203.7K	$407.4K	$305.6K	$305.6K	$0.0K	$305.6K
Leverage Better Pricing For Lab Supplies	Medium	$200.0K	$300.0K	$250.0K	$229.2K	$0.0K	$229.2K
Consolidate Outside Anesthesia services	Medium	$185.2K	$370.5K	$277.9K	$301.0K	$23.2K	$277.9K
Consolidate Outside Facilities Service Providers	Medium	$172.6K	$345.3K	$259.0K	$215.8K	$0.0K	$215.8K
Optimize Insurance Premium Spend	Medium	$147.9K	$314.4K	$231.2K	$250.4K	$19.3K	$231.2K
Improve Service Rates For Biomed Equipment	Medium	$153.1K	$306.2K	$229.6K	$248.8K	$19.1K	$229.6K
Leverage Better Printer Agreement Rates	Low	$90.0K	$125.0K	$107.5K	$125.4K	$17.9K	$107.5K
Improve Food Service Contract Pricing	Medium	$79.0K	$158.0K	$118.5K	$108.6K	$0.0K	$108.6K
Optimize Laundry Service Utilization	Medium	$75.0K	$125.0K	$100.0K	$108.3K	$8.3K	$100.0K

1 Assumes an implementation start date of October 1, 2020.

Note: Totals may differ from summation due to rounding

SUPPLY CHAIN & PURCHASED SERVICES | OPPORUNITIES

The below list of categories are organized by significance of opportunity (continued)

Item	Level of Effort	Opportunity Range		Target[1]			
		Low	High	Full Year Run Rate	Q4 2020 + 2021	Q4 2020	2021
Consolidate Waste Companies To Improve Rates	Medium	$75.0K	$100.0K	$87.5K	$80.2K	$0.0K	$80.2K
Negotiate Improved Telecom Rates	Low	$73.7K	$145.6K	$109.7K	$128.0K	$18.3K	$109.7K
Leverage Better Pricing For Reference Lab Tests	Medium	$67.8K	$135.6K	$101.7K	$93.2K	$0.0K	$93.2K
Increase Standardization OF Elevator Service Contracts	Medium	$33.7K	$101.2K	$67.5K	$50.6K	$0.0K	$50.6K
Optimize Price/ Utilization Of Blood Products	Medium	$36.0K	$71.9K	$54.0K	$54.0K	$0.0K	$54.0K
Increase Contract Compliance For Office Supplies	Low	$29.6K	$47.4K	$38.5K	$44.9K	$6.4K	$38.5K
Modify Walgreen's Charge Amounts	High	$31.1K	$57.1K	$31.1K	$31.1K	$0.0K	$31.1K
Reduce Cost For Books, Periodical & Subscriptions	Low	$12.2K	$32.7K	$22.5K	$16.8K	$0.0K	$16.8K
Total[4]		**$6.7M**	**$11.9M**	**$9.3M**	**$8.4M**	**$0.5M**	**$7.9M**

1 Assumes an implementation start date of October 1, 2020.

4 Totals may differ from summation due to rounding

7. Workforce Productivity – Nassau University Medical Center

WORKFORCE PRODUCTIVITY – NUMC | SUMMARY

Approach

A&M conducted a comparative productivity analysis at the department level

- Utilized calendar 2019 payroll detail at the department level, including total regular (worked), overtime (worked), vacation, other leave, agency, total hours, and dollars paid
- 2019 data is free from impact of the recent COVID-19 crisis which has significantly reduced daily census in 2020.

Benchmarking Information Source: Truven Analytics Action OI™ 1

- A peer group was developed to best align with NUMC operational characteristics including number of licensed beds, average daily census, case mix index[2] (Medicare and All-Payer), services lines offered, geographical region, and level of teaching program

A&M also conducted management interviews and presentations to discuss current operations and identify possible constraints within organization operations

- Material issues identified in the interviews were incorporated into the assessment

Findings

Results of Analysis

- NUMC showed little to no aggregate opportunity (across all departments), when compared to the top 30th percentile (70th percentile) – the most productive providers of the peer group.

Recommended Actions

- Based on comparative performance, the hospital runs a lean staffing structure and may benefit from some selective hiring. Any change in service offerings as well as an examination of unit consolidation should be completed to accurately assess incremental staffing needs. This step should be taken in partnership with CSEA.

Other Observations

- Immediate action should be taken to mitigate and improve current patient satisfaction scores. NUMC was recently reported (July 31, 2020) as 1 of 85 national hospitals receiving a 1-Star rating by the Centers for Medicare and Medicaid Services (CMS) on patient experience. As a reference, 5 stars is the highest rating for positive patient satisfaction scores. On July 31, 2020, CMS rated 3,478 hospitals. Staffing levels are likely to be a contributing factor.

1 Action OI™ is a leading source of comparative productivity data for hospitals.
2 Case Mix Index is a standard hospital measure of acuity (severity of illness) of patients admitted to the hospital

WORKFORCE PRODUCTIVITY- NUMC | OPPORTUNITIES

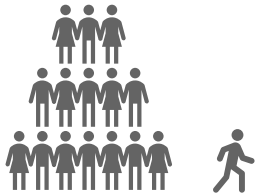
Findings *(Continued)*

Item	Impact Type	Level of Effort	Opportunity Range		Target[1]			
			Low	High	Full Year Run Rate	Q4 2020 + 2021	Q4 2020	2021
Attrition Savings: Maintain a portion of attrition rate w/o backfill of regular and/or OT hours	PI	Low	$1.0M	$3.0M	$1.5M	$1.9M	$0.4M	$1.5M
Better Central Overtime Utilization	PI	High	$1.0M	$6.0M	$2.0M	$2.0M	$0.0M	$2.0M
Improve Workforce / Staffing Management Process	PI	Low	$0.5M	$1.0M	$0.8M	$0.7M	$0.0M	$0.7M
Total			**$2.5M**	**$10.0M**	**$4.3M**	**$4.6M**	**$0.4M**	**$4.2M**

1 Assumes an implementation start date of October 1, 2020.

WORKFORCE PRODUCTIVITY – NUMC | KEY FINDINGS

Attrition



Opportunity identified: $1.0M – 3.0M[1]

- Net FTE Impact for the period 4/1/20 - 7/31/20 = (34.2) FTE (NUMC)
- Low = 10 FTE x $100K = $1.0M
- High = 30 FTE x $100K = $3.0M

Target = $1.9M (19 FTE x $100K[1])

- Maintain a rate of attrition without backfill of regular and/or OT hours requires management effort

Improved Workforce Management & Staffing Process

Opportunity identified: $0.5M – $1.0M

Target = $0.7M

- Based on A&M experience, organizations can achieve up to a 3% reduction of total labor expense by utilizing proven labor management processes (with high compliance), including biweekly productivity reporting and aggressive position control throughout the year.
- Based on discovery, during this assessment, A&M did not observe or receive indication of the consistent use of these management processes.
- Target calculation: $223M (2019 labor expense) x 3% = $6.7M x 10% = $0.7M
  - Opportunity was discounted by 90% to correspond with A&M's estimate of ability to achieve savings based on current circumstances, including management processes, systems, and collective bargaining agreement

Tactics to achieve target include:

- Aggressive productivity management, ensuring staffing flexing with volumes, on a bi-weekly and daily basis
- Refined staffing plans
  - Based on historical and predicted volumes
- Integration of productivity management into the hiring approval process. Example, do not fill replacement if the department is not achieving productivity expectation.

Note: All Opportunity developed from 2019 calendar payroll data.

1 Impact estimated at $100K / FTE (includes benefits) based on weighted average payroll per FTE

STAFFING PRODUCTIVITY – NUMC | KEY FINDINGS

Reduce Overtime Utilization

Opportunity identified: $1.0M – $6.0M

- A&M conducted a detailed review of overtime (OT) utilization at the department level
- NUMC experiences a high percentage of worked OT hours to total worked hours
  - 352,330 (OT worked hours) / 4,130,708 (total worked hours) = 8.5%
    - Comparable organizations typically experience 3.0% - 5.0%
- Opportunity calculation
  - Low (tighten management of hours): $1.0M
    - 7% reduction of OT hours = 352,330 (OT worked hours) x 7% x $42.79 (average hourly OT pay rate)
  - High (very disciplined management of hours): $6.0M
    - 40% reduction of OT hours = 352,330 (OT worked hours) x 40% x $42.79 (average hourly OT pay rate)

Target = $2.0M

- Circumstances considered when establishing target
  - Leadership interviews revealed overtime is often used to fill needed shifts as a less expensive option to hiring. It was noted the cost of overtime utilization is a less expensive option than hiring new staff due to the benefits structure.
  - Systems and processes often relied upon for effective control of overtime expense at comparable organizations are absent at NUMC
  - NUMC experiences a longer period of recruitment for replacement positions than comparable organizations increasing reliance on OT utilization
- Target calculation: $3.5M (midpoint of range) x 57% = $2.0M
  - Opportunity was derived by discounting to correspond with A&Ms estimate of ability to achieve savings considering NUMC's current staffing approach, including the lack of support mechanisms and the current collective bargaining agreement
  - Achieving the target of $2M represents a 13% reduction of OT worked hours and would result in an overall 7.4% of OT worked hours to total worked hours: remaining materially higher than most comparable organizations

Tactics to achieve target include:

- Will require partnership through the current collective bargaining agreement
- Implement disciplined productivity management, including a review of overtime utilization at the department level and ensuring staffing flexing with volumes, on a bi-weekly and daily basis
- Refine staffing plans
  - Based on historical and predicted volumes
  - Plans should be re-evaluated on a monthly basis
- Improve position replacement process decreasing overall time to fill (position)
  - Highlights complexity of hospital hiring when working in a civil service model
- Integrate productivity management into the hiring approval process
  - Example, do not fill replacement if the department is not achieving productivity expectation

Note: Opportunity developed from 2019 payroll data.

8. Physician Productivity

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PHYSICIAN PRODUCTIVITY | SUMMARY

Approach

Timeframe and source of information for review: Calendar 2019 Payroll and Physician Billing reports

- 2019 was used as the information is free from the impact from the recent COVID-19 crisis

A&M conducted a comparative productivity analysis by specialty[1]

- Utilizing calendar 2019 payroll and physician billing detail at the specialty level, A&M reviewed 203 physicians[1] representing 19 specialties.
- Relative Value Units, which are a uniform measure of physician productivity, were used for the analysis.

Benchmarking Information: Medical Group Management Association (MGMA™)[2]

- A peer group was developed to best align with NUMC operational characteristics, specialties offered, geographical region, and size of teaching program

A&M also conducted management interviews and presentations to discuss current operations and identify possible constraints within operations

- Material issues identified in the interviews were incorporated into the assessment such as high no-show rates and increased re-work associated with disparate scheduling systems.

Findings

13 of 19 specialties[1] operate at level lower than peer group median performance in physician productivity with 8 exhibiting lower than bottom quartile.

- This provides a substantial opportunity for improvement

Clinic "no-show" rate as high as 45% in some specialties[3]

Scheduling system and process need improvement

- Disparate scheduling systems and processes hamper scheduling efficiency[3]
- Automated appointment reminder systems are not utilized for appointments[3]

Due to the necessity to change systems and processes these savings may take up to 18 months to achieve

1 Analysis excludes physicians who are not paid directly by the hospital and, as such, our findings do not comment on nor represent productivity performance for those physicians.
2 MGMA is a leading source of comparative physician productivity data
3 Based on findings from stakeholder interviews

PHYSICIAN PRODUCTIVITY | OPPORTUNITIES

Opportunity range is $1.0M to $8.0M

NUMC Physician Productivity

Could equate to $11.2M[2] in additional collections

Based on peer group comparison, if NUMC physician productivity were to achieve peer median performance in overall productivity levels, it would equate to $11.2M in additional collections

As available demand remains unclear, A&M deeply discounted the range of opportunity to account for an impact on productivity from operational changes impacting clinic throughput noted in the recommendations section[2].

OPPORTUNITY RANGE:
TARGET $1.8M[2]

Low: $11.2M x 9% = $1.0M — High: $11.2M x 71% = $8.0M

Item	Impact Type	Level of Effort	Opportunity Range		Target[1]			
			Low	High	Annual Target	Q4 2020 + 2021	Q4 2020	2021
Improve Physician Productivity	PI	High	$1.0M	$8.0M	$2.0M	$1.8M	$0.0M	$1.8M
Total			**$1.0M**	**$8.0M**	**$2.0M**	**$1.8M**	**$0.0M**	**$1.8M**

1. Assumes an implementation start date of October 1, 2020.
2. Calculated opportunity target was deeply discounted since available volume is unclear. Analysis excludes physicians who are not paid directly by the hospital and, as such, our findings do not comment on nor represent productivity performance for those physicians.

PHYSICIAN PRODUCTIVITY | OPPORTUNITIES

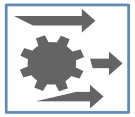
Tactics to achieve target include:

IMPROVE OVERALL PHYSICIAN PRODUCTIVITY BY INCREASING VOLUME

- To achieve the $2M target, an additional 54,000 billed and collected wRVUs will be needed.
- This represents a 7.5% increase in annual wRVUs billed and collected.
- The actual number of additional physician encounters to achieve 54,000 wRVUs will vary by specialty and requires further analysis to determine.

REVISE THE CURRENT SCHEDULING PROCESS AND, EVENTUAL, SUPPORTING INFORMATION SYSTEM

REFINE THE APPOINTMENT REMINDER PROCESS TO INCLUDE AUTOMATED PATIENT REMINDERS



REVIEW AND RESTRUCTURE CLINIC HOURS OF OPERATION

REFINE PHYSICIAN PRODUCTIVITY TARGETS

- Including the establishment of a frequent reporting mechanism to allow physicians to understand their current productivity at a given point of time

PHYSICIAN PRODUCTIVITY | OPPORTUNITIES

Other Observations

If productivity and margin improvement are not able to be achieved through increased volume, the hospital should consider the following:

- Reduce number of physicians
- Modify compensation model if productivity standards are not met

Note, any staffing changes needed to improve overall physician productivity or reduction in compensation model will need to be considered in conjunction with the current collective bargaining agreement

9. Other Opportunities

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AREAS OUTSIDE PROJECT SCOPE | LONG ISLAND FQHC

The Long Island FQHC was not within scope, however, the following performance improvement opportunity came to our attention. Currently, Transitional Care Management (TCM) is not being provided at the LIFQHC. TCM is intended to reduce potentially preventable readmissions and medical errors during the 30 days following discharge from the acute care setting, there is an estimated financial benefit of $0.2M to $0.6M in annual benefit (excluding operational costs) to the FQHC.

Income Statement Impact

Item	Opportunity Range Low	High	Timing	Effort
Implement Transitional Care Mgmt. (FQHC opportunity)	$199K	$598K	6-9 mos.	Medium
Total	**$0.2M**	**$0.6M**		

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