



# A Data Success Story from RWJBarnabas Health

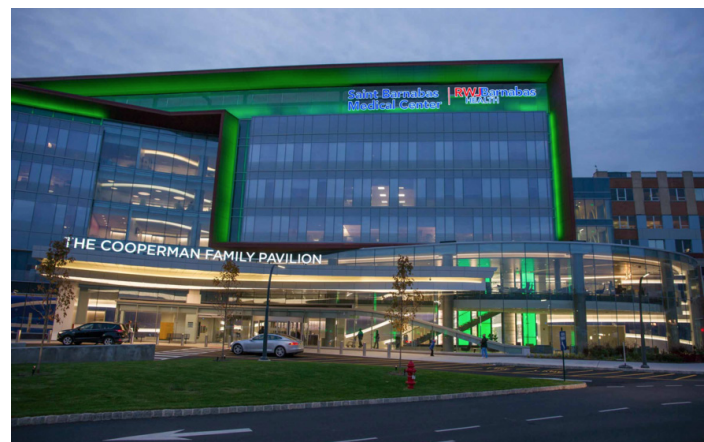
Increasing radial vs. femoral percentages with education and analytics

When Lauren Burke encountered any one of RWJBarnabas Health's interventional cardiologists in the hospital corridor, she would tap her wrist and ask a question: Are you choosing radial over femoral access for diagnosing and treating coronary artery disease?

At first, they would admit they had not performed any radials, and the Vice President of Cardiac Quality and Performance Improvement at RWJBH always responded with: "Well, do you think you could?" Slowly but surely, the reactions she got to tapping her wrist turned into, "I did two radials today" or "I did three radials yesterday," Burke said. "And we would laugh about it. But really it put a lot of pressure on them."

It was just one part of the New Jersey-based RWJBH initiative to increase radial access percentages across the system's 10 catheterization labs—achieving their goals for 2020 thanks to training and education, clear goals, and accurate, actionable data.

Starting off with an 8% radial rate in 2013, RWJBH set an initial goal of 10% and increased it gradually each year. Preliminary numbers for 2020 show a result of 49% overall, with four hospitals exceeding that goal and two reaching 70% and 75%.



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## BREAKING DOWN BARRIERS

Before they could get started, they needed clean, continuous, 100% credible data, Burke said. By employing HealthView Analytics (HVA) by LUMEDX, a business intelligence solution that uses Natural Language Processing (NLP), RWJBH was able to leverage data that was already being collected in the hemodynamic log to create charts that show visually which access sites were being used, while allowing the users to drill down to the case level when more detailed review was desired. Members of the leadership team were able to share these charts by physician, site, and the system overall—putting the numbers in front of providers allowed them to see exactly how their behavior drove both operational and quality goals.

But how do you change a provider's behavior? Especially those who had been using femoral access for their entire careers—because that is what they'd always done.

The first step was training and standardization of protocols as well as conversations about radial vs. femoral during morbidity and mortality reviews, according to Burke. The facts were on her side: Using radial access results in lower mortality, fewer complications, better patient satisfaction, and lower overall costs.

The second was comparing providers to their peers and making that data visible. Having access to individual providers radial rates every day, every week, meant they could gauge who was changing behavior, and target staff who needed more education and encouragement. Allowing providers to see how they rank spurred them to put their best foot forward and mimic the best practices of other, higher-performing providers. The metrics also promoted competition between clinicians and facilities—“no one wanted to be last,” Burke said.

Because radial access allows patients to become ambulatory much more quickly after the procedure, they can go home sooner—usually the same day. The implications of this during a pandemic are clear. “As we look at what's going on with COVID and the need to get patients out quickly, clearly radial is the way to go and it'll continue to be,” Burke said, also citing troubling data on clotting in coronavirus patients that means cases are more serious than a usual STEMI or regular case of blockage. “We are using radial access on 50% of eligible cases now and some parts of the United States are at 70-90%. Each year, we're going to move our goal up.”



“We are making sure that our data is the correct data, and that there's no way that you can refute it, and we're comparing apples to apples.”

Lauren Burke, Vice President of Cardiac Quality and Performance Improvement, RWJBarnabas Health

## THE ROLE OF DATA AND ANALYTICS

Cloud-based infrastructure has made it possible for healthcare to consume data from new sources across multiple subsystems and compile that data to generate accurate, actionable insights with HVA. It is represented in functional visuals that allow managers to compare providers, locations, and outcomes—all in a single, easy-to-use platform—with dashboards so they can monitor, measure, and drive change based on priorities.

To launch a quality improvement initiative, you need to set in place a way to monitor your key performance indicators (KPIs) over time, according to Matthew Esham, Director of Business Intelligence and Analytics at LUMEDX. Changing the behavior of providers is possible, but you need accurate, reliable data that is refreshed on a regular basis or it just won't work, Burke agreed.

"We are making sure that our data is the correct data, and that there's no way that you can refute it, and we're comparing apples to apples," she said. "With the press of a button, I know exactly where we stand."

"What's happening at RWJBH is just a great tale about the journey from manual collection to automation and how you're able to use that to achieve your goal," Esham said. "We have a flood of numbers in these ginormous spreadsheets. But if this is all I have, does this really tell me anything? I need to do something else to add value. I need to say, 'Where am I in comparison to something else?'"

Adds Burke: "There's just too much noise. But HVA has been a night and day difference."

## ABOUT HEALTHVIEW ANALYTICS

LUMEDX's HealthView Analytics (HVA) is a vendor-neutral business intelligence platform that provides immediate access to your clinical and financial information and use it in powerful new ways. Analyze variances across facilities, providers, and staffing shifts to improve care pathways and drive down costs.

The Cardiovascular Performance Program is designed to measure key performance indicators (KPIs) across your enterprise—using content packs from HVA tailored to your organization's individual needs. With year-to-date and volume trending by facility, geocoding for patient referral analysis, lab and unit utilization, and length of stay by clinical population analysis, these metrics give you a wealth of data designed to drive excellence. Once you've identified the metrics you need to improve, use the near real-time data feeds to monitor these goals on your schedule.

## ABOUT RWJBARNABAS HEALTH

RWJBarnabas Health (RWJBH) is New Jersey's largest integrated health care delivery system, providing treatment and services to more than 3 million patients each year. Saint Barnabas Health Care System and Robert Wood Johnson Health System merged in 2015, creating one of the largest health care systems in the nation. RWJBH has 11 hospitals and 10 that perform cardiac catheterizations, for a total of 34 Cath Labs and more than 25,000 encounters per year.