

The Role of an Executive Surgeon Leader

Establishing Programmatic Vertical Integration and Alignment

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*Chairman of Urology and Director of Robotic Surgery
Hackensack Meridian Health, Hackensack, NJ*



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Over 18 Years Of Robotic Experience

2004

Da Vinci Trained

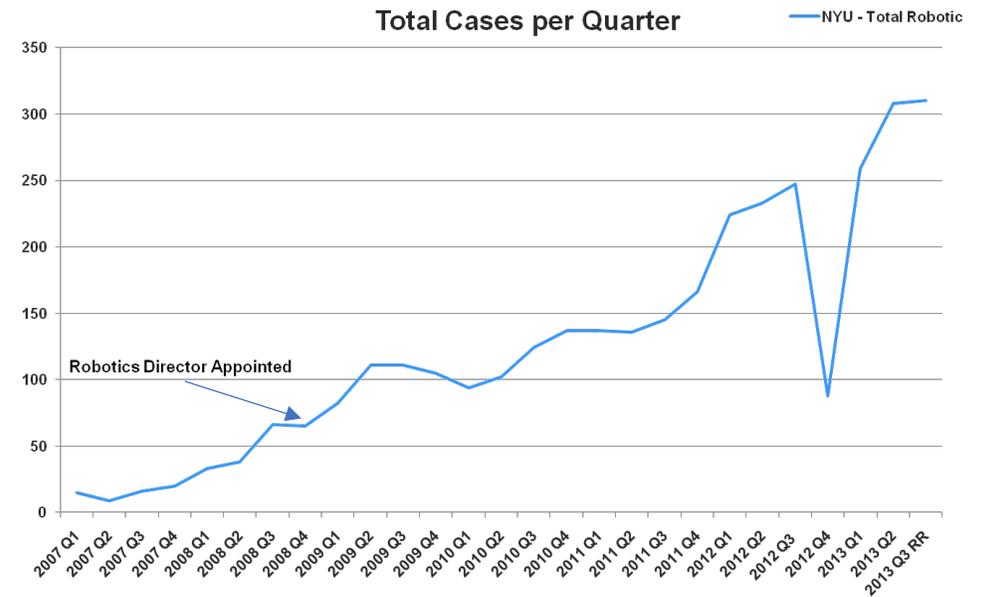
2009

Appointed
Director of
Robotics, NYU



2005

1st Publication
dVPN, J. Urology



Surgeon Leader → Program Leader → System Leader

2016

Recruited to HUMC

- Chair of Urology Department
- Professor, Chair School of Medicine

2019

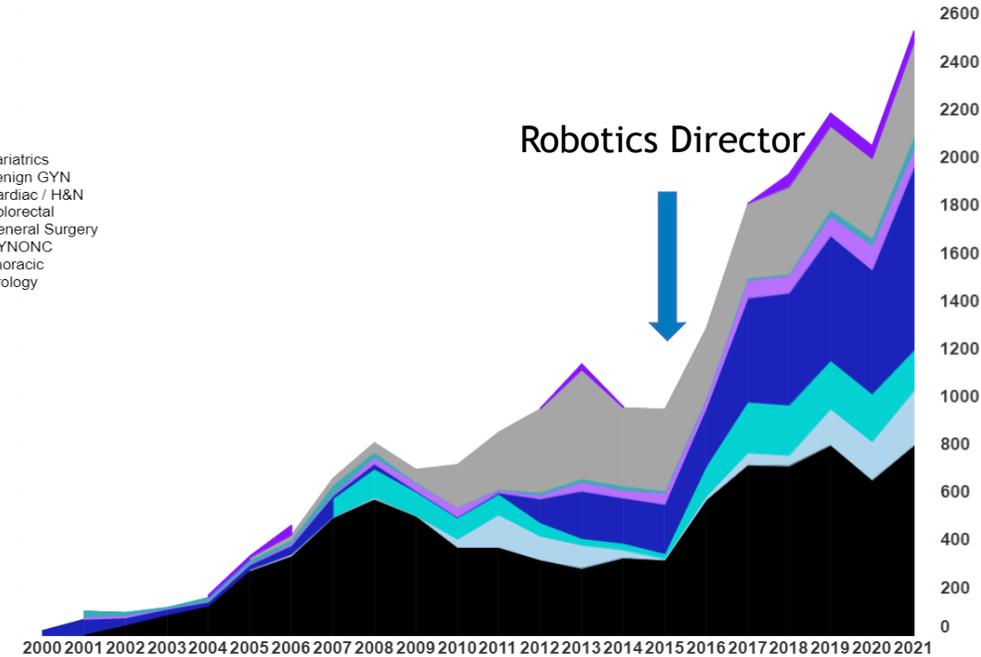
Chair, Hackensack Meridian Health System Robotic Service Line

2017

Appointed Director of Robotic Surgery, HUMC



- Bariatrics
- Benign GYN
- Cardiac / H&N
- Colorectal
- General Surgery
- GYNONC
- Thoracic
- Urology



Qualifying Objectives - Establish a True North



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Robotic-assisted Surgery Aligns To Quadruple Aim

Enhanced Patient Experience

- Less Pain
- Faster Recovery
- Reduced Conversions
- Outpatient vs. Inpatient

Improved Clinical Outcomes

- Length of Stay
- Complications
- SSI
- Return to OR
- Readmission
- Consistency of Outcomes

Lower Total Cost of Care

- Reduced Clinical Variation
- Pathway friendly
- Decrease LOS and Readmissions
- Unified Ecosystem

Enhanced Provider Experience

- Ergonomics
- Dedicated Teams
- OR Efficiencies
- Analytics
- Training
- Marketing

In the Beginning at HUMC...

Early Observations & Challenges



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Programmatic Challenges At HUMC

Lack of a data analyst focused on data collection

Executive alignment / support

In need of organizational structure

Communication challenges

Competitive Pressures

Block time issues - causing surgeon migration

Negative mindset towards robotics

Absence of true Robotic service line commitment



Empower the Team,
Remove the Barriers,
Gain Alignment



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Executive Surgeon Leader Attributes

- ✓ High integrity
- ✓ Data driven (evidence-based medicine)
- ✓ Technically competent
- ✓ Moral compass
- ✓ Trustworthy
- ✓ Sees the forest, not just the trees
- ✓ Brings people and causes together
- ✓ Good communication skills
- ✓ Respects and is respected
- ✓ Cost conscious
- ✓ Team mentality
- ✓ Understands healthcare trends
- ✓ Opportunistic (the Power of Moments)
- ✓ Provides focused recognition
- ✓ Has the time
- ✓ Has the passion
- ✓ Fosters a culture of nurturing
- ✓ Actions speak louder than words
- ✓ Is inquisitive
- ✓ Learns from mistakes
- ✓ Takes ownership
- ✓ Elevates everyone's game
- ✓ Capable of crucial conversations
- ✓ "The CEO", "The Conductor"

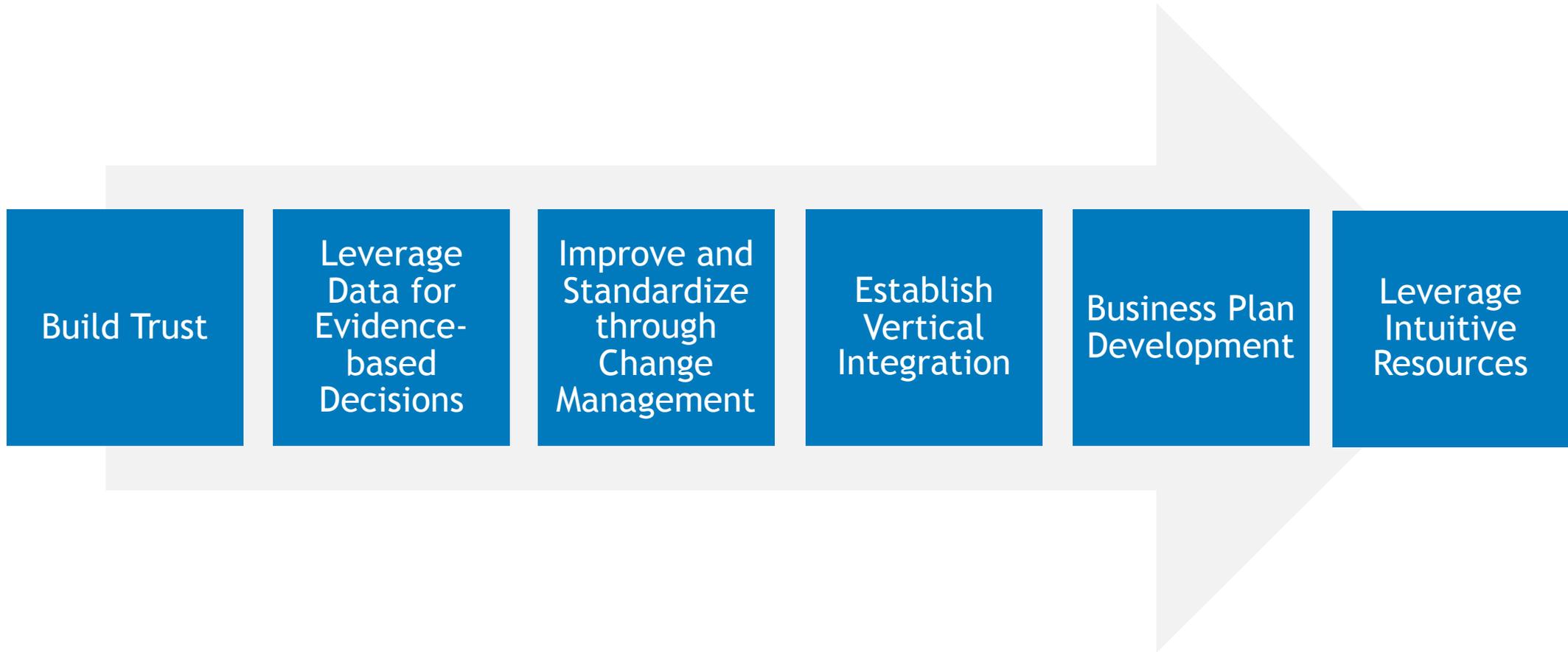
Gaining Alignment to Create Structure & Culture



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Key Initiatives Identified For Our Program



Building Trust



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BUILDING TRUST WITH LEADERSHIP, PHYSICIANS, AND STAFF



- ✓ Articulate goals
- ✓ Access and share the data
- ✓ Create Standard Operating Procedures
- ✓ Achieve early, consistent wins
- ✓ Share and celebrate success

Three Key Pillars Required To Achieve Programmatic Excellence

Executive Leadership

- Committed to growing volume
- Recruiting new surgeons
- Track revenue: new, lost & retention



Clinical Excellence

- Standardize surgeon credentialing
- Facilitate surgeon educators & education
- Data: transparent, accessible, outcomes



Operational Excellence

- Lower OR cost/ case
- OR team support
- Case support: FCOTS, TOT, block time



Vertical Integration

Robotic Surgery Leadership Teams



Executive Leadership

Team Members: Administrators and Lead Surgeons

Goals: to be the leaders in Robotic Surgery (with a focus on X, Y, Z)

Responsibilities: communicate the program goal to the operational oversight team, align program decisions with goal (capital acquisition, surgeon recruitment, etc.)

Meeting: Once per quarter



Operational Oversight

Team Members: Surgeon, Anesthesia, Nursing and OR Team Representatives

Goals: Program performance measurement and development

Responsibilities: Review metrics, develop and implement improvement strategies, and communicate the program goal to the Day-to-Day Operations group

Meeting: Once per month



Day-to-Day Operations

Team Members: Daily users including Nurses, Techs, Attendants, Anesthesia and Surgeons

Goals: Deliver high quality care

Responsibilities: Provide the 'real-world' view of the program to Operational Oversight, and executes growth and development strategies

Meeting: Daily to weekly



Aligning Priorities to Achieve Goals

Executive Goals

- Growth: Volume
- Financial Performance: Margin
- Payer Mix: Revenue
- Operational Excellence: Capacity and Throughput
- Cost Management: Supply Cost

Clinical Goals

- Quality Outcomes: Conversions, Complications, Readmissions
- Length of Stay: ERAS
- OR Efficiency: Console Time
- Reducing Variation: Instrument Choreography

Operational Goals

- System Access: scheduling and block utilization
- Capacity and Throughput: system utilization
- Room Efficiency: turnover time
- Inventory Mgmt: par levels
- Standardization: trays and preference cards
- Staff: Training & CME

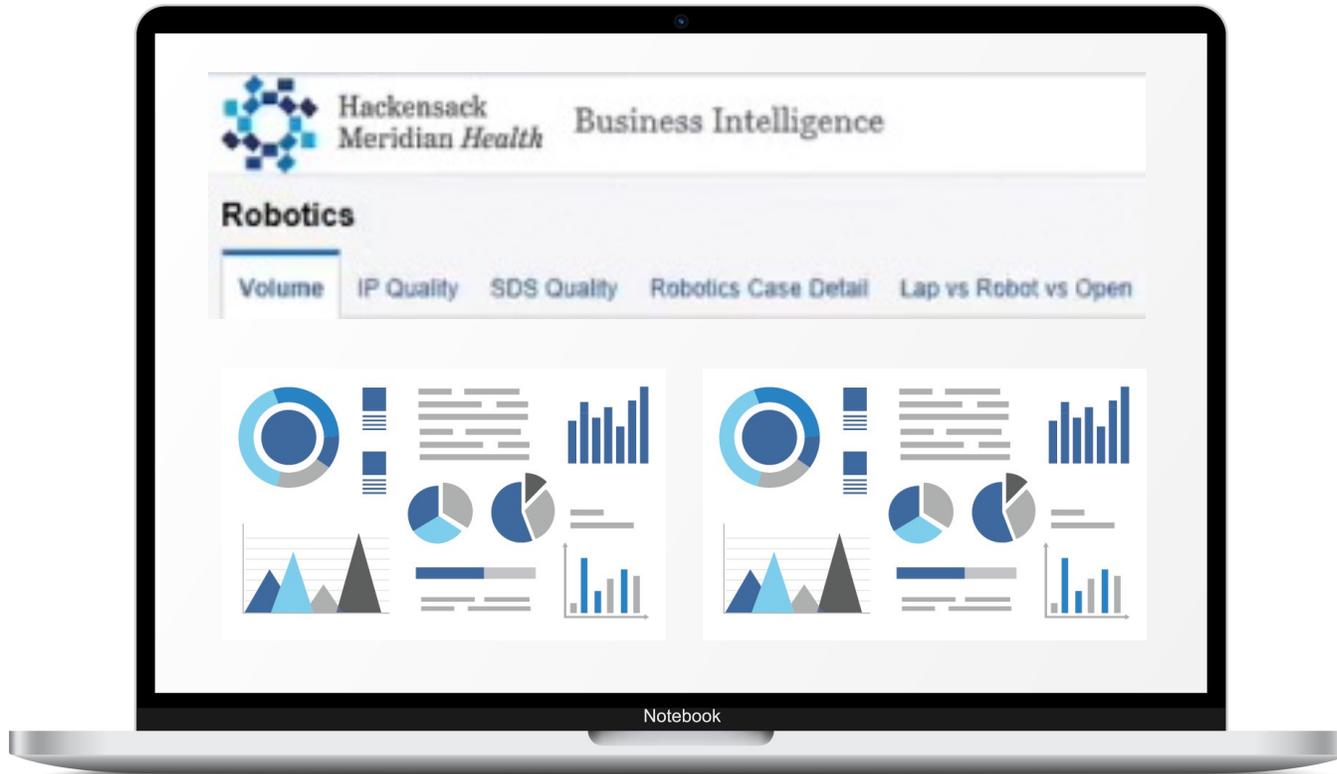
Leverage Data to Gain Alignment for Goal Achievement



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Validation of Metrics & Data - The Esl's Role



Mission Critical

- Build dashboards to manage the program
- Provide feedback to providers
- Evaluate value the program delivers

Robotics Dashboards

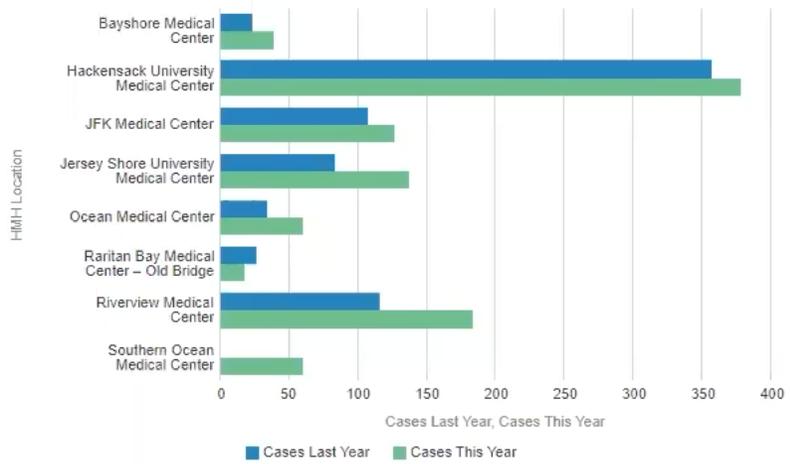
Volume IP Quality SDS Quality Robotics Case Detail Lap vs Robot vs Open

This dashboard contains Epic data **ONLY**
 Dashboard shows all OR Cases with procedures that include "robot" in the description.

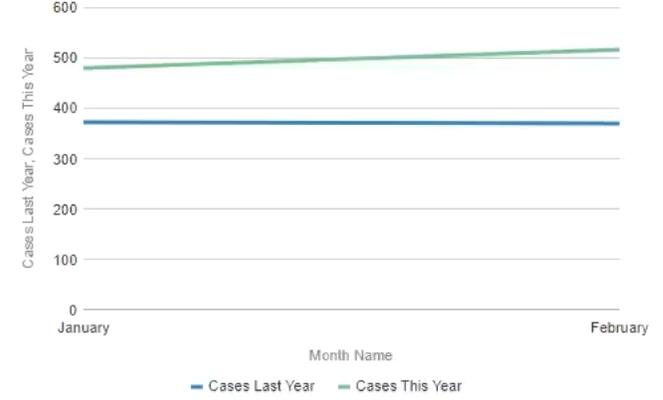
All Robotics Cases
 Distinct Optime Case Number Count
 Panel Role Num = 1
 Panel Num = 1
 Panel Sequence Num = 1
 Includes Inpatient and SDS

HMH Location	Cases Last Year	Cases This Year	Variance
Bayshore Medical Center	23	39	16
Hackensack University Medical Center	357	378	21
JFK Medical Center	107	126	19
Jersey Shore University Medical Center	83	137	54
Ocean Medical Center	34	60	26
Raritan Bay Medical Center – Old Bridge	26	17	-9
Riverview Medical Center	116	183	67
Southern Ocean Medical Center	0	60	60
Grand Total	746	1,000	254

Facility Volume (LY vs TY)



Network Volume (LY vs TY)



Refresh - Export

Robotic Cases by Surgeon / Procedure Name

Surgeon Speciality

Surgeon Speciality	OR Cases (D Count)			Total
	I/P	O/P	SDS	
Bariatric Surgery	5		27	32
Cardiac Surgery	5			5

Average Supply Charge

Rev Code 270/272 - Surgical Supply (Sterile & General)

Quantity Amount is the number of items used
 Tx Amount is the total transaction charge amount for each item/case
 Charge Avg is the average charge amount for each item/case

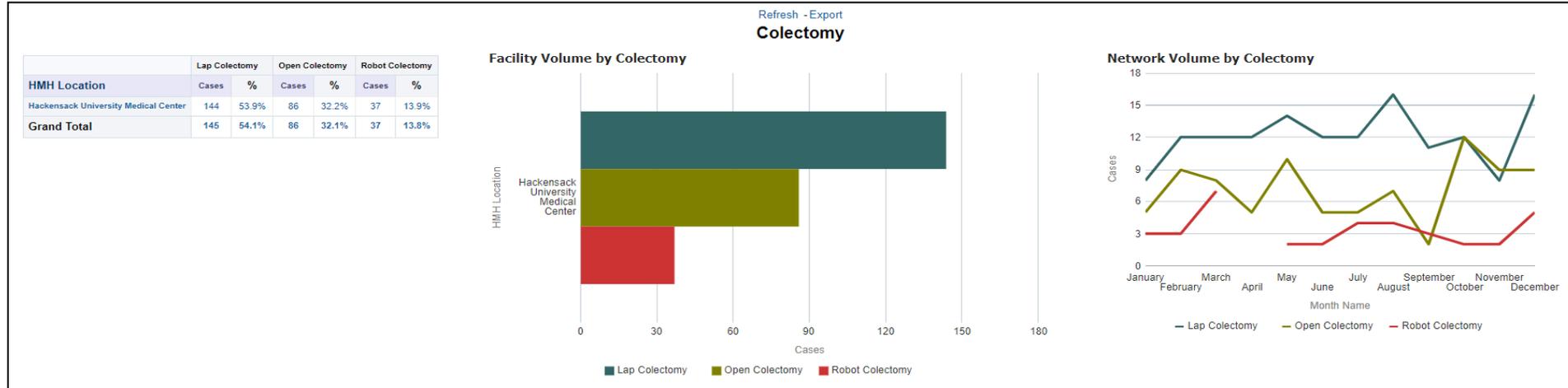
Surgeon

All Robotics Cases
 Distinct Optime Case Number Count
 Panel Role Num = 1
 Panel Num = 1
 Panel Sequence Num = 1
 Includes Inpatient and SDS
 Month

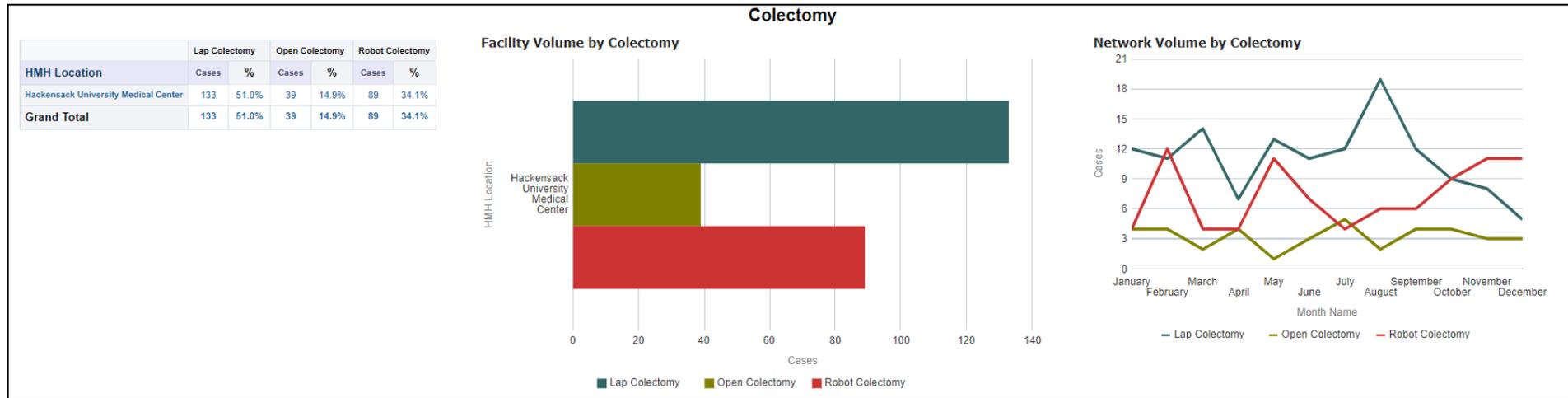
Address the Right Opportunities at the Right Time

Commit to More MIS < Open

2016



2021



Challenge the Status Quo

Debunk the myths with your own data

Hackensack University Medical Center – cholecystectomy data review

Modality	Commercial Payer Mix	Blended Revenue Per Case	Direct Cost Per Case	Margin Per Case
Lap	39%	Lower	Higher	Lower
Robotic	56%	Higher	Lower	Higher
% Difference (Robotic to Lap)	44%	18%	-3%	131%

Establish the Right Structure for your Program and System



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Implementation of Quarterly Task Force Meetings

Strategies driven by:

- Executive Leadership
- Clinical Excellence (*Executive Surgeon Leaders*)
- Operational Excellence (*OR Leadership*)

**Intuitive representation supported with data insights*



HUMC Task Force Key Focus Areas And Results



- ✓ 24/7 Access to da Vinci Technology
- ✓ Increase in Complex Cases
- ✓ Increase Inpatient Volume
- ✓ Procedure Standardization
- ✓ Decrease OR Time
- ✓ Improve Set-Up Time

Collaborate to Scale Best Practices



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HMH System-wide Robotic Project Charter

<p>Executive Sponsor: Ihor Sawczuk</p> <p>Subgroup Chair: Terri Freguletti</p> <p>Clinical Lead: Dr. Michael Stifelman</p> <p>Subgroup Members: Robert Penny (RMC) David Dupree (RMC) Michael Lasser (JFK) Seth Kipnis (JSUMC) Karim ElSahwi (JSUMC) Tom Lake (JSUMC) Mina Fam (OMC) Emad Rizkala (BMC) Hung Nguyen (BMC,) Steven Pereira (HUMC) Nabil Rizk (HUMC) James Saidi (MMC) Amit Trivedi (PVMC) Harvey Rainville (MMC) Mohammed Quadri (Network Strategy)</p> <p>IMO Support: Regina Foley (IMO) Janet Egan (Network Project Manager)</p> <p>Ad HOC (or designee): Remo Cefalo (Finance) Michael Scardino (BI) Dorie Klissas (Marketing) Karl Blomback (Purchasing)</p>	<p>Scope:</p> <p>A robotics workgroup of the Surgical Services Council with network-wide focus on the Quadruple Aim (Physician /Patient / Quality/ Finance)</p> <p>Goals:</p> <ul style="list-style-type: none"> Decrease procedure variability through standardization Shorter LOS Reduce readmissions Improve access <p>Other Positive Effects:</p> <ul style="list-style-type: none"> Increase market share and program growth Create vertical integration Building trust with leadership, physicians and staff <p>Process Aims:</p> <ul style="list-style-type: none"> Evaluate and strategize on robotic infrastructure Quarterly task force meetings Partner with BI to create dashboards allowing for digital insights Partner with operative team - anesthesiology, nursing, finance. System wide marketing 	<p>Deliverables:</p> <ul style="list-style-type: none"> Creation of a system-wide dashboard to demonstrate the value of the program Data validation Increase in volume Create standardized credential and re-credential pathway Create resident training program Reduce variability <p>Metrics:</p> <ul style="list-style-type: none"> Reduced LOS by site/procedure (IP LOS CMI Index) Reduced readmission rates (O/E ratio) Increase in volume (+5%) Enhanced patient experience (HCAHPS) Improved patient outcomes (decrease return to OR) Lower total cost of care (contribution margin) <p>Reporting Requirements:</p> <p>HMH Surgical Services Council Steering Committee - every other meeting</p>
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2021 Noteworthy Operational Achievements

24/7 Access

First in world (HUMC)
Cascaded throughout network

Standardized System-Wide Scheduling

Robotic cases and BI

Task Force

Established in all hospitals

Network Engagement

85% attendance at all meetings

Cost Savings

~ \$620,000 Extended Use Instrumentation
~ \$200,000 COVID Relief Program

Enhanced BI Dashboard

Unified Marketing and Website Development

2022 HMH System-wide Robotic Program Goals

Volume

> 5% increase per hospital

System Utilization

> 90 per quarter (360/system)

Finance and Cost Data

Cholecystectomy
Hysterectomy
Inguinal hernia

Standardized Cost

Between hospitals, by procedure

Decrease Variability of Quality Metrics Between Institutions

Identify and decrease LOS outlier procedures
Mortality, readmissions, transfusions

System Credentialing

Ability to proctor within system

Resident Education

Website Optimization

Expand Research Opportunities

Find Value in the Partnership



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Intuitive Ecosystem

Getting the most out of your partnership



Digital

INTEGRATED INTELLIGENCE

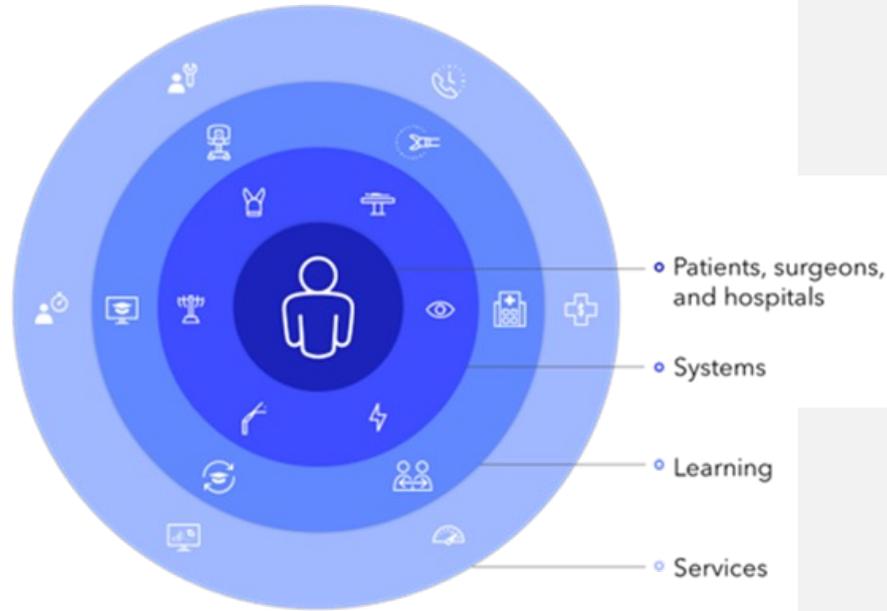
Actionable digital insights across the care continuum



Product Portfolio

CONTINUOUS INNOVATION

30 years of technological innovation for today and the future



MACA

QUANTIFIED PERFORMANCE

Data driven decisions through evidence-based change management



Genesis

PROGRAM EFFICIENCY

Customized solutions to improve your da Vinci Program performance

Key Takeaways



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Key Takeaways

Be the Leader Your Program Needs

(Step outside of your practice to help scale MIS)

Build Your Program's Infrastructure

(from top to bottom)

Collect and Leverage Data

(Data is king - make it happen)

Set Realistic & Attainable Goals

(Consistent, quick win's)

Strategically Improve Your Program

(Hospital/System & Intuitive)

Establish Vertical Alignment by Understanding Priorities

(Quadruple Aim)



Thank You



IMPORTANT INFORMATION

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Limitations of Marketing Guidance

The implementation of a da Vinci Surgery program is practice and hospital specific. Results may vary. Past customer experience does not imply any guarantee of results in practice or program success.

When considering cost-effectiveness of an advanced technology like Intuitive products, we recommend that hospitals perform a full cost-benefit analysis, considering not just the operating room costs but the costs associated with hospital stays, procedure-related complications and hospital re-admissions.

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Depending on an individual hospital's decision for using da Vinci® products, some presented information may refer to unapproved uses (procedures) for the da Vinci systems. For a list of current On Label procedures, refer to the respective da Vinci System User Manual(s).

Da Vinci Xi/X System

The demonstration of safety and effectiveness for the specific procedure(s) discussed in this material was based on evaluation of the device as a surgical tool and did not include evaluation of outcomes related to the treatment of cancer (overall survival, disease-free survival, local recurrence) or treatment of the patient's underlying disease/condition. Device usage in all surgical procedures should be guided by the clinical judgment of an adequately trained surgeon.

Da Vinci SP System (TORS and URO)

The safety and effectiveness of this device for use in the performance of general laparoscopic surgery procedures have not been established. This device is only intended to be used for single port urological procedures and for transoral otolaryngology surgical procedures in the oropharynx for benign tumors and malignant tumors classified as T1 and T2 with the da Vinci EndoWrist SP Instruments and the da Vinci SP surgical system (SP1098).

Da Vinci Instrument & Accessory Care

It is the responsibility of the owner of the da Vinci surgical system to properly train and supervise its personnel to ensure that the instruments and accessories are properly cleaned, disinfected and sterilized as required by the User's Manual. The da Vinci products should not be used in a clinical setting unless the institution has verified that these products are properly processed in accordance with the da Vinci System User's Manual.

Important Safety Information

Serious complications may occur in any surgery, including da Vinci Surgery, up to and including death. Examples of serious or life-threatening complications, which may require prolonged and/or unexpected hospitalization and/or reoperation, include but are not limited to, one or more of the following: injury to tissues/organs, bleeding, infection and internal scarring that can cause long-lasting dysfunction/pain.

Risks specific to minimally invasive surgery, including da Vinci Surgery, include but are not limited to, one or more of the following: temporary pain/nerve injury associated with positioning; a longer operative time, the need to convert to an open approach, or the need for additional or larger incision sites. Converting the procedure could result in a longer operative time, a longer time under anesthesia, and could lead to increased complications. Contraindications applicable to the use of conventional endoscopic instruments also apply to the use of all da Vinci instruments.

For Important Safety Information, indications for use, risks, full cautions and warnings, please also refer to www.intuitive.com/safety.

Individual outcomes may depend on a number of factors, including but not limited to patient characteristics, disease characteristics and/or surgeon experience.

Information Disclosure

The material presented represents the views and opinions of independent surgeons based on their practice and personal experience performing surgery with the da Vinci surgical system. Their experience may or may not be reproducible and is not generalizable.

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Ion is for sale in the US.

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Important Safety Information

Risks associated with bronchoscopy through an endotracheal tube and under general anesthesia are infrequent and typically minor, and may include but are not limited to: sore throat, hoarseness, respiratory complications including dyspnea or hypoxemia, airway injury, bronchospasm, laryngospasm, fever, hemoptysis, chest or lung infection including pneumonia, lung abscess or an adverse reaction to anesthesia. Although rare, the following complications may also occur: bleeding, pneumothorax (collapsed lung), cardiac related complications, respiratory failure, air embolism, or death. As with other medical procedures, there may be additional risks associated with the use of general anesthesia and/or endotracheal intubation which are not listed above; you should consult a health care professional regarding these and other potential risks.

Procedures using the Ion Endoluminal System may be associated with longer procedure and/or longer anesthesia time.

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