

# Physician Leadership Model for the Cardiovascular Service Line

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*CEO, Inova Heart & Vascular Institute*



# Why has Inova Restructured the Leadership of the IHVI Service Line?

- Health care changing rapidly
- Greater emphasis on the following
  - Value
  - Quality
  - Transparency
  - Personalized Medicine
  - Health & Wellness
  - Disease Management
  - Consumerism
- Rationale for inpatient and ambulatory services being managed in an aligned manner



## Agenda

Inova Heart & Vascular Institute Overview

Service Line Organizational Structure

Service Line Development Journey

Future Initiatives



# Inova Heart & Vascular Institute



*Inova Fairfax Medical Campus*



*Inova Alexandria Hospital*



*Inova Loudoun Hospital*



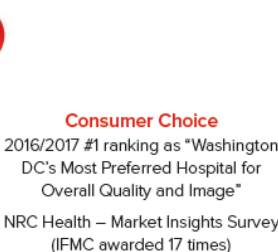
*Inova Fair Oaks Hospital*



*Inova Mount Vernon Hospital*



About Us





# Integration of Cardiovascular Related Specialties

<b>Service Line</b>	Inova Heart & Vascular Institute					
<b>Hospitals</b>	Inova Fairfax Medical Campus	Inova Alexandria Hospital	Inova Loudoun Hospital	Inova Mount Vernon Hospital	Inova Fair Oaks Hospital	
<b>Specialties</b>	Cardiac Surgery	Thoracic Surgery	Vascular Surgery	Invasive Cardiology	Medical Cardiology	Cardiac Rehab
	Advanced HF	Advanced Lung Disease	Heart Transplant	Lung Transplant	Adult Congenital	Cardiac Imaging
	Pediatric CT Surgery	Pediatric Cardiology				



# Affiliations & Partnerships



## Public Partnerships

- FDA
- NHLBI
- University of Virginia
- George Washington University
- Virginia Commonwealth University
- University of Maryland
- Duke University
- George Mason University
- Virginia Tech
- Walter Reed National Military Medical Center

## Private Partnerships

- Washington Redskins
- Washington Nationals
- Synecor
- Pritikin





- 5 hospitals & 27 ambulatory site locations in Northern Virginia & Baltimore
- Offers most advanced diagnostics, care protocols, and specialized services with major focus on patient experience and quality outcomes
- Annually:
  - 1,800 open heart surgeries
  - 7,000 diagnostic and interventional cardiac catheterizations
  - 2,500 electrophysiology procedures
- Referral center for complex coronary, structural heart, vascular disease, lung & heart transplant, and advanced mechanical circulatory support
- Dedicated nursing units





- Team consists of internationally recognized specialists
- Serves diverse patient population (100+ languages), with more than 100 cardiovascular specialists
- State of the art research and academic excellence is a major priority
  - Thrombosis Research and Drug Development Center
  - 24 Bed Phase 1 Clinical Trials Unit
  - Cardiovascular Genomics Center
  - Limb Preservation Fellowship
  - Advanced HF Therapy
  - Advanced Lung & Pulmonary Hypertension
  - Cardiothoracic Surgical Outcomes Research



# Inova Medical Group Footprint

## Legend



Inova Hospitals



Inova Medical Group Cardiology

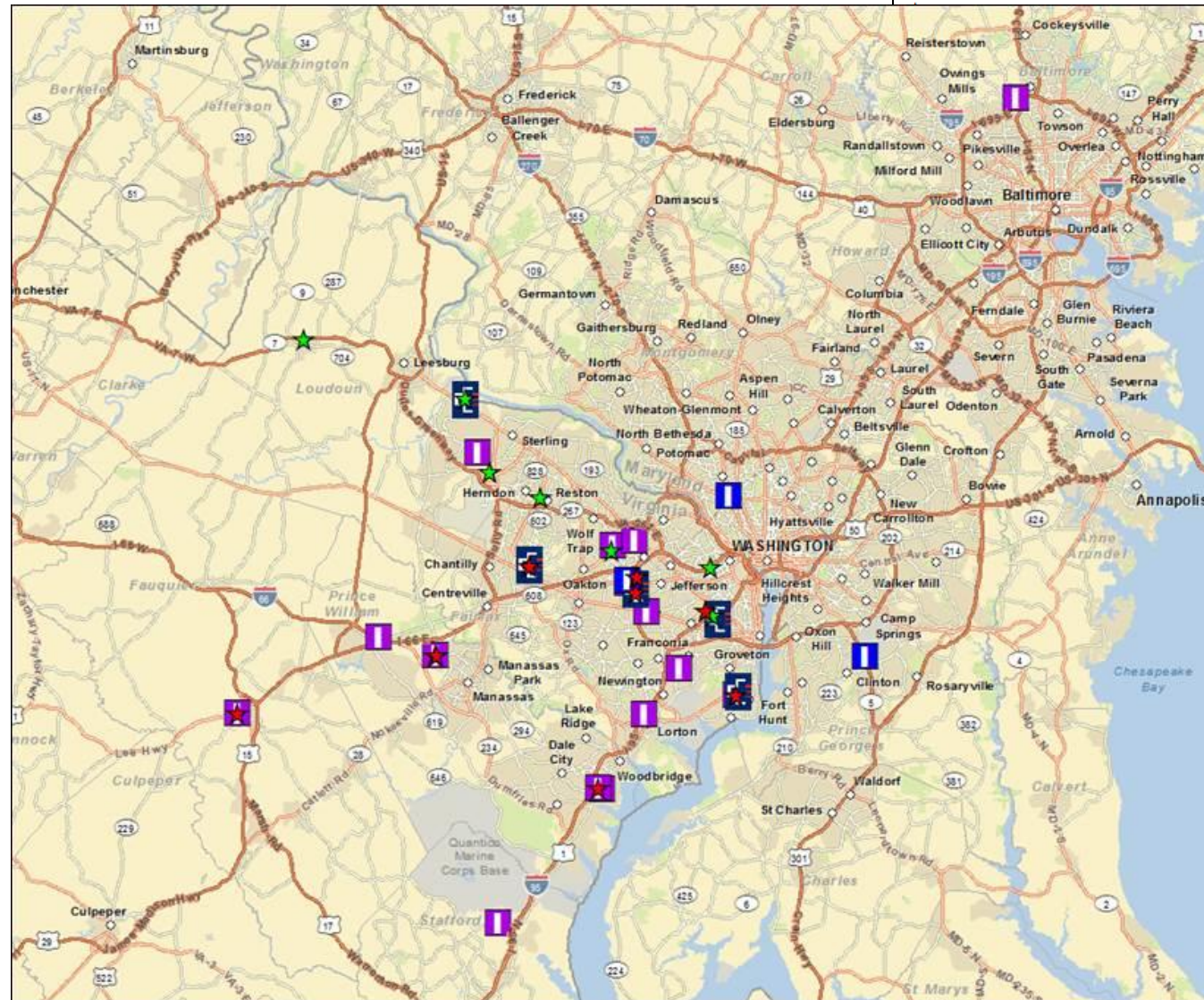


Inova Medical Group Arrhythmia



Virginia Heart

- Employed Specialists (IMG)
  - Cardiologists: 44
  - Electrophysiologists: 7
  - Vascular surgeons: 7
  - Cardiovascular surgeons: 7
  - Interventional Pulmonologists: 1
  - Advanced HF: 5
  - Advanced Lung Disease: 7
- Professional Service Agreement with Large Cardiology Medical Group Located Throughout Northern Virginia (40 MDs)
- Located in 27 offices throughout the region
  - Northern Virginia
  - Baltimore
  - Southern Maryland
  - Chevy Chase
- Employed Practices Generate Over \$100 Million Annually in Operating Revenue





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# Key Elements to IHVI's Service Line Organizational Structure

1. Integrated infrastructure developed around system service line goals
  - a. Monthly & quarterly service line reviews
2. System service line responsibilities defined
3. Reporting relationships developed between system & sites of care defined
4. Tight alignment between physicians and administration across all Inova hospitals and outpatient sites



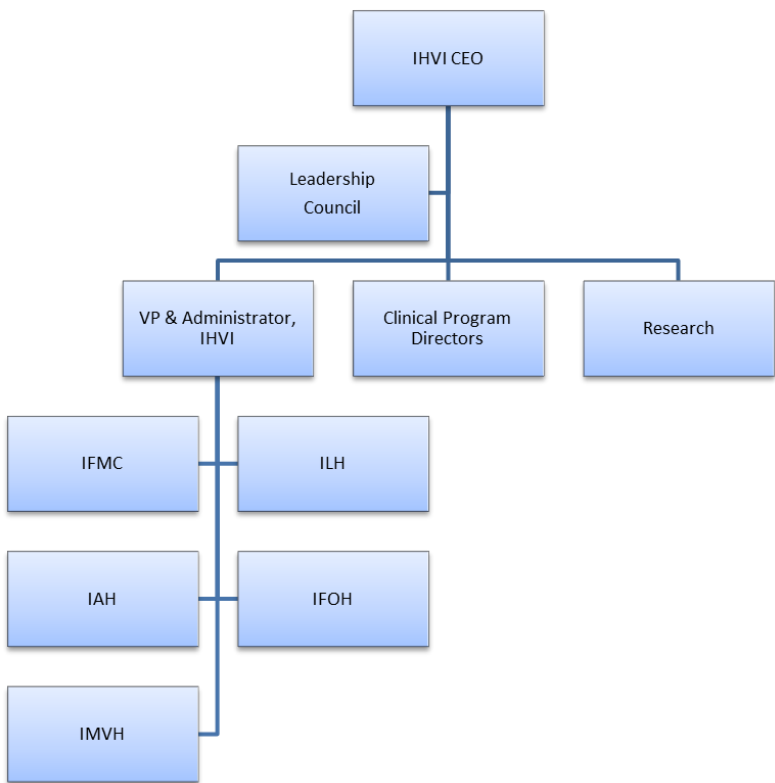
# Key Elements to IHVI's Service Line Organizational Structure

5. Service line governance structure is physician lead
6. Service line metrics evaluated at both system and hospital level
- 7. IHVI CEO is the physician in charge of all services within the heart & vascular institute and ultimately accountable for the P&L**

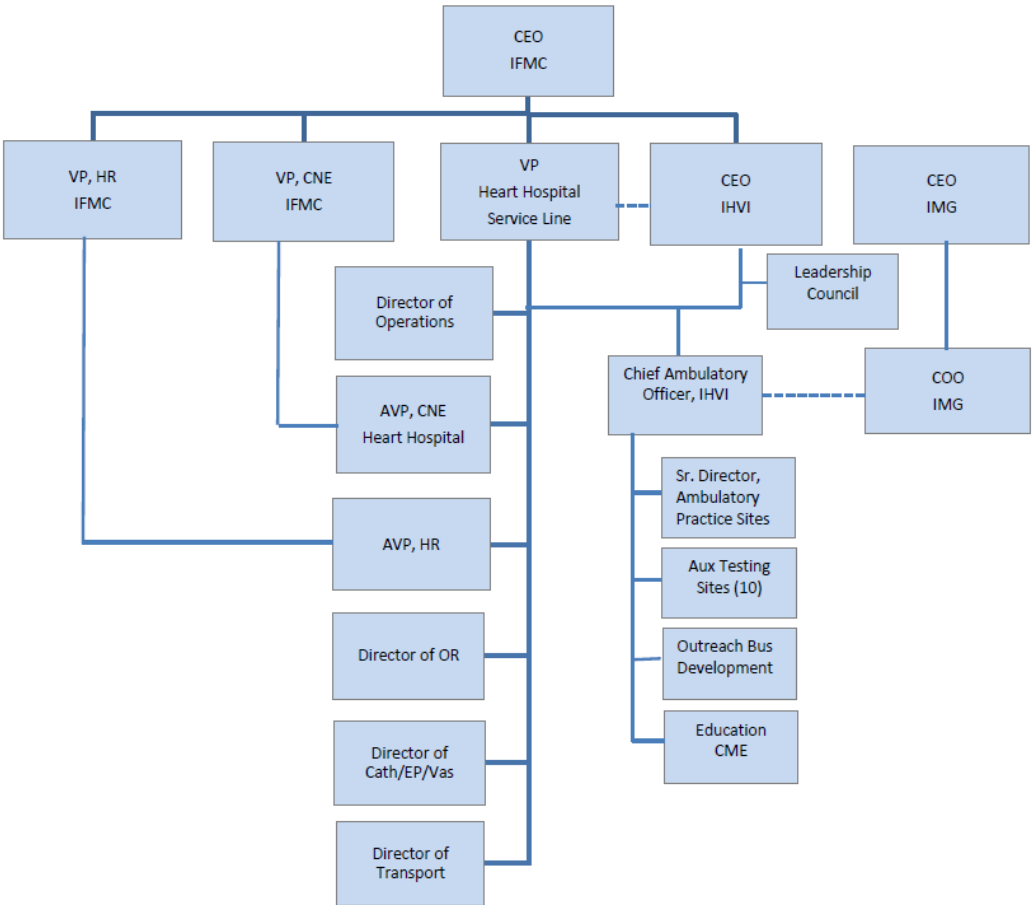


# IHVI Organizational Structure

Previous Org Chart



Current Org Chart



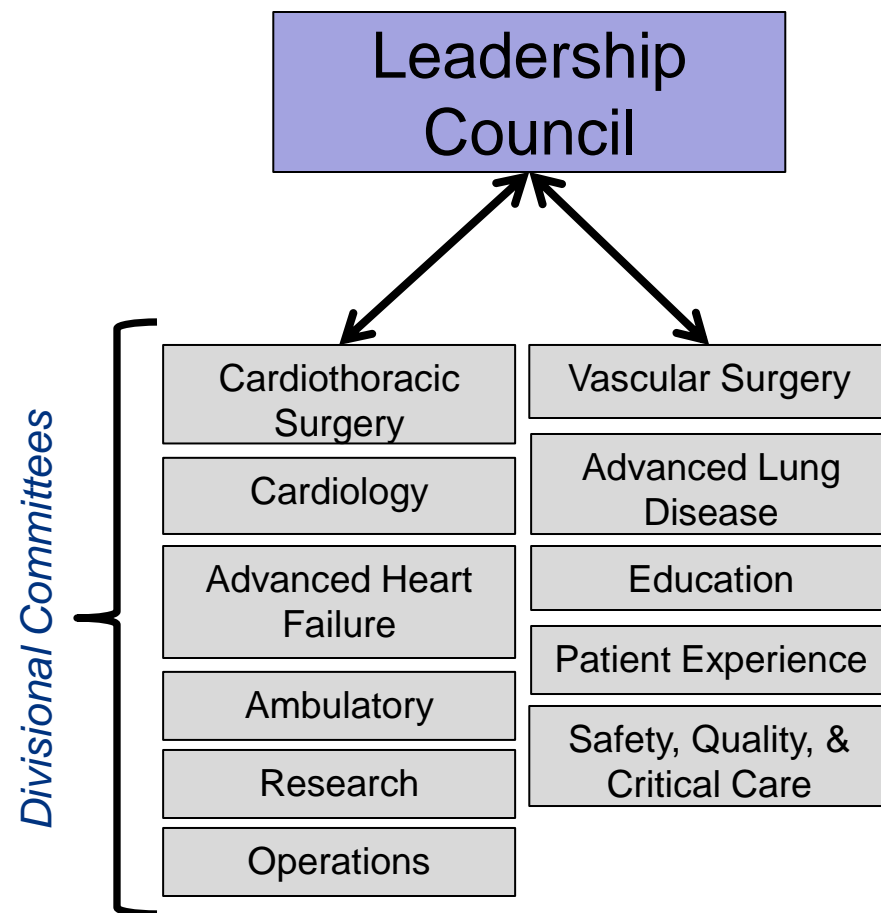


## Leadership Council representation (meets every 2 weeks):

- IHVI CEO
- IHVI Heart Hospital VP
- Cardiothoracic Surgery
- Cardiology (includes interventional & EP)
- Vascular Surgery
- Advanced Heart Failure
- Advanced Lung Disease
- Ambulatory
- Research
- Education
- Safety, Quality, & Critical Care
- Patient Experience

## Leaders Council members all lead divisional committees

- *Example: Cardiology Section, Vascular Operations Committee, etc.*
- *Leaders responsible for communicating information to and from divisional committee members and Leadership Council*
- *Once per month a division reports out on current state (i.e. quality, operations, growth, research, etc.)*





Role	Overview of Responsibilities
<i>CEO, IHVI</i>	<ul style="list-style-type: none"><li>• Leadership of all heart &amp; vascular services across the enterprise</li><li>• Set and implement the institutes vision and strategies</li><li>• Participate in system-wide executive leadership councils</li><li>• National and international ambassador for IHVI</li></ul>
<i>VP, Heart Hospital</i>	<ul style="list-style-type: none"><li>• Operations and strategy of the hospitals across the service line</li></ul>
<i>Chief Ambulatory Officer</i>	<ul style="list-style-type: none"><li>• Operations and strategy of the ambulatory locations</li></ul>
<i>Leadership Council</i>	<ul style="list-style-type: none"><li>• Advisory to CEO</li><li>• Specific roles for each MD (quality, research, safety, etc.)</li></ul>
<i>Clinical Program Directors</i>	<ul style="list-style-type: none"><li>• Responsible for operations, growth, and development of their program</li></ul>



1. Cardiovascular Operations Committee
2. Monthly review of service line at hospital level
3. Quarterly scorecards with system & executive leadership
4. Quarterly check in with IHVI & hospital leadership
5. Monthly review of IMG cardiovascular operations and financial performance
6. Bi-weekly leadership council meetings
7. Section meetings and quality review: cardiology, vascular, etc.



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# Inova Heart & Vascular Institute Development

Component	Pre-2012	Today (2017)	Future (2017+)
<i>Physician Alignment &amp; Engagement</i>	MD's all community based – incentives not aligned	Large employed medical group. Alignment & engagement mixed throughout medical group	Highly engaged with incentives directly aligned to service line goals. MDs engaged in best practice initiatives (clinical, operational, cost effective)
<i>Service Distribution</i>	IHVI = 5 Inova hospitals	Ambulatory footprint in place – duplication of services exists. Hospital services offered being assessed	Programs and specific services distributed rationally across market
<i>Growth Planning</i>	Limited future and geographic programmatic plan. Planning done at Inova hospitals (i.e. siloed)	5 year service line strategic plan being implemented	Coordinated planning to maximize market-wide growth and meet IHVI objectives
<i>Clinical Outcomes</i>	Independent providers – difficult to have protocols in place	Measuring clinical outcomes – not optimally utilizing “big data” & analytics	Consistent “best practices” in place – constantly updated, measured, and improved. Integration of “big data” & analytics to improve best practices. Become a learning health system
<i>Inter-Facility Coordination</i>	Minor service line coordination, mostly centered around IFMC	Large effort to integrate each hospital into the service line	Balancing and maximizing operating unit and Inova wide performance



# Key Elements of IHVI's "Institute Model"

## 1. *Organizational Structure*

- Centralized management of medical group and structure in place to support growth and a unified institute culture

## 2. *Dedicated Infrastructure*

- Core capabilities in place

## 3. *Leadership / Governance*

- Executive team, physician leadership, and supporting management
- Tight alignment between physicians and administration across all Inova OU's and outpatient sites

## 4. *Incentives / Compensation*

- Collective accountability for performance and achievement of initiatives
- Common incentives & compensation
  - Not solely RVU driven
  - Mix of base salary, productivity, quality, service excellence, and strategic goals
- Proportional reinvestment of earnings back into IHVI

## 5. *Success Based on the Following Achievements:*

- Empowered physician leadership
- Optimization of inpatient, ambulatory, and post acute programs
- Improvement in quality, safety, patient satisfaction, growth
- Improved financial performance
- Enhanced physician connectivity



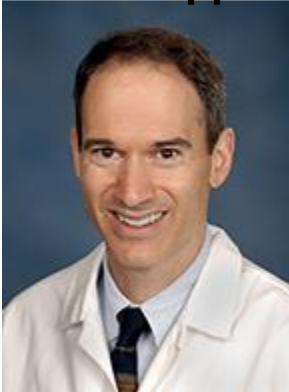
# Recruitment of Physician Leaders

**Dr. Murphy**



*Chief Safety Officer  
(Duke University)*

**Dr. deFilippi**



*IHVI Vice Chief for  
Academic Affairs and  
(University of Maryland)*

**Dr. Gomberg**



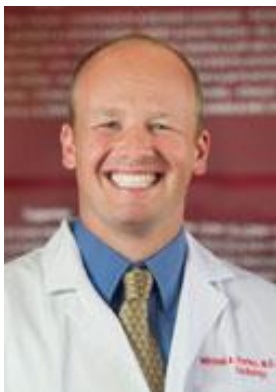
*Pulmonary Hypertension  
(University of Chicago)*

**Dr. Cooper**



*Advanced HF  
(Duke University)*

**Dr. Psotka**



*Advanced HF  
(University of California,  
San Francisco)*

**Dr. Gurbel**



*Research Leader  
(Sinai Hospital &  
Johns Hopkins  
Hospital)*

**Dr. Sarin**



*Cardiovascular  
Surgeon  
(Emory University)*

**Dr. Sherwood**



*Structural  
Interventionalist  
(Duke University)*

**Dr. Neville**



*Vascular Surgeon Leader  
(George Washington  
University)*

**Dr. Quan**



*Vascular Surgeon  
(WellSpan York  
Hospital)*

**Dr. Babrowicz**



*Vascular Surgeon  
(George Washington  
University)*

**Dr. Cohen**

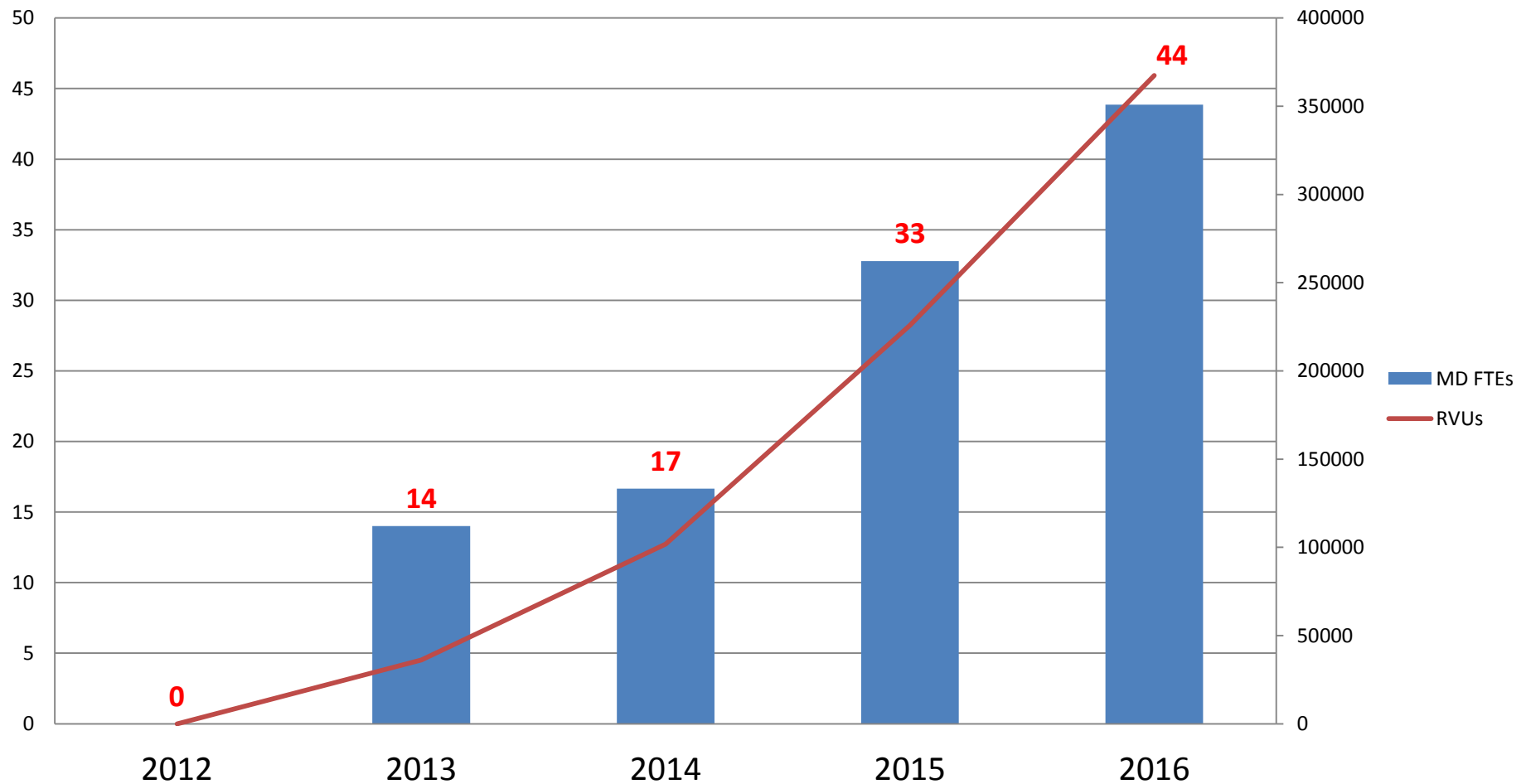


*Pediatric Cardiology  
(Phoenix Children's  
Hospital)*



# Historical Growth of IMG Cardiology

IMG Cardiology Physician Growth  
2012 - 2016





# Example of Successful Integration

*Private Practice to Professional Service Agreement to Employment*

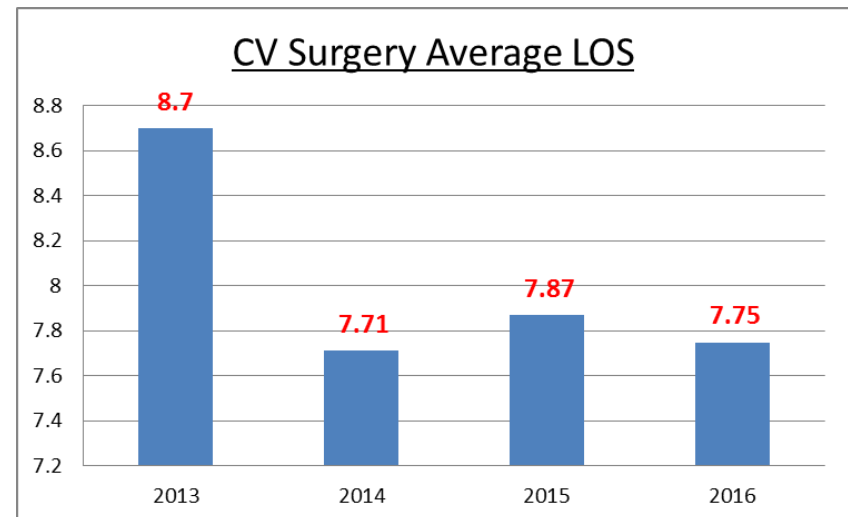
## Cardiac Vascular & Thoracic Surgery Associates

- Founded in 1977
- Premier cardiovascular surgical group in the DC region
- 13 surgeons

Entered a Professional Service Agreement in 2012

Practice Employed by Inova Medical Group in November 2016

- 10 of 13 surgeons employed

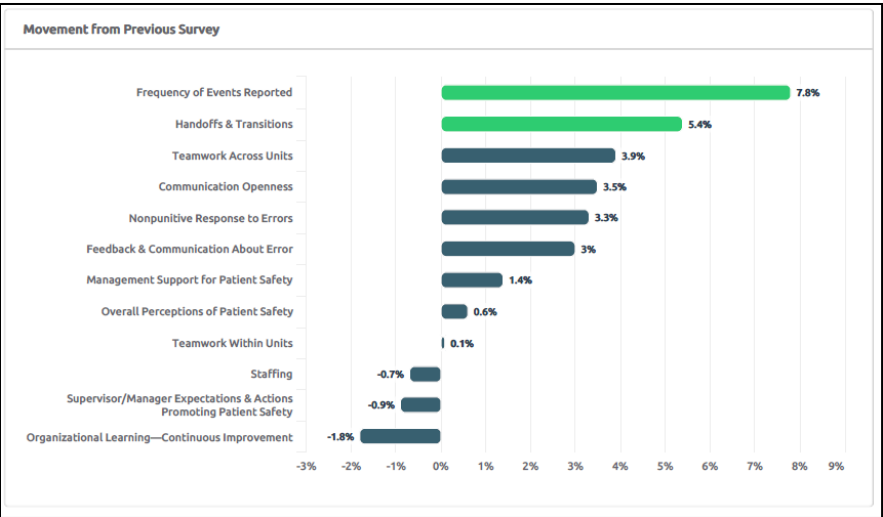




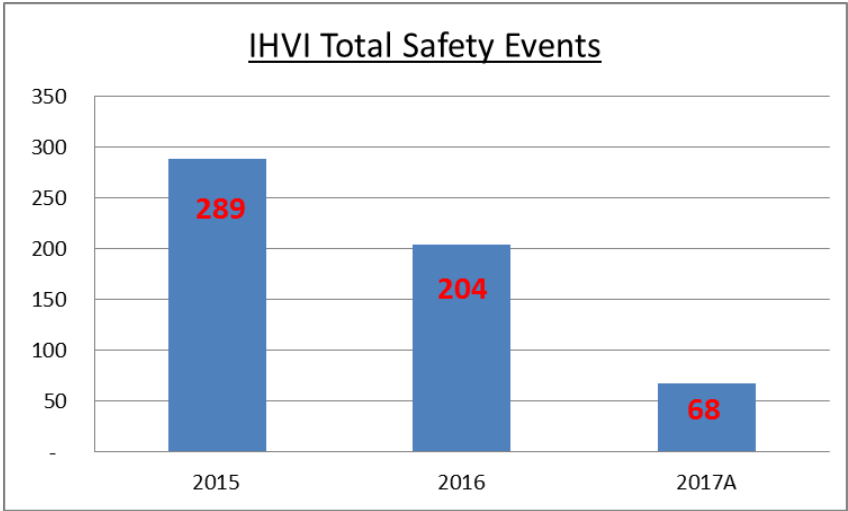
# Early Success of Alignment

Quality, Safety, & Patient Experience

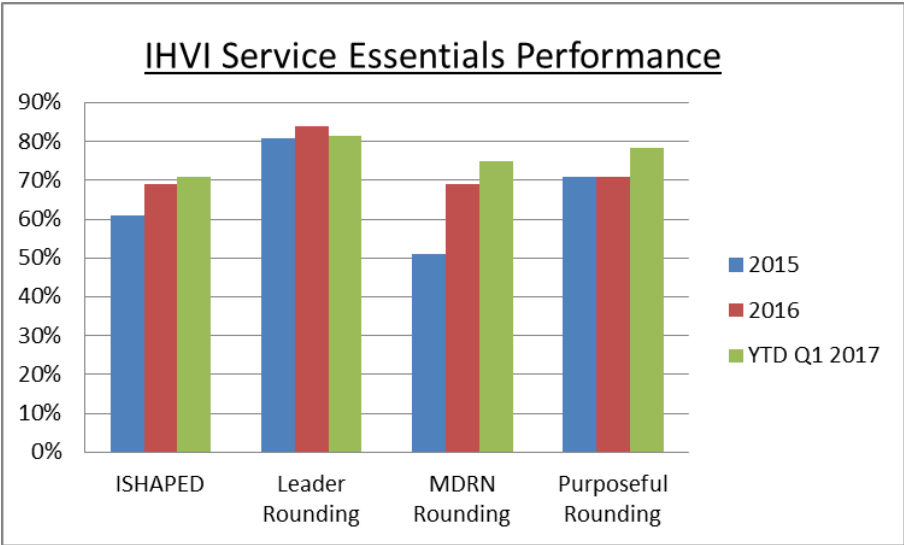
Safety Culture Survey: 2016 vs. 2015



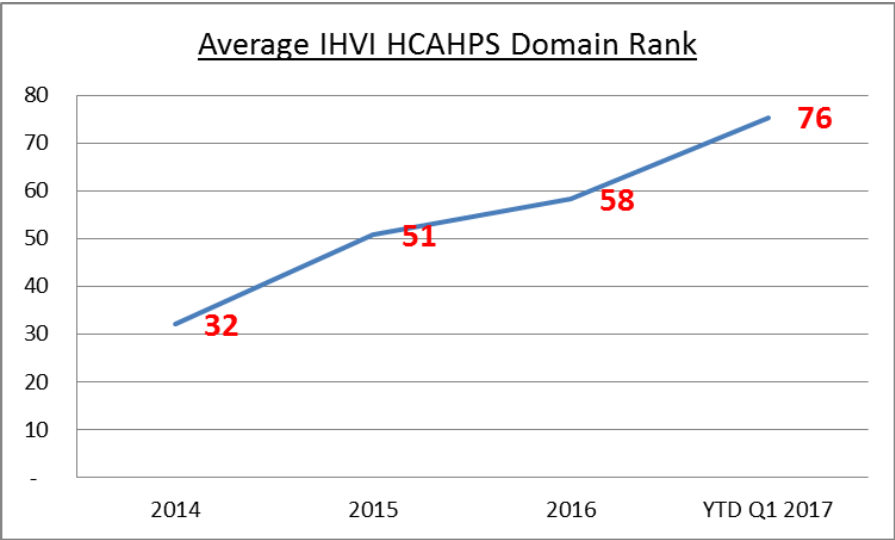
IHVI Total Safety Events



IHVI Service Essentials Performance



Average IHVI HCAHPS Domain Rank





# Early Success of Alignment

## Growth

Encounter Type	2016 Volume	% Change vs. 2015	ALOS Reduction
<i>Inpatient Cardiac &amp; Vascular Surgery</i>	1,465	+12%	-2% (0.12 Days)
<i>Inpatient Medical / Interventional</i>	3,595	+7%	-5% (0.23 Days)
<i>Outpatient Cath / IR</i>	5,047	-2%*	N/A
<i>Outpatient EP</i>	1,925	+13%	N/A

\*Decline Attributed to Intentional Shift of IR Cases Offsite

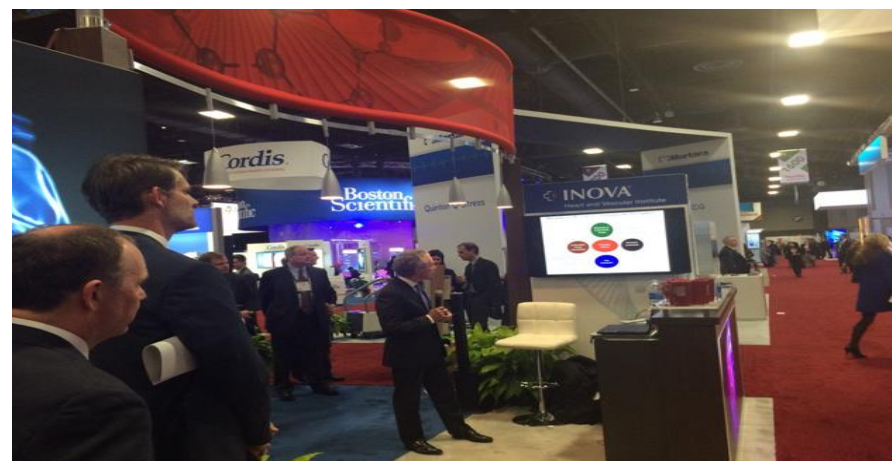
### YTD April 2017:

- **CV Surgery:** volume up +11% vs 2016
- **EP:** volume up +3% vs. 2016
- **Cath:** volume up +4% vs. 2016



# Commitment to Learning Health System

- CME Series
- Visiting Professorships
- External Observerships
- Nursing Specific Conferences



	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV
ACC Event – IHVI Booth “Ted Talks”	•								
“Hot Topics in Cardiology for PCPs” Dinner (Sponsored)		•	•	•	•		•	•	
Cardiovascular Symposium			•						
Visiting Scholars Program – Roche Brazil (25 Pulmonologists)			•						
Distinguished Visiting Professor Series + Grand Rounds			•	•	•		•	•	•
ECMO Symposium				•					
Patient Safety Symposium					•				
Patient Experience Symposium							•		
Advanced Heart Failure Symposium								•	
Heart Recovery/Cardiogenic Shock Symposium (Abiomed)									•



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- Programs of Focus & High Priority Include:
  - Structural Heart
  - Interventional Cardiology & Electrophysiology
  - Vascular Surgery
  - Heart Failure & Transplant
  - ECMO
  - Women's Cardiology
  - Prevention & Population Health

## In 2015...

**34,000** IHVI hospital-based patient encounters

**5,000** Diagnostic Catheterizations

**1,800** PCIs performed  
423 STEMI patients, 96.7% treated received PCI  
within 90 minutes

**446** CABG and CABG Combined Surgeries

**450** Thoracic Surgical Procedures

**900** EP Studies, over **1,000** Ablations

**114** MAZE Procedures for Afib

**526** Total Valve Surgeries

**60** Ventricular Assist Device Cases

**1,800** Vascular Surgeries

**1,500** Interventional Pulmonology Procedures

**135** Thoracic Transplants  
(heart, lung or heart and lung) 2013 - 2015

## Through Early December 2016...

**Celebrated 30th anniversary of our first heart transplant.** Our first patient is one of only a few who has survived longer than 25 years.

**220** peer-reviewed journal articles published

**532 days/13,000 hours ECMO** Life Support

**170** TAVR Procedures

**460** Ablation procedures for Atrial Fibrillation  
at Inova Fairfax Medical Campus

**34** Watchman Procedures for Left Atrial Appendage  
at Inova Fairfax Medical Campus

**Active MitraClip® Program**

**1,330** Advanced Lung Disease and Transplant  
patients



Largest Pulmonary Vascular Disease  
Program in the DC Metro Area and the  
state of Virginia

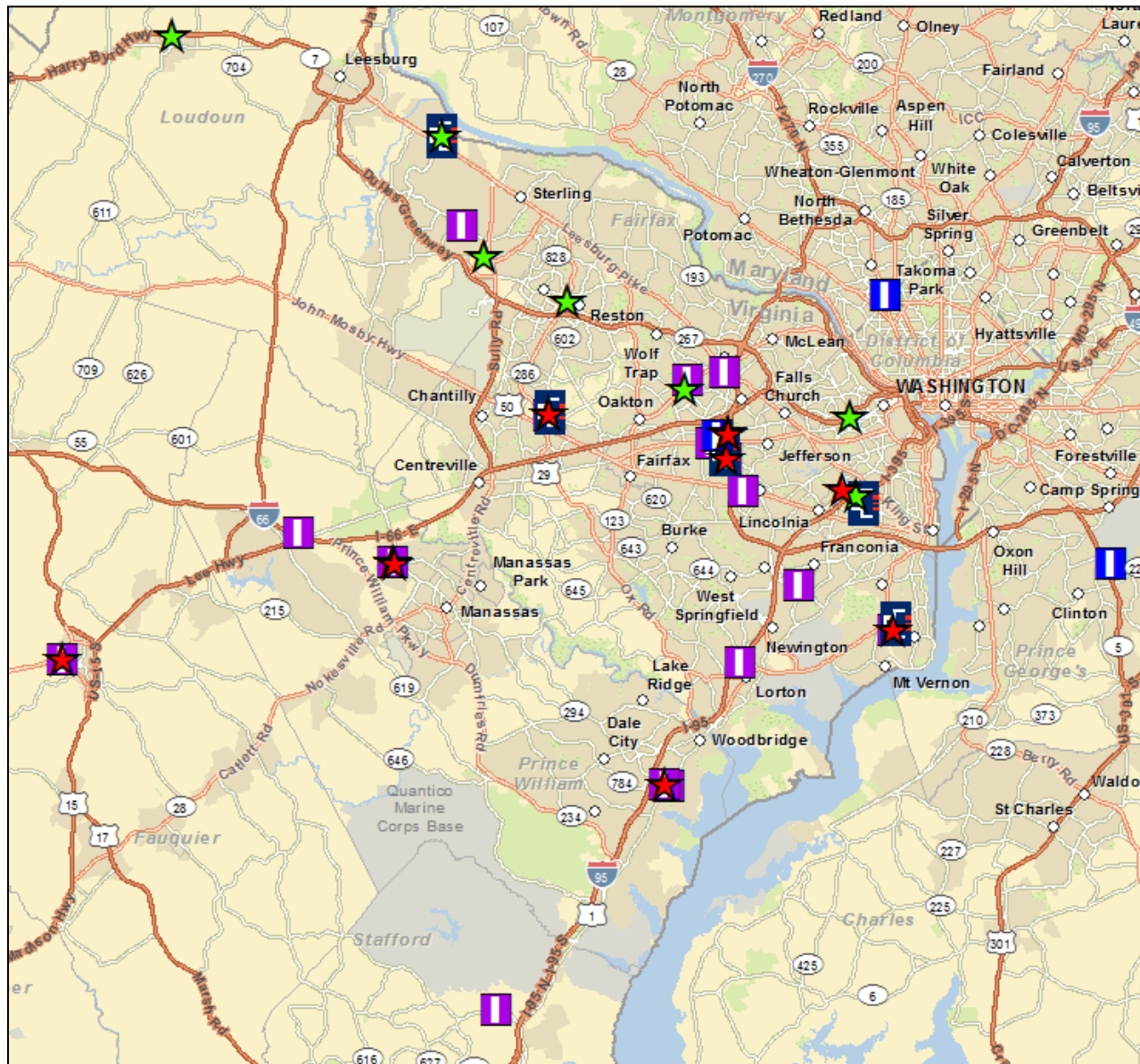
Accredited Comprehensive Care Center  
for Pulmonary Hypertension

Pulmonary Fibrosis  
FOUNDATION **Pulmonary Fibrosis  
Foundation Care Center**

Alpha-1 Antitrypsin Clinical Resource Center



# Integration of IMG Cardiology



- Medical group still organized by practice “pods”
- Remove “pod” mentality and infrastructure to create an IMG Cardiology culture
- Assess regional ambulatory footprint
- Merge practices
- Remove duplication
- Ensure IHVI presence in underserved regions or in areas of high growth potential



# Take Home Messages

- Commitment from senior leadership to the model
- Physician Leadership involved at all levels: inpatient and outpatient services
- Alignment of physicians - employment model (not the only model)
- Build a culture of meaningful shared governance with transparency, trust, structure, and function
- Compensation Model : physician led, transparent, fair, rewards beyond productivity
- Communication and Feedback



## Questions???

*Inova Fairfax Medical Campus*



*Inova Alexandria Hospital*



*Inova Loudoun Hospital*



*Inova Fair Oaks Hospital*



*Inova Mount Vernon Hospital*





# Appendix