

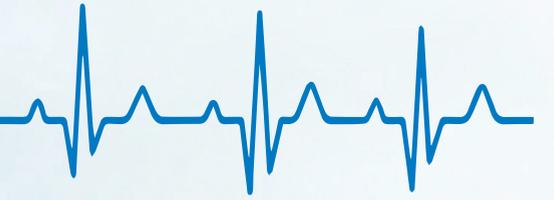
Mapping Out Connected Cardiology's Data-driven Success



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Cardiovascular Business
Cardiovascular Leaders Survey: Vision on Innovation & IT 2020

CVIS Leading the Way in Connected Cardiology



The Cardiovascular Business team's goal for the Cardiovascular Leadership Survey was simple: Take the pulse of cardiovascular health and the business and IT structures supporting it, and gain insight on leaders' vision for the future. We learned a lot—thanks to the 353 healthcare and cardiology leaders who chimed in—and we believe you will too.

The survey results reveal much about the state of the art and goals for the cardiovascular service line in 2020. They also identify the obstacles to supplying cardiology caregivers and administrators with the data, insight and tools they need to monitor and improve the health of patients and health systems.

Taken as a whole, these survey findings offer a roadmap from where we are to where cardiovascular leaders want to go. Reaching the destination will be a years-long journey. There'll be plenty of starts, stops and sprints. Along the way, leaders need to find the best ways to streamline and unify data and information infrastructure across heart health and health systems. They'll have to learn how to use data to improve care, operational performance and patient outcomes. And they'll have no choice but to blaze new trails for moving patients into lower-cost settings while retaining quality, reducing readmissions and optimizing lengths of stay.

Following the lead of progressive health systems, the hub-and-spoke model will build efficiencies as hospitals become the sites for complex procedures and care for the acutely ill. Clinics, surgery centers and

physician offices will offer some procedures while monitoring and treating less urgent needs. People are paramount at every point in the process. Leaders must attract and retain self-motivated physicians, clinicians and staff. The most successful also will find solutions to fight burnout.

Already, data-driven practice decisions are bringing proactive identification and prediction of patterns. Machine learning, deep learning, neural networks and other algorithmic illuminators are pointing the way to greater efficiency for patients as well as clinicians.

Central to this vision of a more connected cardiology, healthcare leaders tell us, is a single, tightly integrated, digital infrastructure uniting technology, people and processes. Data needs to be seamlessly shared across imaging and diagnostic devices, IT systems, EMRs and specialty apps and software. In the best-case scenario, the health of health systems will improve along with that of the communities they serve.

Cardiovascular image and information management systems (CVIS) are the compasses guiding this journey and renovation-in-progress. The best systems are equipped with an information-rich GPS of sorts, guiding drivers to clinical, operational and financial transformation. Integration services optimize connectivity and make the data hum. CVIS help set broad directions, chart specific paths and, where needed, make data-driven course corrections.

This report offers a snapshot of what health system and cardiovascular leaders think. Some of it validates, while some enlightens. It all helps guide leadership on a data-rich and insightful journey into the future.



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This report reflects the input of physicians, executives, IT and administrative leaders in healthcare and cardiology from the United States (97%) and Canada (3%). We focus on the responses of 353 providers and professionals at the helm of healthcare systems, integrated delivery networks, academic medical centers, hospitals, cardiovascular service lines and cardiology departments and physician groups. For a deeper dive into survey demographics, turn to page 15.



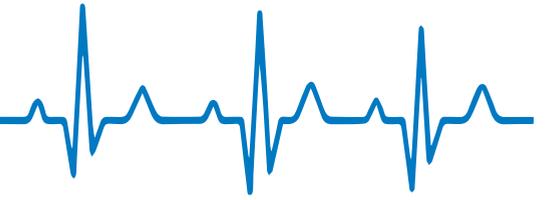
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To view the report online, visit
CardiovascularBusiness.com/CVITreport2020.

The Cardiovascular Business Leadership Survey shows healthcare organizations see cardiovascular image and information management systems as core to clinical and business functions essential for defining a data-rich path forward for more connected cardiology and better patient care.

- 4** Survey at a Glance
- 5** Priorities of the Cardiovascular Service Line
- 6** Defining State-of-the-Art CVIS
- 8** Key Findings
- 12** What Healthcare Leaders Think: C-Suite & Chief of Cardiology
- 13** What Healthcare Leaders Think: CV Service Line Director & Cardiologist
- 14** Meet the Survey Respondents

Survey at a Glance



▶ When we dig to unearth cardiovascular care's top trends, challenges and goals, the findings bring the present into sharp relief: Today's CV leaders are focused on growth and committed to improving both quality of care and operational performance. They also have their eyes on retaining talented staff and reducing clinician burnout.

Setting the strategy

65%

of CVIS strategy and decision-making is controlled by the **C-suite (38%)** and **cardiovascular department heads (37%)**

Standardized care isn't standard

75%

of health systems operate cardiovascular service lines that are **decentralized and lack enterprise-wide standardization** across care, operations and services. Many lack a comprehensive and consistent strategy and approach to cardiovascular services

Expert users

12%

of respondents call their health system 'advanced' with CVIS

50%

define themselves as 'proficient'

Moving to single-vendor CVIS

47%

of health systems have plans in place to move to a single CVIS across the enterprise (25%), or are considering the move (22%)

Leading the charge

39%

of respondents are cardiology and cardiovascular service line directors and managers

Top Trends Facing the CV Service Line

- Transition to value
- Clinical shortages
- Data-driven healthcare
- Patient-generated data (wearables, home health equipment and mobile apps)
- Consolidation of care providers

Top Challenges Facing the CV Service Line

- Increasing operational performance while improving patient outcomes
- Getting patients into lower cost settings without negatively affecting quality metrics
- Attracting and retaining clinical staff
- Clinician burnout
- Reducing readmission while optimizing length of stay

Top Goals of the CV Service Line

- Increase operational efficiency
- Growth
- Improve quality
- Creating and implementing a comprehensive and consistent approach to cardiovascular services
- Improve processes to deliver higher quality care



Priorities of the Cardiovascular Service Line

The CV service line has big goals and is mapping out a route to reach them. Leaders are quite focused but know there are roadblocks and traffic jams in their way.

In the eyes of the cardiovascular service line director, short-term high priorities are: increasing operational efficiency, growth, creating and implementing a comprehensive and consistent approach to cardiovascular services, achieving greater standardization of technology across the health system and improving processes to deliver higher-quality care.

The greatest challenges holding directors back are: increasing operational performance while improving patient outcomes, attracting and retaining clinical staff, combating clinician burnout, reducing readmissions while optimizing length of stay and getting a handle on data analytics.

The majority of respondents tell us they struggle with the lack of a systemwide approach to cardiovascular services. Cath labs run differently, hospitals in the same network use different clinical IT systems and EMRs, imaging results are locked up in separate silos, and billing systems are disparate too. To clear the roadblocks, health systems say, dedicated teams will need to standardize practices that will reduce variance and waste while improving quality, outcomes and operational efficiency.

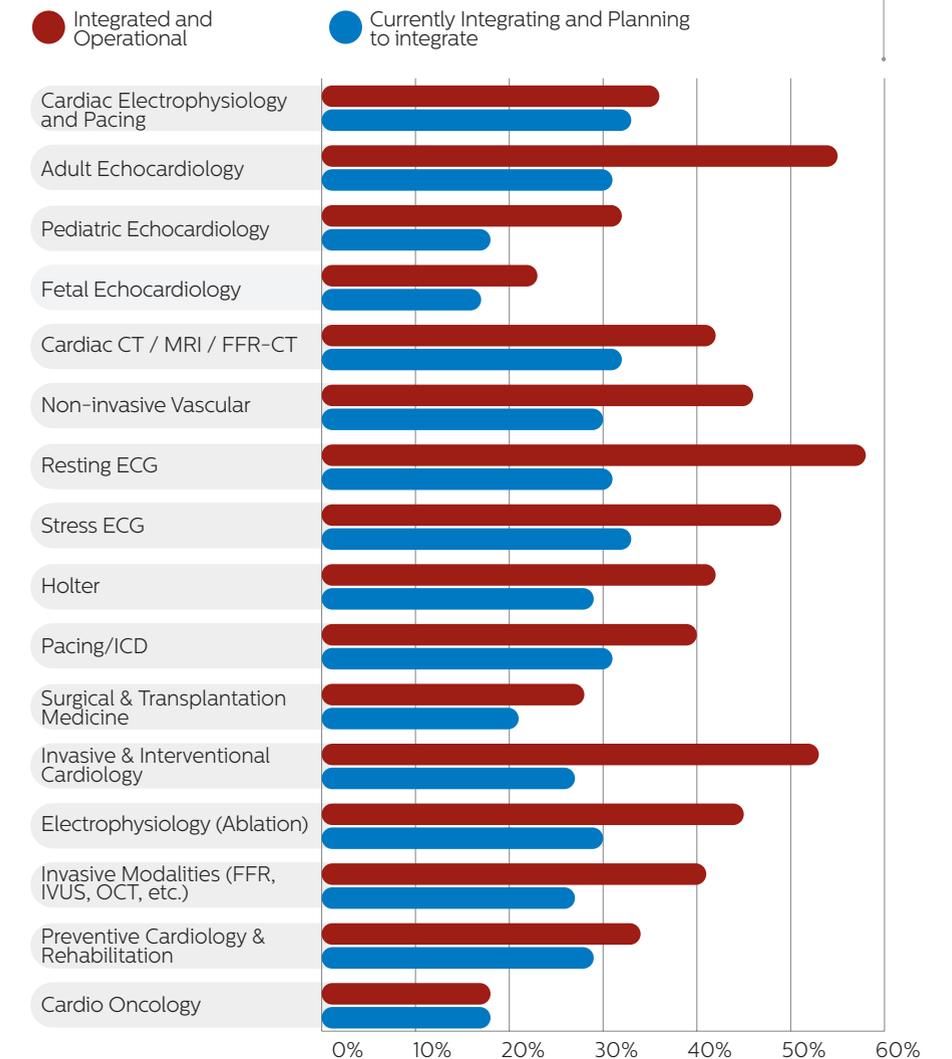
This lack of standard practices puts the brakes on greater efforts to improve care and operations. Data complicates the journey too when it is scattered across the enterprise, hidden away in workstations, modalities and across departments. EMRs often do not connect to the CVIS. About a third of respondents say their health system lacks access to all patient records within their CVIS across all facilities. Another 44% are not able to access diagnostic functionalities such as images, measurements and calculations from the CVIS from their EMR today. Siloed data is stalling leaders' efforts to drive improvement.



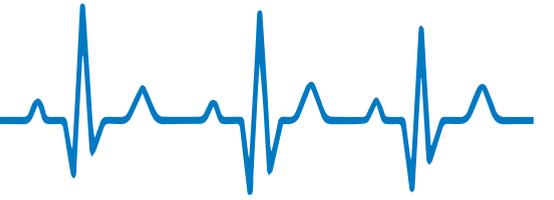
Looking across cardiovascular medicine, we see a service line focused on 2020 goals:

- Increasing operational efficiencies
- Growth
- Improving quality
- Creating and implementing a comprehensive and consistent approach to CVS
- Improving processes to deliver higher quality care

Clinical Areas Currently Integrated/ Plan to Integrate with CVIS



Defining State-of-the-Art CVIS



The purpose of cardiovascular image and information management solutions in 2020 is so much deeper than the five simple words that describe them. CVIS is part:

Multimodality image management; uber information management; workflow streamliner; workload balancer; patient care facilitator; scheduler; procedure documenter; structured report creator; data aggregator and navigator; EMR; IT and device interface; operational performance and outcomes moderator and optimizer; accreditation and reporting enabler; rule definer; analytics reporter; results communicator; charge capturer and more.

Today CVIS sits at the heart of cardiovascular care, uniting and propelling clinical, operational and financial success. CVIS is the compass and brain guiding workflow, data flow, decision-making and driving good outcomes. It is a GPS too for gaining data insight for clinical, operational and financial transformation.

State-of-the-art cardiovascular image and information systems obtain, analyze and share rich, consolidated data from department systems and applications across the cardiovascular service line. Build-as-you-grow is the norm, with single-vendor solutions across entire healthcare enterprises increasing in popularity thanks to the reduced complexity among workflow, IT and integration and omnipotent accessibility to data and tools across the enterprise.

CVIS standardizes practices, improving consistency in diagnosis and outcomes. Seamless access to data enables the delivery of high-quality patient care. It is IT, interfacing and integration services that surround all successful projects. Health systems and experienced vendors must work together to maximize implementation, integration, configuration, training and adoption.

CVIS provides a comprehensive view of each patient, with all images and information in one place, accessible anytime, from everywhere. User-centric, icon-based, task-driven

customization helps physicians create an environment that reflects their individual working style to move quickly and easily across clinical applications and patients. Rich clinical summaries and contextual presentations are available at the point of care.

This is the connected cardiology that leaders agree they need, some have and many more are seeking, our survey respondents tell us. But how to get there?

Step one: Leadership

Healthcare leaders tell us it's the C-Suite and cardiovascular department heads leading the strategic charge around CVIS, with the C-level controlling strategy for 38% of facilities while CV department heads take the lead in 37%. The IT department controls CVIS decision-making in 11% of organizations, while physicians take the lead in 11%. Only 3% of CVIS decision-making is made by external consultants and others. Leaders also recognize the importance of physician input, with 76% saying they're giving physicians more input in CVIS decisions to help achieve the Quadruple Aim and clinical objectives.

Step two: Strategy

The top capabilities organizations require in a CVIS reflect the top challenges and priorities of cardiovascular service line leaders. EMR integration tops the list, followed by



Defining State-of-the-Art CVIS

physician productivity, revenue cycle management, image and report information sharing, collaboration and staff productivity. Continuing down the list, CV departments need procedure charting and reporting, image viewing, business analytics, scheduling and resource management and research.

Step three: Adoption

Health systems report high performance marks in CVIS use, with 50% of survey respondents calling their facilities proficient, meaning partially integrated with most useful connections in place. About 12% describe themselves as advanced, with fully integrated data from all departments with connection to EMRs. Another 24% have a basic CVIS with a foundation in place but lack full integration. Most facilities (68%) have access to all patient records within their CVIS, while a little more than half (56%) can access images, measurements and calculations from the EMR.

Step four: Standardization

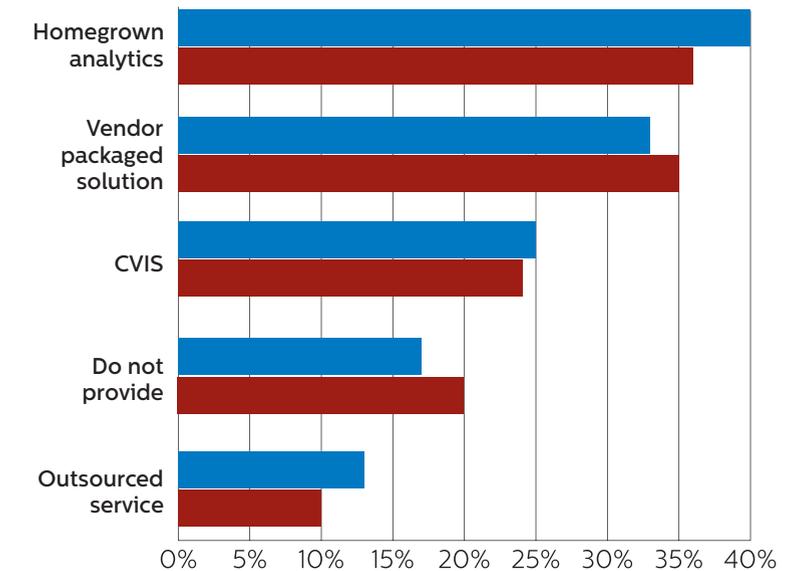
The cardiology IT landscape is complex. The majority of survey respondents (51%) tell us they have multiple CVIS from multiple vendors, while 14% have multiple systems from the same vendor. About 35% of respondent healthcare organizations have chosen to standardize on one CVIS across the health system, which leaders agree is the way forward.

Continuing the theme, some 55% of health systems have two to five hospitals with separate CVIS in place, while 19% have just one hospital with a separate CVIS. For 4% of health systems that number stretches to 21 to 50 and another 4% to more than 50 hospitals. The balance of health systems includes 13% with six to 10 hospitals with separate CVIS and 6% with 11 to 20 hospitals. There's little surprise then that a quarter of health systems have plans in place to move to a centralized CVIS across the health system, while another 22% are considering consolidation.

Step five: Key Performance Indicators

While hospitals and health systems have invested widely in vendor solutions for cardiovascular image and information management, reporting solutions are most often homegrown. When reporting clinical performance indicators, 40% of survey respondents tell us they utilize homegrown analytics, while 33% opt for vendor-packaged report solutions. About a quarter say they use their CVIS for reporting. Outsourcing is the choice for 13%. Homegrown is the most option for reporting clinical analytics indicators, but only edging vendor-packaged solutions by one percentage point (36% vs. 35%). CVIS is the choice for 24% of respondents, while 10% make use of outsourced reporting services. Cardiology needs these tools to look into data because they succeed and fail on a per-patient basis. Every case counts and needs to be analyzed.

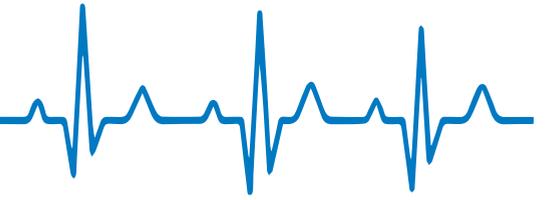
How Healthcare Organizations Report Cardiovascular Performance and Clinical Analytics Indicators



Top Capabilities/Benefits Organization Requires in CVIS

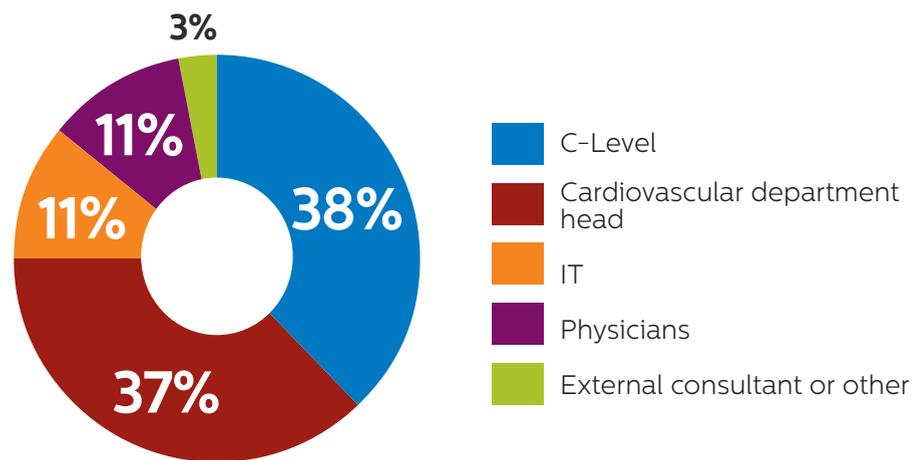
- EMR integration
- Physician productivity
- Revenue cycle (billing, coding and reimbursement)
- Image and report information sharing and collaboration
- Staff productivity

Key Findings



The C-suite and cardiovascular service line are leading the charge on strategic planning for CVIS—with the division of power favoring CV department heads in academia and the C-suite in multi-hospital systems.

Primary Strategy for CVIS determined within organization



When it comes to CVIS strategy across the survey base, C-suite leaders and cardiovascular department heads share the responsibility equally often. But in academic medical centers and multi-hospital systems, the division of power is different. Across academia, cardiovascular department heads (43%) most often set and oversee the CVIS strategy, while the C-level (41%) takes the sextant and helm within most multi-hospital systems.

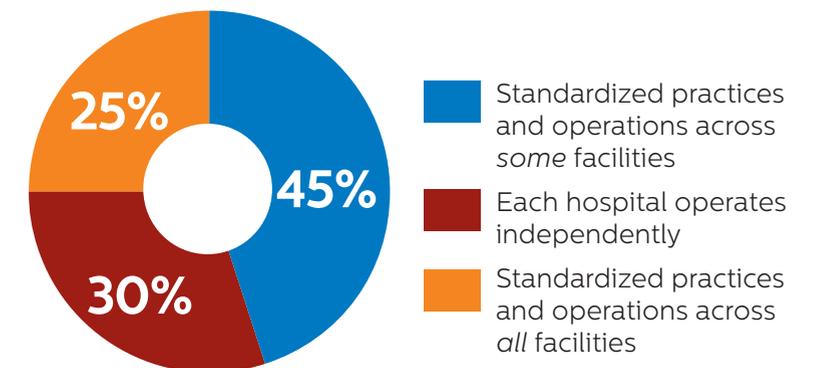
Health systems have moved to single-vendor CVIS across the enterprise; while more are considering a move.

By investing in one vendor for CVIS and integration services, healthcare leaders are sending a message they want to simplify IT burdens with a common infrastructure. Health systems can't afford to have a lot of IT systems that don't talk to one another. Many organizations struggle to support the ongoing interfacing and testing to keep integration functioning. They also want a more holistic view of the patient. So they're busting out of the integration conundrum of multiple systems across the enterprise. A quarter of the survey base are pursuing a single-vendor strategy to CVIS, while 22% are considering the move. Those numbers jump significantly in academic medical centers where 42% are moving to a single-vendor platform across the enterprise, with 26% now considering a move.

Fragmented cardiovascular service lines need to focus more on standardizing operations, practices and care.

Imperatives for improvement include a push to drive proven practices across health systems. About a quarter of survey respondents tell us they have wrapped standardized practices and operations around their whole health system. But almost a third of respondent facilities operate independently. Proven practices, protocols and operations change the face of patient survival. They reduce variance, improve quality, increase operational efficiency and eventually drive down costs.

Scope of Standardization Across CV Service Lines





Lack of financial resources and clear organizational strategy is holding back IT adoption and integration.

Money is a problem, and so is strategy surrounding CVIS. When we zero in on the top financial and technical challenges to CVIS adoption and upgrade, capital and finances are tight, which is no surprise across healthcare. Here's how healthcare leaders rank these difficulties.

Top Financial and Technical Challenges to CVIS Adoption and Upgrade

- Lack of financial resources
- Lack of IT resources for interfacing and integration
- Lack of clear strategy for IT within organization
- Lack of IT resources for hardware and virtualization configuration
- Uncertain or low expectations for the IT benefits for upgrading



Cardiology's challenges focus on patients, performance and getting paid.

Like Moms and coaches often say, we learn more from our troubles than from our triumphs. So when we look at cardiology's chief challenges we get a good picture of both where we are and where facilities, departments and practices want to go. Leaders rank increasing operational performance while improving patient outcomes as their biggest challenge. And we can't forget patient satisfaction and engagement. Driving down cost gets a couple nods as does keeping staff happy. And there's the frustration with keeping up with data, technology and multiple systems and multiple vendors again.



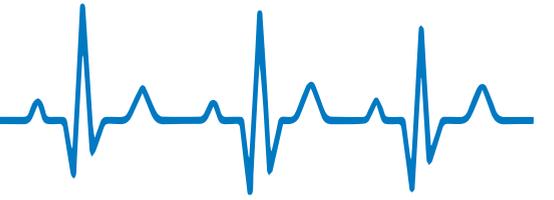
Consolidation of care providers continues to add tension to managing CV health.

Consolidation of care providers ranks a consistent 4th on the top trends lists of chiefs of cardiology, cardiovascular service line directors and cardiologists. That's no wonder, as the consolidation wave that began a decade ago continues. Dealing with the fallout from consolidation has cardiology departments stretched even thinner when new hospitals come on board. Leaders struggle to manage different cath labs, echo systems, clinical IT systems, EMRs, billing systems and more. Clinical practices and processes can differ too. There also can be lingering apprehension and insecurities in the culture around the integration with staff and clinicians.

Top 10 Challenges Facing the CV Service Line

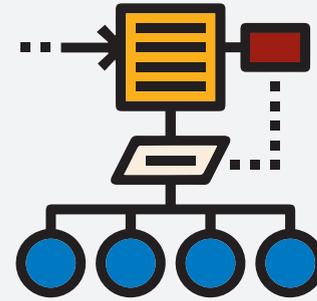
1. Increasing operational performance while improving patient outcomes
2. Getting patients into lower cost settings without negatively affecting quality metrics
3. Attracting and retaining clinical staff
4. Clinician burnout
5. Reducing readmissions while optimizing length of stay
6. Data analytics and management
7. Patient satisfaction
8. Keep up with technology
9. Too little quality face-to-face time with patients
10. Many product vendors but few integrated solutions partners

Key Findings



Siloed data is hindering progress.

Healthcare leaders are counting on data and innovation to solve problems like physician and staff shortages. But as we know, the cardiovascular service line struggles to manage many IT systems and myriad databases and sources. Cardiologists in particular need discrete data to manage complex disease. The numbers respondents report show a lack of access, integrating and connectivity. What they don't show is the frustration of caregivers trying to get data they cannot access or decisions that could have been better made with better data. Is the exasperation fueling burnout? We know data fatigue drives physicians to seek out positions in more IT-friendly environments. And it costs more than \$1 million today to recruit, train, and replace a physician (per the American College of Cardiology, ACC).



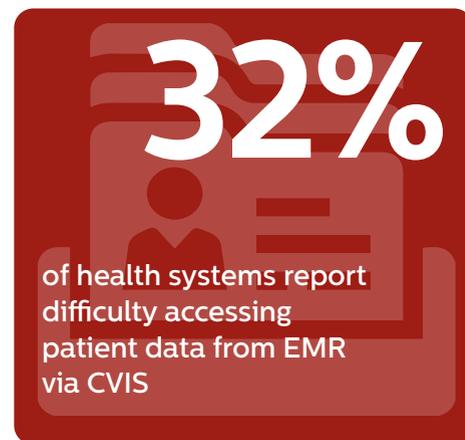
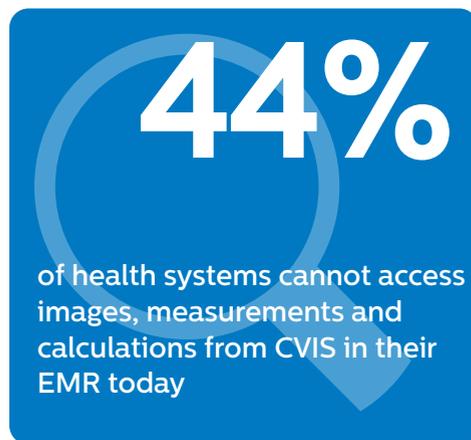
Top Administrative and Clinical Challenges to CVIS Adoption and Upgrade

- Earning physician support and buy-in
- Difficulty integrating cardiology data with EMR
- Inability to connect different vendor devices
- Clinical silos limiting cross-department alignment on a solution
- Lack of leaders' ownership of, and commitment to, clinical workflow solutions



Physicians are playing a larger role in decisions around CVIS and IT to achieve the Quadruple Aim.

Some 76% of healthcare leaders tell us they are engaging physicians more often in IT decision-making in the name of the Quadruple Aim. They rank earning physician support and buy-in No. 1 on the list of challenges to CVIS adoption and upgrade. Physician leaders, namely chiefs of cardiology and cardiologists, are key members of steering committees purchasing and upgrading CV IT. They know what works well and where significant improvements to IT, training and strategy should be made. They're strong advocates, eager to spread the word to the C-suite, IT and other key decision-makers to encourage top-down ownership and commitment to stronger clinical workflow solutions. That need for ownership and commitment ranks 5th among the top administrative and clinical challenges to CVIS adoption and upgrade.





Academic medicine zeroing in on AI-enabling the enterprise—and leading the charge to more coordinated CVIS and data access.

When we listen to the voice of academic medicine—which represented 14% of respondent organizations—some slightly different tunes emerge. These traditional trailblazers rank artificial intelligence among their top trends, a topic not named by the broader survey base. They also are ahead of the curve in deploying a single CVIS across the enterprise, with 25% saying they’ve already made the move. More facilities are considering the same move, with 42% telling us they have plans in place and 26% are considering it. Data also flows more freely across the enterprise with 85% reporting access to all patient records within CVIS across all facilities and 68% can access images, measurements and calculations from their EMR. Good data and actionable analytics are a strategic and competitive differentiator.

Healthcare leaders need ways to burn out physician burnout.

Clinician and physician burnout rank among the top 5 challenges on the minds of the survey base and specifically C-suite execs, cardiologists and CV service line directors. Across medical specialties, half of physicians experience symptoms of burnout. Statistics are not as common among clinicians but the battle is the same. The consequences are painful for caregivers and to patients too, bringing harm and leading to excessive cost and burden to the healthcare ecosystem. Among ACC’s recommendations to quell burnout is readdressing the EMR time burden and the reduction of face-to-face time with patients. EMRs lack diagnostic tools for cardiology, and cardiologists often swivel amongst several IT systems to find key information. To ease stress and burnout, CVIS needs to be the cardiologist cockpit, a one-stop-workshop for intuitive review of data, images, waveforms and analysis tools, workflow and structured reporting.



Top Capabilities/Benefits Organization Requires in CVIS

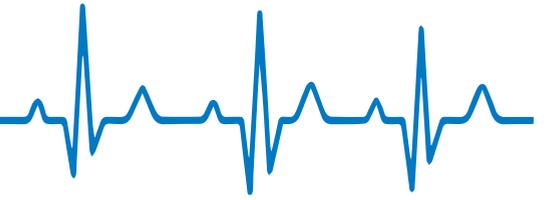
- EMR integration
- Physician productivity
- Revenue cycle (billing, coding and reimbursement)
- Image and report information sharing and collaboration
- Staff productivity



Patients need to be cared for within the right level of acuity.

To optimize length of stay, reduce readmissions and move patients into lower cost settings—three of the top challenges facing the CV service line—healthcare providers need to elevate or deescalate patients to an appropriate level of care at an appropriate facility. This is what will build quality and economic sustainability. The key to good outcomes is accessing and leveraging actionable data, good communication and collaboration and well-orchestrated, team-based care.

What Healthcare Leaders Think



C-Level Executive

TOP TRENDS facing the CV service line

- ▶ Transition to value
- ▶ Clinician shortages
- ▶ Data-driven healthcare
- Artificial intelligence
- Patient-generated data (wearables, home health equipment, mobile apps)

TOP GOALS for CV service line/practice over the next year

- Reduce costs
- Growth
- Improve quality
- Improve staff satisfaction
- Increase operational efficiency



TOP CHALLENGES facing the CV service line

- Increasing operational performance while improving patient outcomes
- Getting patients into lower cost settings without negatively affecting quality metrics
- Clinician burnout
- Attracting and retaining clinical staff
- Patient satisfaction

TOP ADMINISTRATIVE/CLINICAL CHALLENGES to CVIS adoption/upgrade

- Earning physician support and buy-in
- Vendors unable to support current clinical requirements
- Difficulty integrating cardiology data with EMR
- Uncertain or low expectations for the clinical/patient benefits for adopting/upgrading
- Inability to manage potential changes in the current workflow

TOP FINANCIAL/TECHNICAL CHALLENGES to CVIS adoption/upgrade

- Lack of financial resources
- Lack of IT resources for interfacing and integration
- Vendors unable to support current IT requirements
- Uncertain or low expectations for the IT benefits of upgrading
- Lack of IT resources for hardware and virtualization configuration

Chief of Cardiology

TOP TRENDS facing the CV service line

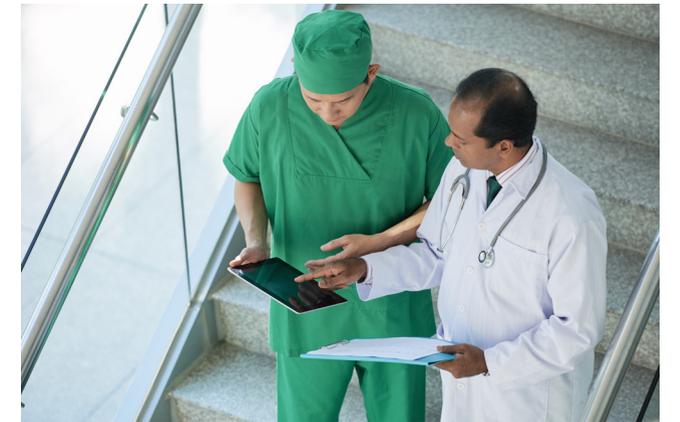
- ▶ Transition to value
- ▶ Clinician shortages
- ▶ Data-driven healthcare
- Consolidation of care providers
- Consumerism

TOP GOALS for CV service line/practice over the next year

- Creating and implementing a comprehensive and consistent approach to cardiovascular services
- Optimize operational outcomes
- Increase patient satisfaction
- Improve quality
- Working toward standardizing on one platform across the health system for EMR and IT systems

TOP CHALLENGES facing the CV service line

- Increasing operational performance while improving patient outcomes
- Getting patients into lower cost settings without negatively affecting quality metrics
- Too little quality face-to-face time with patients
- Building a marketable reputation for excellent outcomes
- Keep up with technology

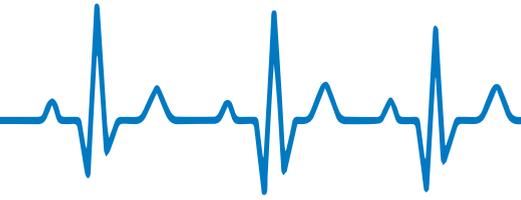


TOP ADMINISTRATIVE/CLINICAL CHALLENGES to CVIS adoption/upgrade

- Uncertain or low expectations for the clinical/patient benefits for upgrading
- Earning physician support and buy-in
- Inability to connect different vendor devices
- Lack of leaders' ownership of and commitment to clinical workflow solutions
- Difficulty integrating cardiology data with EMR

TOP FINANCIAL/TECHNICAL CHALLENGES to CVIS adoption/upgrade

- Lack of IT resources for interfacing and integration
- Lack of clear strategy for IT within your organization
- Lack of financial resources
- Uncertain or low expectations for the IT benefits for upgrading
- Lack of vendor understanding



What Healthcare Leaders Think

CV Service Line Director & Administrator

TOP TRENDS facing the CV service line

- ▶ Transition to value
- ▶ Clinician shortages
- ▶ Data-driven healthcare
- Consolidation of care providers
- Patient-generated data (wearables, home health equipment, mobile apps)

TOP GOALS for CV service line/practice over the next year

- Increase operational efficiency
- Growth
- Creating and implementing a comprehensive and consistent approach to cardiovascular services
- Achieve greater standardization of technology across the health system
- Improve processes to deliver higher quality care

TOP CHALLENGES facing the CV service line

- Increasing operational performance while improving patient outcomes
- Attracting and retaining clinical staff
- Clinician burnout
- Reducing readmissions while optimizing length of stay
- Data analytics and management



TOP ADMINISTRATIVE/CLINICAL CHALLENGES to CVIS adoption/upgrade

- Inability to connect different vendor devices
- Lack of administration support or understanding
- Lack of leaders' ownership and commitment to clinical workflow solutions
- Difficulty integrating cardiology data with EMR
- Lack of clinical resources needed to support an upgrade

TOP FINANCIAL/TECHNICAL CHALLENGES to CVIS adoption/upgrade

- Lack of financial resources
- Lack of clear strategy for IT within your organization
- Lack of IT resources for integrating and integration
- Lack of project-management resources
- Lack of IT resources for hardware and virtualization configuration

The Cardiologist

TOP TRENDS facing the CV service line

- ▶ Transition to value
- ▶ Clinician shortages
- ▶ Data-driven healthcare
- Consolidation of care providers
- Patient-generated data (wearables, home health equipment, mobile apps)

TOP GOALS for CV service line/practice over the next year

- Improve quality
- Increase operational efficiency
- Reduce costs
- Growth
- Achieve greater standardization of technology across health system



TOP CHALLENGES facing the CV service line

- Increasing operational performance while improving patient outcomes
- Clinician burnout
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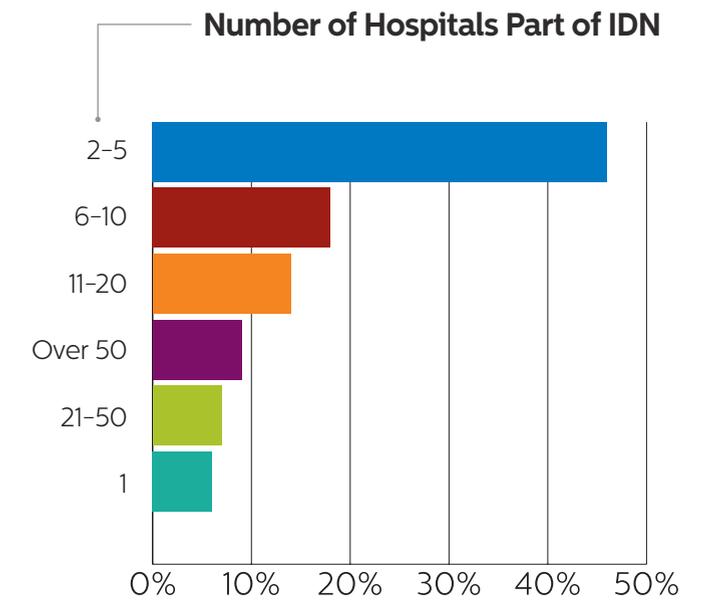
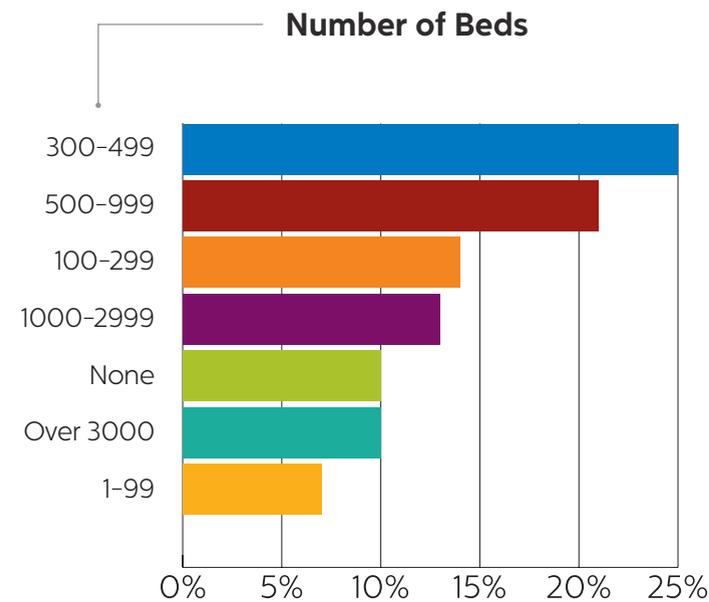
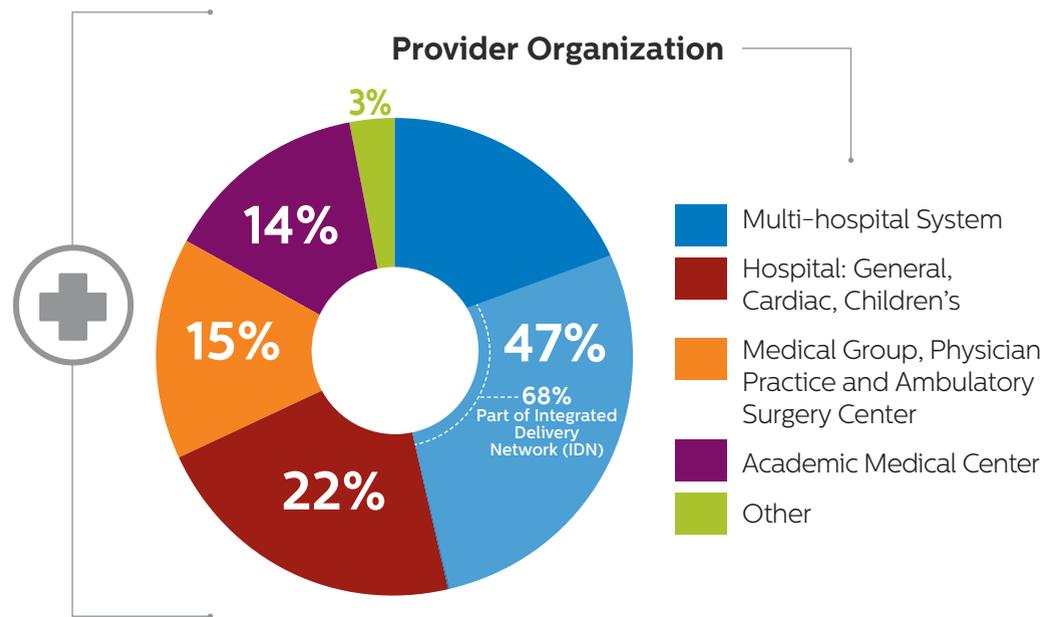
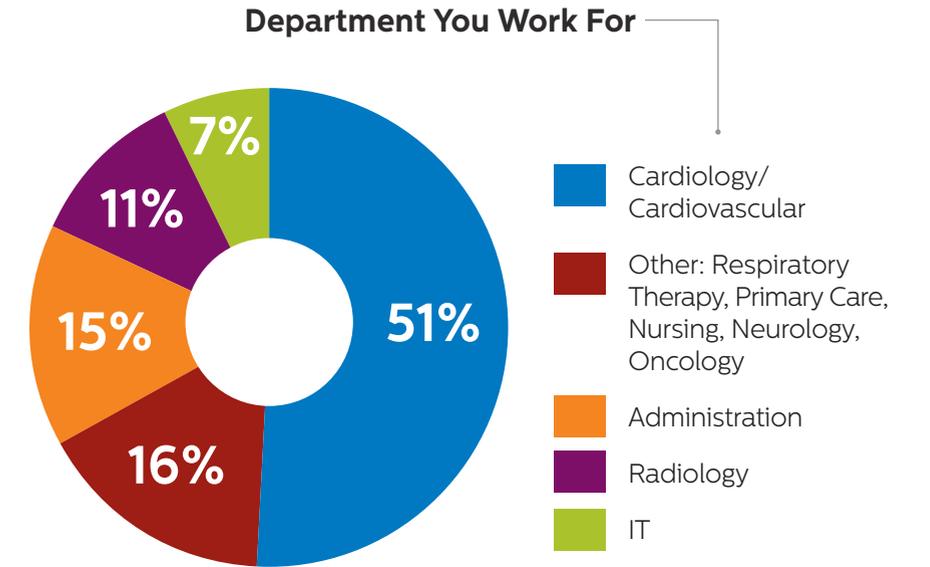
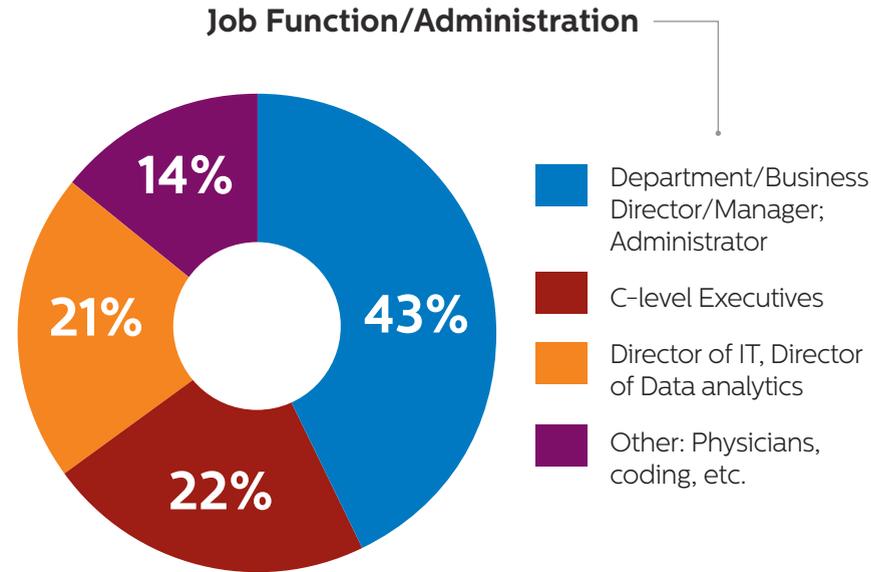
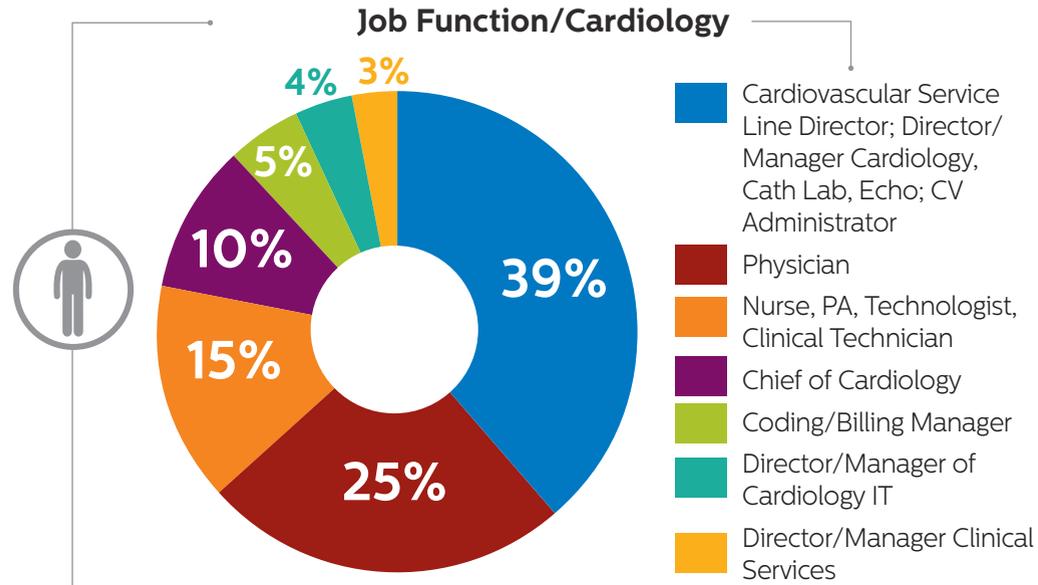
TOP ADMINISTRATIVE/CLINICAL CHALLENGES to CVIS adoption/upgrade

- Earning physician support and buy-in
- Lack of administration support or understanding
- Lack of leaders' ownership of and commitment to clinical workflow solutions
- Difficulty integrating cardiology data with EMR
- Inability to connect different vendor devices

TOP FINANCIAL/TECHNICAL CHALLENGES to CVIS adoption/upgrade

- Lack of financial resources
- Lack of IT resources for interfacing and integration
- Lack of clear strategy for IT within your organization
- Uncertain or low expectations for the IT benefits for upgrading
- Lack of IT resources for hardware and virtualization configuration

Meet the Respondents



Cardiovascular Business

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The Cardiovascular Business team embarked on this survey to gain a deeper understanding of the current state of cardiovascular health, the role CVIS plays and the goals cardiovascular leaders have established for the next few years. We polled readers of *Cardiovascular Business* magazine, CardiovascularBusiness.com and sister brand HealthExec.com over three months in the summer of 2019. All data is presented in aggregate, with individual responses remaining anonymous.

Some respondents shared deeper demographics that help us better get to know our survey base. Those 353 healthcare leaders work for 305 unique health systems, hospitals, physician groups, across 46 states and six Canadian provinces. They are large, small and mid-sized. Respondents came from all levels of leadership. Here are some of the titles of people who chimed in: CEO, CFO, CMO, CIO, chief of cardiology, chief population health officer, chief innovation officer, director of CV Lab, director of CV service line, director of heart and vascular institute, director of CV informatics, enterprise director of imaging, director of IT, system director for imaging and cardiology, head of data science and analytics and nurse managers in charge of STEMI, cath lab, structural heart and cardiac ICU.

Philips Healthcare is the sponsor of this survey but did not have a role in the data collection, tabulation or collation, thus maintaining the anonymity and integrity as promised to the survey base.

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