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Cardiovascular Market Intelligence in the 21st Century

What doctors and hospitals need to know to ensure appropriate utilization rates, increase market share, and achieve sustainable growth.

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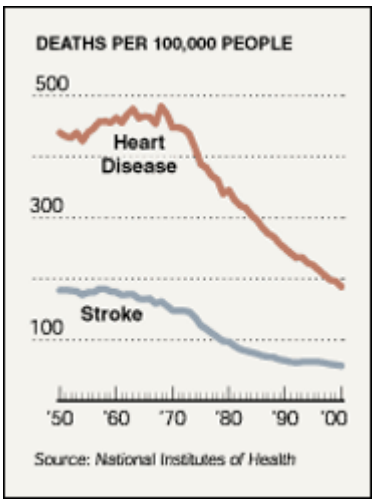
Introduction

Recent national headlines indicate that cardiovascular care providers are coming under intense scrutiny. Despite tremendous advances in recent years in terms of saving lives and lowering cardiovascular death rates, government agencies and major payors are focusing a spotlight on provider utilization patterns and financial practices. Currently, many physicians and hospitals are under formal investigation for recommending possibly unnecessary surgeries and other cardiovascular procedures. Unfortunately, cardiovascular leaders are often ill equipped to respond to such investigations, lacking even basic tools to analyze and understand their own programs.



Cardiovascular care is a natural target for regulators and insurers because of the large amounts of money that are involved. Now more than ever providers of cardiovascular care need to be able to demonstrate that their actions dramatically improve the health of their patients and actually save the country money in terms of increased worker productivity and quality of life. Make no mistake- the opportunities for growth in cardiovascular care are tremendous. But physicians and hospitals need to understand that they are vulnerable to attack if they do not adequately document the results of their programs in tangible measures of cost and quality. The first step in this process is for cardiovascular leaders to understand how their practices compare to competitors in their market, and to peers around the country. From this will emerge a solid base of information that can facilitate any adjustments that are necessary to ward off undue scrutiny.

We are publishing this white paper in response to a demonstrated need for sound data and analysis on the important issues of cardiovascular utilization rates, outcomes, and sustainable market growth. Ideally, this will help physicians and hospital administrators begin the important process of internal scrutiny. Our goal is to provide cardiovascular leaders with data and a framework to evaluate the performance of their own cardiovascular programs against the results of peers and competitors on broad measures of service volume growth, utilization trends, and financial competitiveness. Clearly, the programs that take the time to

acquire this information and thoughtfully act on the results will achieve an advantage over their competitors and make important advances in the field of cardiovascular care—and in the process transform cardiovascular market intelligence into intelligent cardiovascular markets.

What is Cardiovascular Market Intelligence?

A simple definition of intelligence is "*the capacity to acquire and apply knowledge*." But when applied to competitive markets, a more serviceable definition might be "*information about a market or competitor that can be used to gain an advantage in performance*." In cardiovascular care, as in healthcare generally, the two primary levers that control performance (and hence market share) are *costs* and *quality*. So all efforts to acquire strategic intelligence and develop competitive strategies fall under one or both of these headings.

Cardiovascular market intelligence is information about a market or competitor that can be used to gain a performance advantage.

In recent years, a rapidly changing market environment and heated competition among hospitals for cardiovascular market share has sparked interest in the establishment of better information systems and data gathering capabilities. This investment has often been made in an explicit effort to provide a degree of risk management in the allocation of resources and to gain competitive advantage. But much of this investment is being wasted. With the burdens on today's physicians and hospitals it is not hard to fail in this regard. Many programs have experienced difficulty in acquiring accurate and current program information. Frequently, expensive information systems sit idle or are underutilized for lack of a trained staff with the resources to maintain ongoing data collection efforts. Often, data are suspect because of flaws in the gathering process and lack of audit capabilities. Not infrequently, even valid data is ignored by individuals in a position to make strategic use of it.

Fortunately, many of the basic tools of gathering market intelligence and producing actionable results are neither complex nor expensive. With a minimum of time and effort, most of the strategic value of understanding a basic set of cardiovascular program indicators can be obtained. Developing an effective intelligence gathering process is based on the following steps:

1. Selecting key strategic indicators to monitor.
2. Identifying accurate and relevant intelligence sources.
3. Developing a data gathering and monitoring process.
4. Implementing improvement strategies based on the acquired information.
5. Committing to an *ongoing* intelligence gathering and feedback.

This process can be successfully adapted to meet the needs of both cost and quality monitoring efforts. And it doesn't require a large staff with a big budget. In fact, some of the best programs in the country operate

effective data monitoring and quality improvement programs on a shoestring budget. For example, the Northern New England Cardiovascular Disease Study Group (a voluntary consortium of hospitals and doctors) has had tremendous success over the past ten years in improving outcomes of heart bypass surgery patients throughout a four-state region. And this has been accomplished with a one-page data-tracking sheet and one part-time data analyst. A key to success, according to Gerald O'Connor, Dartmouth Medical School professor and one of the founders of the collaborative, is *keeping it simple*. Programs should focus only on items that are truly important to their missions and that will make the biggest impact, and then commit to regularly monitor the gathered data and act on the results.

Focus only on items that will make the biggest impact, and then commit to regularly monitor the gathered data and act on the results.

Of course, the real art of any intelligence gathering process lies in knowing what to measure. And even then, the variation in cardiovascular practice patterns and outcomes witnessed around the country often present an obstacle to meaningful interpretation of the results. If there is one thing that we have learned as cardiovascular consultants over the past ten years it is that no two cardiovascular programs would ever be mistaken for twins. Because cardiovascular medicine is a complex specialty and a rapidly changing field, it is easy to get sidetracked by the latest fad, trend, or new technology. Too often, efforts by a hospital or physician to remain on the *cutting edge* end up being more accurately characterized as the *bleeding edge* of market development. And there is very little standardization in terms of cardiovascular business practices and clinical protocols among hospitals and physician practices nationwide. Some of this uniqueness is an asset that reflects prevailing community standards and ought to be preserved. But at other times it can represent a real risk to the ongoing success of a program. The recent experience of some former cardiovascular market leaders supports this truism: *survival is not mandatory*. Some hospital cardiovascular programs are now shells of their former selves, experiencing over 70% declines in procedure volumes. Some are out of business altogether; and the speed of descent was breathtaking. Likewise, more than one large cardiology practice has imploded in recent memory; for many others it is surely a matter of time. In today's markets it is not a game where the one with the most cardiologist always wins. With this in mind, consider the following examples of applied cardiovascular market intelligence and then reflect on whether your own program suffers—or shines—in comparison.

Example 1: Federal Investigation in Redding, California

In October 2002 things took a turn for the worse at Redding Medical Center in Northern California. Long a cardiovascular market leader in the state, it rapidly became caught up in a multi-pronged federal investigation of hospitals and physicians in the Tenet Healthcare chain. Acting on information from former

patients at the facility and doctors from other markets, a team of 40 federal agents raided the facility and seized boxes full of cardiovascular patients' files and the offices of the hospital's Director of Cardiology and Chairman of Cardiac Surgery. Search warrants were issued based on accusations of systematic fraud, making false statements about healthcare, conspiracy, and unnecessary utilization. Agents from the Federal Bureau of Investigation, the Office of the Inspector General, and the Internal Revenue Service carried out the raid.

A team of 40 federal agents raided the facility and seized boxes full of cardiovascular patients' files at Redding Medical Center in Northern California.

While it is specifically physicians that are the target of this probe, the stock of the hospital chain has nonetheless been severely punished—losing billions of dollars in a very short span, due in part to this investigation of overutilization. Faced with similar circumstances, what hospital or physician would have been prepared to respond quickly and appropriately? While it may be months (or even years) before these issues are resolved, in the meantime massive damage has been done to the reputations and financial viability of both doctors and hospitals. But as cautionary tales go, this incident provides a valuable opportunity to stimulate cardiovascular leaders' interest in establishing more effective programs of intelligence gathering. In order to evaluate some of the basic issues of cardiovascular utilization from a macro perspective, one must first understand the recent experience of the country and current growth trends for the specific procedures in question—in this case coronary angioplasty and bypass surgery. Table 1 provides a look at recent national trends in cardiac procedure utilization. Utilization of diagnostic cardiac catheterization has been steadily increasing for over 10 years, but has recently been outpaced by the growth in catheter-based interventional procedures. Utilization rates on a per 1,000 population basis for

Table 1. U.S. Cardiac Procedure Utilization Trends

Case Counts (000s)	**1997**	**2000**	**% +/-**	**2005**	**% +/-**
Diagnostic Cardiac Cath (Left heart & right/left combined)	2,220.0	2,474.0	11%	2,935.0	19%
Percutaneous Coronary Interventions (PCI, PTCA, Stent, etc.)	713.3	829.5	16%	1,092.5	32%
Adult Heart Surgery (CABG, valve repair or replacement)	403.5	364.0	-10%	342.1	-6%
Interventional Ratio (proportion of Dx Cath)	0.50	0.48		0.49	
Rate Per 1,000 U.S. Population					
Census Population Data (000s)	267,744	275,306		287,716	
Diagnostic Cardiac Cath	8.29	8.99		10.20	
Percutaneous Coronary Interventions	2.66	3.01		3.80	
Heart Bypass Surgery	1.51	1.32		1.19	

heart bypass surgery peaked in about 1997, and have been declining ever since. The decline has been partially offset by the aging of the population, but bypass surgery volume is expected to continue to erode as catheter-based technologies such as drug-eluting stents become more widely available. In the mid 1990s the ratio of PCIs to heart surgery was already running at about 2 to 1. By 2005 we expect PCIs to outnumber surgery by more than 3 to 1, as is already the case in many markets around the country. However, the overall intervention rate will remain fairly constant, with about half of those patients undergoing diagnostic cardiac catheterization proceeding on to an intervention.

So what was happening in the Redding, California market during this timeframe? Is there evidence from publicly available sources that would substantiate systematic overutilization of cardiovascular procedures? Table 2 provides our analysis of data collected by the Medicare program for several key indicators of cardiovascular utilization for the Redding referral region, the State of California, and the United States as a whole. (For this analysis of California cardiovascular markets, we adopted the Hospital Referral Region definitions utilized in *The Dartmouth Atlas of Cardiovascular Health Care*, published in 2000.) Interestingly, on measures of total stress tests, echocardiograms, and coronary angioplasty, providers in the Redding referral region actually performed fewer tests and procedures on Medicare patients than the state average. However, at 37.9 procedures per 1,000 Medicare enrollees, the rate of coronary angiography for the region was substantially higher than both the state and national averages of 26.6 and 28.2 per 1,000, respectively. Further, the rate of CABG surgery on Medicare patients in the Redding referral region, at 12.5 per 1,000, was more than twice the state rate of 5.8 per 1,000. So clearly, CABG utilization rates in the region constitute an outlier in comparison to other markets. (Figure 1 provides a visual display of the difference in CABG utilization rates by Hospital Referral Regions in the State of California.) Yet, when analyzed in conjunction with the regional PTCA rate, which was lower than both the California and national rates, a slightly different picture begins to emerge. Taken together, the average intervention rate (i.e., the proportion of catheterized patients proceeding on to PTCA or CABG) is actually lower for the region than for California or the nation as a whole. This might be explained in part by the higher use of invasive

Table 2. Cardiovascular Procedure Utilization Rates

Territory	Stress Testing	Echo-cardiography	Nuclear Studies (non stress)	Coronary Angiography	PTCA	CABG	Intervention Rate*
Redding, CA Region	76.5	110.7	10.7	37.9	6.3	12.5	49%
State of California	82.7	135.0	6.9	26.6	7.8	5.8	51%
United States	71.8	133.6	9.7	28.2	7.5	6.5	50%

Note: All rates are per 1,000 Medicare enrollees based on claims data for 1996.

* Defined as total PTCA and CABG as a proportion of Coronary Angiography.

Table 3. Cardiovascular Quality Indicators

Territory	Admission Rate for Acute Myocardial Infarction per 1,000	Proportion of CABG Procedures Using Internal Mammary Artery	Proportion Having Stress Test Prior to Revascularization	Proportion Readmitted Within 30 Days of 1st Revascularization	Cardiac Cath Labs per 100,000 Residents
Redding, CA Region	7.6	84.8%	35.2%	14.1%	1.5
State of California	7.6	66.4%	35.0%	16.1%	1.0
United States	10.0	69.6%	33.9%	16.7%	1.2

Note: All data are for Medicare enrollees based on claims data for 1996.

diagnostics in the Redding region. One possible explanation for a higher utilization of cardiac cath may be the greater availability of cath labs in the region, with 1.5 labs per 100,000 residents, as opposed to a state average of 1.0 per 100,000. (Note: these data do not distinguish between the practices of multiple hospitals in the region, which may themselves exhibit substantial variation.) But measures of gross utilization are rarely informative without additional information and context. More important is an understanding of the results of these treatment decisions. In other words, is the quality of cardiovascular care in the Redding region significantly different than the rest of the country? Several useful measures are available to help answer this question. Table 3 provides an analysis of several indicators of the quality of cardiovascular care and patient outcomes experienced by Medicare patients in the Redding region and around the country. One indicator of the effectiveness of cardiovascular care delivery systems is whether aggressive practice patterns drive down the incidence of disease in a region. Certainly many factors (e.g., genetics, lifestyle, education, etc.) form a part of the overall incidence, but the detection and treatment efforts of local care providers also exert a substantial influence. In the Redding region the admission rate among Medicare patients for acute myocardial infarction has historically run at about 7.6 per 1,000 annually. While this is much lower than the national rate of 10.0 per 1,000, it runs directly parallel to the California rate, which is also 7.6 per 1,000. So there does not appear to be a lower incidence of heart attacks in the Redding region than in other areas of the state. But when a heart attack does occur, what about the results of treatment decisions? Several accepted measures indicate that patients in the Redding region fare better than elsewhere in California. For example, providers in the Redding market are more likely to use internal mammary artery grafts when performing CABGs (84.8% vs. 66.4%), are slightly more likely to conduct a stress test prior to revascularization (35.2% vs. 35%), and are less likely to have their patients readmitted within 30 days of discharge (14.1% vs. 16.1%) than the rest of California. So while cardiovascular disease incidence rates seem to be comparable to rates experienced elsewhere in California, there appears to be a comparative performance advantage to the practice patterns of Redding area physicians. County-level cardiovascular disease mortality rates for California appear to support this hypothesis as well. Figure 2 contains a map portraying the difference in mortality rates due to coronary heart disease for the state of California by County. Clearly, the better performing

counties are clustered to the North of the state and along the coast.

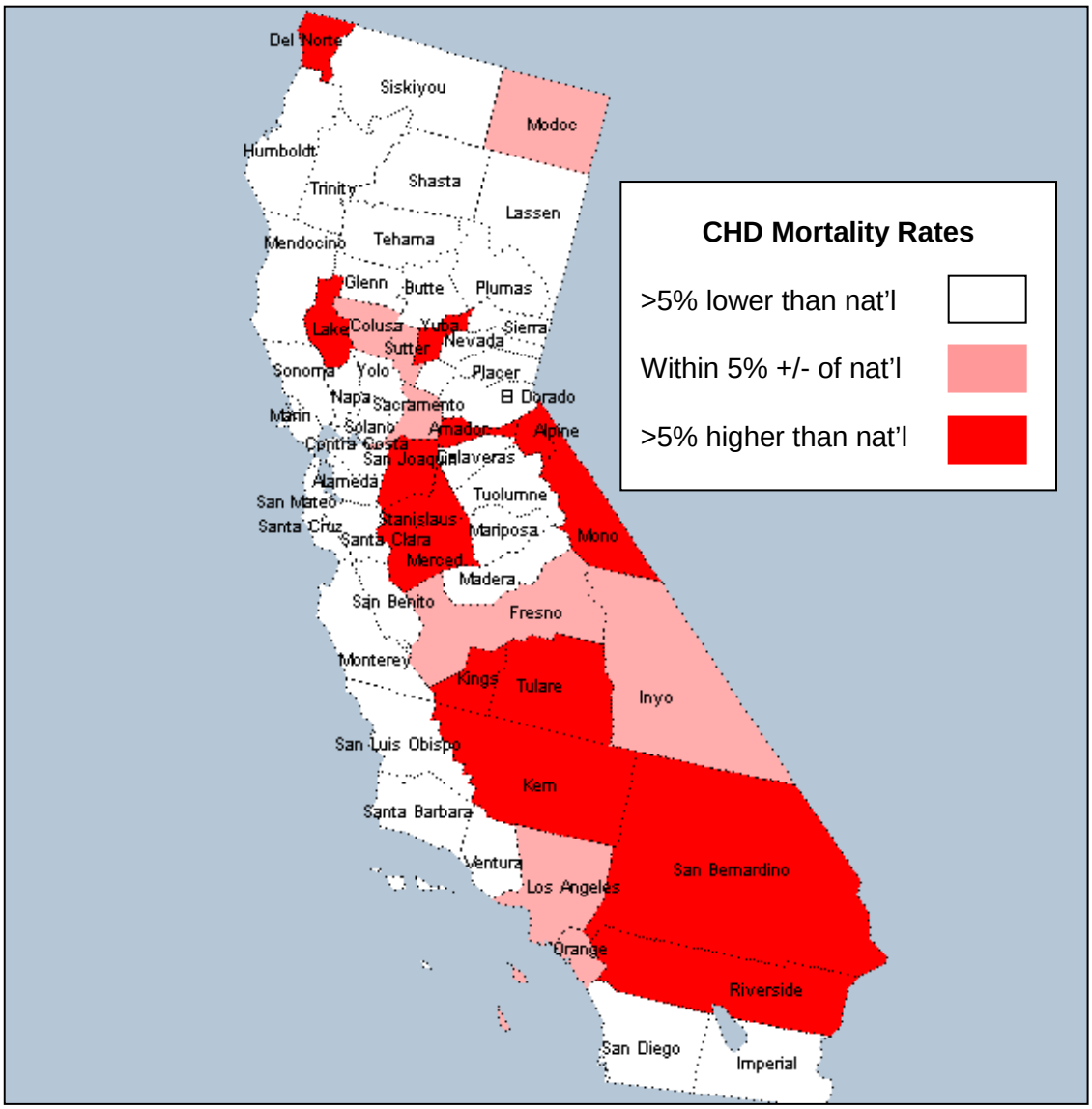
Figure 1 – CABG Utilization Rates in California Hospital Referral Regions

This map depicts Medicare utilization rates for CABG surgery within California Hospital Referral Regions. Regions were defined based on historical referral patterns. Each area was assigned a shade based on the ranges noted in the legend. The darker the shade, the higher the CABG utilization rate.

Table 4. CABG Surgery Rates (Medicare data for 1996)

Hospital Referral Region	Total Population	Medicare Population	Rate per 1,000	Actual Number
Orange Co.	2,732,562	134,049	5.2	697
Bakersfield	841,548	58,510	7.0	412
Chico	263,211	35,132	6.2	218
Contra Costa Co.	862,123	52,140	5.7	295
Fresno	974,617	74,279	5.2	390
Los Angeles	9,230,785	491,795	5.8	2,842
Modesto	717,600	55,011	5.6	306
Napa	250,705	32,840	6.7	218
Alameda Co.	1,348,508	88,598	4.8	428
Palm Springs	248,351	28,925	5.9	170
Redding	**314,477**	**42,438**	**12.5**	**529**
Sacramento	1,987,776	152,725	6.9	1,058
Salinas	337,282	31,319	7.4	232
San Bernardino	2,306,438	84,296	6.4	540
San Diego	3,006,551	159,915	5.2	826
San Francisco	1,323,898	105,131	4.5	474
San Jose	1,525,072	83,490	4.5	374
San Luis Obispo	213,259	20,273	5.4	109
San Mateo Co.	761,040	50,704	4.8	243
Santa Barbara	393,410	30,321	4.7	142
Santa Cruz	245,459	20,634	4.7	98
Santa Rosa	419,080	33,896	3.5	119
Stockton	452,439	36,198	6.5	237
Ventura	744,436	40,993	6.1	250
California	31,500,627	1,943,612	5.8	11,207
United States	262,306,124	27,921,706	6.5	182,855

Figure 2 – CHD Mortality Rates in California Counties



Example 2: DRG 109- CABG w/o Cath

Most cardiovascular care providers would agree that the individuals (public and private) responsible for setting reimbursement rates for cardiovascular procedures often do not adequately correlate payment rates with clinical reality in terms of resource utilization and expenditure of time and effort. How could it be otherwise? As soon as reliable studies of true costs and value are completed they are already obsolete because of the rapid pace of technological innovation in cardiovascular care. In the aggregate, however, things usually work themselves out in the wash.

Despite recent cuts, cardiovascular care remains a well-paid medical specialty in most markets.

However, occasionally the potential for a real conflict of business and clinical practices emerges based on reimbursement profiles of specific cardiovascular procedure categories. For example, under the DRG hospital reimbursement system Medicare has created several distinct categories for patients undergoing cardiac catheterization and heart bypass surgery: DRG 107 covers cath and CABG during the same hospital admission; while DRGs 124 and 125 reimburse for inpatient catheterization, and DRG 109 covers CABGs performed on patients who do not undergo catheterization during the same admission. Thus, patients with similar conditions and needs may undergo different treatment sequences depending on the practices of a particular hospital or physician where they seek care. In effect, in some instances patients will be admitted (and charged) twice if they first receive a catheterization under DRG 124 or 125, and are subsequently readmitted for their CABG procedure.

In practice, there is considerable variation from program to program in the utilization of these categories—with substantial differences in the total hospital reimbursement captured as a result. Hospitals and physicians around the country have different approaches to scheduling patients for cardiac catheterization and subsequent heart surgery. In emergent and urgent cases it is common to perform the diagnostic cath and heart surgery during a single patient stay. In other instances it is necessary and appropriate to separate the two procedures into two separate admissions. Medicare coding and re-imbursement policies recognize the difference between both approaches by having the separate DRG classifications for each. The national utilization profile for DRG 109, CABG without cardiac cath, is discussed below (see also Table 5):

In practice there is considerable variation from program to program in utilization and reimbursement under DRG 109.

- In 2000 there were almost 130,000 heart surgeries done without cath during the same admission. This is almost 40% of all the CABGs performed in the U.S. (valve replacements and repairs not considered in total).
- The in-hospital mortality rate for DRG 109 cases was 1.8%; this compares to 2.7% for CABG with cath. Clearly, patients discharged under this DRG have a lower initial risk profile than those in DRG 107. This suggests that it is possible to risk stratify patients into the appropriate class of admission.
- Type of payer (e.g., Medicare, commercial) or age and gender of patient do not vary significantly from the profiles of other DRGs for heart surgery.
- Type of hospital does follow a fairly consistent pattern. Most DRG 109 cases are currently performed at large urban teaching hospitals.

With respect to the type of hospital the percentages break down as follows: Large hospitals, 75.5% of all DRG 109s; Urban hospitals, 97.1% of all DRG 109s; Teaching hospitals, 68.8% of all DRG 109s. This suggests that many (if not most) of these cases involve patients that received a diagnostic catheterization in another (smaller, rural) hospital and are sent into a regional referral center for their surgery. This may change in the future, as there is a trend towards

Table 5. DRG 109 Coronary Bypass w/o Cardiac Cath (2000 National Data)

		Total Discharges	LOS, days (mean)	Charges, $ (mean)	In-hospital Deaths
Total Discharges		129,514 (100.0%)	7	46,509	2,309 (1.8%)
	18-44	4,164 (3.2%)	5.9	42,239	*
	45-64	55,553 (42.9%)	6.3	43,545	525 (0.9%)
	65-84	68,363 (52.8%)	7.7	48,898	1,638 (2.4%)
	85+	1,402 (1.1%)	10.1	58,677	*
Sex	Male	94,165 (72.7%)	6.8	45,809	1,415 (1.5%)
	Female	35,350 (27.3%)	7.8	48,370	894 (2.5%)
Payer	Medicare	64,719 (50.0%)	7.7	48,329	1,632 (2.5%)
	Medicaid	8,414 (6.5%)	7.7	50,397	*
	Commercial	50,647 (39.1%)	6.1	43,331	444 (0.9%)
	Uninsured	2,944 (2.3%)	7.7	45,111	*
	Other	2,657 (2.1%)	6.8	51,308	*
Teaching Status	Nonteaching	40,396 (31.2%)	6.8	45,434	785 (1.9%)
	Teaching	89,118 (68.8%)	7.1	46,993	1,524 (1.7%)
Location	Rural	3,795 (2.9%)	7	31,894	*
	Urban	125,720 (97.1%)	7	46,973	2,235 (1.8%)
Bedsize	Small	6,468 (5.0%)	6.4	44,547	*
	Medium	25,209 (19.5%)	7	45,610	408 (1.6%)
	Large	97,837 (75.5%)	7.1	46,861	1,786 (1.8%)
Region	Northeast	24,939 (19.3%)	7.3	48,938	*
	Midwest	28,318 (21.9%)	6.9	42,667	498 (1.8%)
	South	60,606 (46.8%)	7.1	41,570	1,130 (1.9%)
	West	15,652 (12.1%)	6.8	66,502	*

establishing full-service cardiac programs including surgery in suburban and even rural locations.

There is some question regarding the application of the Medicare 72-hour rule in this instance of DRG 109. The Center for Medicare and Medicaid Services (CMS, formerly HCFA) requires that all diagnostic services provided three days before an admission be bundled into the DRG. It doesn't matter if the diagnostic service is related to the admission or not. However, elsewhere the CMS has “defined services as being related to the admission only when there is an exact match between the ICD-9-CM diagnosis code assigned for both the preadmission services and the inpatient stay." Whether or not an ICD-9 procedure code of left heart catheterization would apply here is not entirely clear. Re-admission for surgery more than 3 days after cath should avoid any 72-hour rule restrictions. However, because Medicare policy regarding readmission and multiple admission criteria for cardiac cath and bypass surgery is ambiguous and potentially punitive, few providers

have felt comfortable creating any set of written standards or guidelines for post-cath discharge and readmission for surgery. Understanding how this issue is handled in their own markets can help cardiovascular leaders take the lead in establishing appropriate care protocols and gaining an advantage over the competition.

Fruits of Ongoing Market Intelligence Gathering

The previous examples are but two illustrations of the many opportunities cardiovascular leaders have to identify ways in which to use market intelligence to safeguard their programs and spot opportunities for growth and development. There are many more that exist, and more are being created all the time in the dynamic cardiovascular market. The most enduring aspect of effective intelligence gathering efforts is the ability to apply knowledge in a way that benefits cardiovascular program development by identifying potential problems in advance, and turning them into strategic opportunities.

Ongoing intelligence gathering allows successful cardiovascular programs the ability to monitor and react to their own operational, market development, and physician-relations issues, as well as those of competitors. The following are key advantages that can be gained by providers in competitive cardiovascular markets by instituting an ongoing competitive market intelligence system:

- A prescriptive, rather than descriptive approach to capturing market share. (As Drucker has noted: *The best way to predict the future is to create it*.)
- Sensitivity to changes in the regional and national marketplace.
- Strategic solutions that are based on valid statistics and data.
- Time-critical, actionable information.
- Opportunities to increase revenue and reduce cost without negatively impacting the quality of care.
- Real-time feedback on compliance with regulatory requirements placed on providers.

In the chaos of highly competitive markets, it is not easy to navigate the challenges and opportunities that impact a cardiovascular program. When confronted with key decisions (for example, whether to build a heart hospital, or create formal physician-hospital partnerships) market intelligence becomes the deciding factor in a successful outcome. The logic behind ongoing cardiovascular market intelligence gathering is to ensure a provider meets the markets' challenges and maximize opportunities with preparedness. In short, successful cardiovascular programs utilize strategic market intelligence to keep their programs a step ahead of the competition.

To gauge your program's market intelligence quotient, review the performance checklist in the following section.

Cardiovascular Services Strategic Performance Audit

Gathering and analyzing strategic information can help you gain a competitive advantage in your market. Consider the following 10 key questions and measures in relation to your own programs and services:

1. **Can you document your outcomes?**
   In 21st Century healthcare Quality is King. Every program needs to know where it stands and have a plan for improvement. But you don't have time to waste on unproven methods. Learn about and implement systems that have been shown to work for cardiovascular programs.

2. **Can you document the benefits of your services?**
   It's not enough to simply track your costs. You must be able to show consumers and insurers what they are getting for their money. Major studies have documented a 2 to 1 financial return to the community for every dollar in healthcare expenditures. With this much at stake, can you do the math for your program?

3. **Do you monitor your competition?**
   It's not always the cross-town hospital. It can be Wall Street. It can be your payors. If you're not careful, it can be your own staff and physicians. Don't be content to simply track your own data; you need to monitor the performance of your competition as well.

4. **Are your financial ratios healthy?**
   Full-service cardiovascular programs typically generate 30-35% of total general acute-care hospital revenues (in some cases over 40%). Well-run programs achieve operating margins of 15-20% of net program receipts, or more. If your results are any less, you can do better. Find out.

5. **Are you providing all appropriate services?**
   This much is sure: Technology advances and regulations change. Your program needs to respond. By adding new diagnostic, interventional & surgical modalities you can enhance patient care and be responsive to market demands. Stay ahead of the curve—don't rest on your laurels.

6. **Where do your patients come from?**
   Cardiac programs are tertiary in nature. You must do more than meet the needs of your immediate catchment area—and you can't afford to sit back and wait for referrals. In order to thrive you must reach out.

7. Is your hospital physician friendly?

Perhaps the most important strategy hospitals can pursue to enhance their results is to partner with physicians on business development and operational improvement. And this willingness needs to be shown in both word and deed—actions that promote quality and growth should be rewarded.

8. Do you have an appropriate acuity mix?

If your ER provides a disproportionate number of your total heart patients, your quality indicators will suffer and the negative financial and productivity impact will be felt hospital wide. But it doesn't have to be that way.

9. Are your operating benchmarks in line?

As a complex organization your program requires constant tuning: Lengths of stay should be neither too long nor too short; the mix of inpatient & outpatient beds needs to reflect current practices. And the list goes on. Periodic adjustment is crucial for sustainable growth—and only that which is measured improves.

10. Are your services laid out efficiently?

Our studies indicate that changes to physical layout can add as much as 10 percentage points of profit on operations. That often translates into millions of dollars saved- dollars that are then available for investment in other areas.

A little planning goes a long way towards ensuring program sustainability and growth. If you don't know the answers to these questions–or don't like your answers–we can help by performing a *Strategic Performance Audit* of your cardiovascular services. With a basic set of data and two days of meetings with key individuals on site, our team can accurately assess your situation, report back, and outline a sound process for improvement.

About the Authors

Jeffrey Frazier has almost 10 years of direct experience in cardiovascular business consulting, both as a senior level consultant to hospitals and physician practices and as a researcher and author. He has also been retained by a number of state health agencies and hospitals in assessing population needs and criteria for establishing cardiovascular services. In recent years he has served as a cardiovascular consultant and expert witness to hospitals successfully obtaining Certificates of Need in numerous states around the country. He holds a Masters degree in Health Policy from Dartmouth Medical School's Center for the Evaluative Clinical Sciences. He also has Masters degrees from the University of Arizona and the University of Nevada Las Vegas. He can be reached by e-mail at *jfrazier@healthgroupwest.com*.

Kevin Curtis. Over the past 10 years Mr. Curtis has prepared and implemented strategic plans for the development of numerous hospital cardiovascular programs and physician practices around the country, including open-heart surgery programs, cath lab development and Heart Hospital planning. He has an especially extensive background in the development of cardiovascular medical practices, outpatient Heart Centers, and Vascular Centers. Kevin has earned college degrees in Economics, Finance, and a Masters in Business Administration. He can be reached by e-mail at *kcurtis@healthgroupwest.com*.

About HealthGroup West

HealthGroup West is expert in the planning and development of cardiac and vascular healthcare services. It is one of the most knowledgeable groups of experts in the country on the development of cardiovascular markets and all types of specialized cardiovascular facilities. Collectively, the full-time staff and special advisors of HealthGroup West, LLC represent many decades of hands-on experience in the analysis and development of cardiovascular and other specialty medical services. They hold advanced degrees in the fields of Business Administration, Health Policy, Information Science, Medicine, Law, Clinical Sciences, and others. We welcome your feedback and comments on this report.

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