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**Hospitals' Early
Experience with the
National Voluntary
Hospital Reporting
Initiative**

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EXECUTIVE SUMMARY

The National Voluntary Hospital Reporting Initiative (NVHRI) is a nationwide, collaborative effort to make the quality of hospital care more transparent to professionals and consumers. This report provides information on hospitals' decisions to participate in the NVHRI, early experiences under the initiative, and its influence on hospital quality improvement efforts. Findings are based on discussions with senior executives and quality improvement directors of 32 hospitals.

BACKGROUND

The Initiative

In December 2002, the American Hospital Association (AHA), the American Association of Medical Colleges (AAMC), and the Federation of American Hospitals (FAH) launched the NVHRI with active participation from the Centers for Medicare & Medicaid Services (CMS). Hospitals participating in the Initiative agree to submit data for 10 “starter set” measures pertaining to three clinical areas: pneumonia, heart attack, and congestive heart failure. The measures are similar to measures that most hospitals already submit to be accredited by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), although the details of accreditation requirements mean that a substantial number of hospitals had not yet been submitting data for all three clinical areas when they began to participate in the NVHRI.

At first, participation in the Initiative was disappointing: only about 10 percent of Medicare-certified hospitals reported one or more measures for the first publication of data on the CMS website in October 2003. However, with heavy recruitment, more hospitals began to enroll in fall 2003 such that about 30 percent reported at least one measure for the second publication of data in February 2004.

The Medicare Prescription Drug Improvement and Modernization Act (MMA), passed in December 2003, was a major legislative change that will draw most remaining hospitals into the NVHRI by summer 2004. The MMA includes a provision that CMS will reduce by 0.4 percent the annual percentage increase in the Medicare reimbursement rates for hospitals

that do not submit data to CMS on the 10 quality measures by July/August 2004. This is a very strong financial incentive that most hospitals cannot afford to ignore.

The Evaluation

Under a contract funded by CMS through the Delmarva Foundation,¹ MPR is conducting an evaluation of the NVHRI. This report presents findings from an evaluation task to obtain early feedback from hospitals on their NVHRI experience to date. More specifically, we sought information through telephone discussions with quality improvement directors and senior hospital executives including any senior level staff (chief executive officers, chief medical officers, hospital board members, and system executives, for example) who were key to deciding whether or not the hospital would participate in the Initiative.

The telephone discussions ran from January through March 2004 and covered the following major topics: the factors that affected the hospitals' decision to participate or not; their experience with the reporting process, including technical difficulties as well as the burden of collecting and transmitting the data; and the impact of participation on hospital quality improvement programs. The discussions were unstructured, but the evaluation team used a list of questions to guide the calls. The interviewers took detailed notes and used a software package designed to facilitate the analysis of qualitative data.

The 32 hospitals in the evaluation were located in eight states: Arizona, California, Maryland, Iowa, New York, Florida, Rhode Island, and Texas. They were selected to ensure that our sample would be diverse in terms of size, NVHRI enrollment status, ownership, teaching status, and whether they were a member of a hospital system. It is noteworthy that the 32 hospitals are disproportionately early NVHRI enrollees that volunteered to participate in the NVHRI before the MMA was passed in December 2003. We deliberately selected a large share of early participants to ensure that we could obtain good information on the NVHRI experience from hospitals who had actually reported data. In addition, MPR contacted the eight states' hospital associations to discuss the same topics covered in the telephone calls to hospitals.

KEY FINDINGS

- 1. Most hospitals have experienced some difficulties in participating in the NVHRI to date, yet a majority of hospitals in the group that enrolled before the MMA was passed continue to strongly support the Initiative.**

Hospitals reported a wide range of problems related to NVHRI participation to date, including technical problems, confusion, difficulty reconciling the data they saw prior to publication with what they expected, cumbersome enrollment process, and internal

¹ The Delmarva Foundation, the Quality Improvement Organization (QIO) for Maryland, subcontracted with MPR on behalf of the three QIOs that operated the Three-State Hospital Pilot, a project to pilot test the NVHRI, which was overtaken by a more rapid national launching of the Initiative than originally planned.

difficulties. Hospital associations in several states further indicated that these problems were extensive among their members. Yet 16 of the 26 hospitals in the evaluation that enrolled before the MMA was passed remain strongly supportive of the Initiative.

This substantial show of support in the face of difficulties may be related to several factors. First, most hospitals believe that most of their technical problems were not major and that they had largely been resolved. Also, many of these hospitals had enrolled partly as a practical matter—thinking that reporting would be mandatory at some point they wanted to “get in on the ground floor”—and partly because it was the “right thing to do.” Hospitals noted the alignment between the Initiative requirements and those related to JCAHO accreditation, pointing out that agreement between the two substantially reduced the burden of participating compared to what it otherwise would have been. On the other hand, hospitals that enrolled since the MMA was enacted neither have much experience with the program, nor do they view it in a positive light, seeing it essentially as a mandate.

2. Although the NVHRI is consistent with other quality reporting initiatives, hospitals report that the presence of multiple initiatives has resulted in a substantial cumulative burden.

The average hospital participating in the evaluation had been reporting quality data to JCAHO and two other entities before participating in the NVHRI. The most common entities involved in such initiatives include state agencies (i.e., through state mandates for public reporting), QIOs, hospital systems, and proprietary sources that report comparative data back to hospitals that submit their data (such as the Maryland Hospital Quality Indicators Project, the University Health System Consortium, the Voluntary Hospital Association, and Premier). The reporting requirements in many of these initiatives include measures that overlap with the NVHRI and with one another.

Although hospitals see the NVHRI as a good or a pretty good fit with these other quality reporting initiatives, they strongly emphasized that the real concern for them is the cumulative burden of quality reporting. In particular, the manual abstraction of patient charts is labor intensive, yet this method of gathering data is the only option for most hospitals at present. Eight of the 32 hospitals mentioned working toward electronic medical records, which they expect to reduce the burden of reporting. Up until now, however, hospitals have accommodated the elevated emphasis on quality reporting and related quality improvement efforts by expanding and shifting staff, and by squeezing on productivity. These pressures are reflected in the fact that hospital QI directors appear to be stressed. One hospital association said that the pressure has forced 10 quality improvement directors in the state to return to staff nursing or to leave the field in this year alone.

3. Checking their data and reconciling data differences is a substantial task for participating hospitals.

Public reporting increases the pressure on data quality. If an abstractor misses some relevant patient information, the data will be inaccurate with the effect of a lower-than-appropriate hospital score. In addition, physicians are highly skeptical of data that appear to show a need for improvement. Therefore, hospitals are taking great pains both to check

their data before submitting it and to try to resolve even small differences between the scores they expect and those they see during the 30-day review period prior to publication of the data. Hospitals and hospital associations reported some difficulty with the latter. Specifically, when hospitals are asked by CMS to verify their rates during the 30-day review period, they do not automatically receive case identifiers that tell them which patient data were used to compute the scores and which were excluded and why.

- 4. To date, the primary effects of the Initiative have been to give higher priority to quality performance in the eyes of hospital leadership, to stimulate hospital efforts, to speed the collection of quality data, to spur new or enhanced quality initiatives, and to better document appropriate care. Some hospitals have diverted attention from other clinical areas to focus on those covered by the NVHRI.**

Higher Priority to Quality Performance. Many participating hospitals (12) said public reporting of quality data under the NVHRI made quality a higher priority in the eyes of hospital leadership, and many additional hospitals (for a total of 21) said they believe public reporting generally has the effect of heightening attention to quality, although they did not yet observe this effect from the NVHRI. On the other hand, management's increased attention to quality has not yet produced additional quality improvement efforts at most hospitals.

New Data Collection. Nine of the 32 hospitals are collecting some previously uncollected data, potentially laying the groundwork for future quality improvement. Some of these hospitals said they had planned to collect the additional data anyway, primarily for JCAHO accreditation, but are doing so earlier than anticipated.

New or Enhanced Quality Initiatives. The NVHRI has prompted 5 of the 32 hospitals to begin, enhance, or "revitalize" quality improvement initiatives related to pneumonia. These efforts include implementing or developing standing protocols, implementing or developing clinical pathways, and/or placing stickers on medical charts to remind physicians to administer the pneumococcal vaccine. Standing protocols differ from clinical pathways in the former are physician-approved guidelines that allow nurses to, for example, dispense antibiotics or vaccinate a patient without physician-signed orders.

Improved Documentation. Several hospitals (3) said the NVHRI has influenced them to improve documentation. Many others were also improving documentation but did not credit the NVHRI with causing the effort. Many reported that poor documentation is the major reason for relatively low scores in some clinical areas. Improving documentation may make hospital scores more accurate and trigger future quality improvement if the focus on documentation alone does not raise the hospital's score as much as desired.

Diversion of Resources from Projects for Clinical Areas not Covered by the NVHRI. As a side effect of prioritizing the NVHRI, seven hospitals in the evaluation diverted resources from projects unrelated to conditions covered by the NVHRI. It is noteworthy that 4 of the 6 hospitals in the evaluation that are independent hospitals (not part of a system) diverted resources from other areas whereas only 3 of the 25 system

hospitals did so. It may be that system headquarters support from some systems allowed those hospitals to avoid diversion to a larger degree.

5. The NVHRI has stimulated more hospital improvement activity related to pneumonia, a condition newer to many hospitals as a focus, than it has for heart attack and congestive heart failure.

All of the new or enhanced quality initiatives and much of the new data collection pertains to pneumonia care. The absence of a similar effect on heart attack or congestive heart failure initiatives is partly a result of the relative maturity of these two conditions as targets for hospital improvement. Many hospitals had already implemented quality improvement activities that remain in place and/or raised hospital performance to a high level. Thus, for the heart conditions, hospitals have less of an opportunity to improve their score and fewer additional actions available to them that that would obviously further improve their scores.

HOSPITALS' SUGGESTIONS TO CMS

Hospitals were forthcoming in suggesting how CMS might improve the NVHRI. . . . Most often, hospitals recommended that CMS should ensure accurate reporting, streamline the process of participation and communication, and keep up with the changing practice of medicine by reviewing the measure set frequently. Hospitals also suggested that to make the data useful for consumers, there is clearly work to be done.

CONCLUSION

In conclusion, the NVHRI has generated and maintained hospitals' support for three broad reasons: public reporting is viewed as "the right thing to do," the NVHRI fits reasonably well with other quality initiatives in which hospitals participate, and technical problems with the hospitals we interviewed have mostly been resolved. We also found signs that the NVHRI may, in concert with other initiatives, lead to better quality of care despite the fact that the impact on care in the participating hospitals has been very limited to date. However, there are several issues that CMS should consider in moving forward with the NVHRI.

First, hospitals that enrolled after the Initiative became essentially a financial necessity had a much more negative attitude toward participation than did the earlier enrollees. Yet, the set of interviews in this evaluation task was designed to focus most on hospitals that had enrolled early, since more participation time would give us richer information about participation and response. It is possible that this report therefore paints a more positive picture of hospital responses and attitudes than we may see with a nationally representative sample of hospitals in an analysis that reflects the more recent context of near-universal participation.

Second, hospitals generally believe both that technical issues had been resolved and that much of their confusion had been addressed. However, there was a price paid for these

problems in terms of otherwise postable data not being posted on the CMS website and significant time and effort devoted to resolving the issues. This experience and the hospitals' recommendations to CMS for NVHRI improvement suggests that CMS will want to ensure (1) that the technical problems will not resurface during the rapid increase in hospital data submissions that will occur in summer 2004 and (2) that communications about the program are clear and consistent.

Finally, a major issue for CMS will be setting a pace for expanding the NVHRI that balances the desire for a broader set of measures to better reflect hospital quality with the need to recognize the pressure on hospital quality improvement departments brought about by a growing data collection burden. Our discussions with hospitals suggest that they would strongly support any streamlining or consolidating of the many quality reporting initiatives in which they participate.

CHAPTER I

INTRODUCTION

A. BACKGROUND OF THE NVHRI

In December 2002, the American Hospital Association (AHA), the American Association of Medical Colleges (AAMC), and the Federation of American Hospitals (FAH) launched a national public quality reporting program called the National Voluntary Hospital Reporting Initiative (NVHRI). The initiative closely resembled the Three-State Hospital Pilot (3SP),² an initiative sponsored by the Center for Medicare & Medicaid Services (CMS). The first several months of the NVHRI focused on enrolling hospitals willing to have their quality scores disclosed to the public. The NVHRI used the same starter set measures as the 3SP. In designing the 3SP, CMS consulted with several organizations, including AHA, AAMC, FAH, the National Quality Forum (NQF), the Agency for Healthcare Research and Quality (AHRQ), and the Joint Commission for Accreditation of Health Organizations (JCAHO), as to which quality measures should be reported. CMS selected 10 quality measures in three clinical areas—acute myocardial infarction (AMI), chronic heart failure (HF), and pneumonia. The quality measures are a subset of JCAHO's measure set, meaning that the measures are defined and computed the same way that JCAHO computes its measures, with one exception for a measure that uses the same data but is displayed in terms of percent of hospitals meeting a threshold of timeliness for administration of antibiotic rather than in terms of average minutes to administration of the drug. Full alignment of the measures is scheduled to be complete in summer 2004. Since its inception, CMS has been an active participant in, but not a sponsor of, the NVHRI.

² In fall 2002, the Centers for Medicare & Medicaid Services (CMS) provided a grant to a consortium of three of its quality improvement organizations (QIOs) for pilot testing a new program to report hospital quality measures to the public over the Internet. The pilot test, known as the Three-State Hospital Pilot (3SP), was conducted by the QIOs in Maryland (Delmarva Foundation for Medical Care), New York (IPRO), and Arizona (Health Services Advisory Group). CMS's intention was to field test the new public reporting program in the three states for two years, to apply the lessons learned from the field test to the national roll-out of the program, and, finally, to inaugurate a national program,--called Hospital Compare--of reporting hospital quality measures.

Enrollment of hospitals and preparation of the infrastructure for the NVHRI continued through spring 2003. Enrolled hospitals were asked to submit data in July 2003. CMS posted NVHRI data on its web site in October 2003. CMS called the site its professional web site, as opposed to Hospital Compare, which is designed for consumers but has not yet been developed. Approximately 10 percent of Medicare-certified hospitals in the United States had at least one quality measure reported on the web site. The CMS administrator at that time indicated in a note on the first page of the web site that he found the number of hospitals enrolled in the NVHRI, “very disappointing.”

In December 2003, Congress and the president enacted the Medicare Prescription Drug, Improvement and Modernization Act (MMA) (PL 108-173). Section 501(b) of the MMA stipulates that CMS will reduce by 0.4 percent the annual percentage increase in Medicare reimbursement rates for hospitals that do not submit data to CMS on the 10 quality measures. In essence, this provision makes participation in the NVHRI financially, if not legally, mandatory. Hospitals must begin submitting data by July 1 and complete submitting one quarter of data by August 1, 2004, to qualify for the 0.4 percent of the market-basket rate increase. Throughout the report, we refer to this as the 501(b) program.

In February 2004, CMS refreshed the professional web site, which now includes additional data reflecting the increase in the number of hospitals that had pledged their participation. The web site posted data on at least one measure for approximately 30 percent of Medicare-certified hospitals. CMS plans to publish Hospital Compare on its consumer web site, www.medicare.gov, in February 2005.

B. BACKGROUND AND METHODS OF THE STUDY

In July 2003, the three quality improvement organizations (QIOs) operating the 3SP engaged Mathematica Policy Research, Inc. (MPR), to evaluate the 3SP and the NVHRI under funding from CMS. The NVHRI evaluation, which is the focus of this report, was designed to assess several aspects of hospitals’ perceptions of and reactions to the collection and publication of data on hospital quality. The major objectives were to (1) identify the factors that influenced hospitals’ decision to participate or not participate in the NVHRI; (2) obtain feedback on the hospitals’ experience with the reporting process, including technical difficulties as well as the burden of collecting and transmitting the data; and (3) assess the early impact of participation on hospitals’ quality improvement programs.

To conduct the evaluation, MPR interviewed relevant senior hospital executives and quality improvement directors. The relevant senior hospital executives included any senior staff (for example, chief executive officers (CEOs), chief medical officers, board members, system executives) who were instrumental in deciding on hospital participation or nonparticipation in the NVHRI.

To select a sample of 30 hospitals, MPR first selected eight states, which included all three 3SP states—Arizona, Maryland, and New York—along with five nonpilot states—California, Florida, Iowa, Rhode Island, and Texas. These states also represented states both with and without their own state mandates for hospital quality reporting. In addition, MPR

selected states to ensure geographic representation. After it selected the sample states, MPR selected communities within each state. The communities varied in terms of the number of competing hospitals, urban versus rural location, and managed care penetration. Finally, the 30 hospitals were selected based on important characteristics, including size (number of beds), NVHRI enrollment status, ownership, teaching status, and whether the hospital is a member of a health system.

To encourage hospitals to participate in our interviews, the AAMC and FAH signed a cover letter to hospital CEOs that was sent to each sampled hospital that was a member of those organizations to introduce our study. Other hospitals received similar letters on MPR letterhead. About five to seven days after mailing the letters, MPR contacted each hospital by telephone to schedule an interview.

Obtaining participation from the relevant senior hospital executives proved to be more challenging than originally anticipated and thus required two supplementary samples to be drawn (one sample consisted of 14 hospitals and the second of 7 hospitals). In drawing the supplementary samples, we applied the same selection criterion that we applied in drawing the original sample.

Originally, MPR planned to interview 30 relevant senior hospital executives and 30 quality improvement directors. We expected that most of the relevant senior executives would be CEOs. In fact, in several cases (six hospitals), the quality improvement director was the one key person who made the decision for the hospital to participate or not participate in the NVHRI. Therefore, we did not interview a senior executive for those hospitals. For two hospitals, we could not schedule an interview with the relevant senior executives and spoke instead only to the quality improvement director. For two other hospitals, the reverse occurred, permitting us to speak only to the relevant senior executive. In the end, MPR interviewed the quality improvement director and/or a relevant senior executive at 32 hospitals out of a total of 51 hospitals contacted (63 percent response).

MPR conducted telephone interviews between January and April 1, 2004. During the same time, we also conducted interviews with hospital associations from the states represented in our sample. We designed four protocols: (1) one for CEOs and other senior hospital executives, (2) one for relevant system executives, (3) one for quality improvement directors, and (4) one for state hospital associations. With the telephone interviews unstructured, the protocols provided guidelines for the interviewers. Each interview lasted between 45 and 60 minutes. All respondents were guaranteed confidentiality. Given that the hospitals in our sample were not selected probabilistically from the entire hospital population, the findings in this report are not statistically representative of a larger population. After the conclusion of each interview, MPR staff documented the interviews and prepared the notes for input into Atlas.ti, a data software package designed for analyzing qualitative data. Throughout the report, we provide narrative excerpts in quotations as examples to illustrate points. However, the quotations are paraphrased from our notes rather than recorded verbatim and therefore are close approximations to the respondents' words but are likely not their precise words.

All the qualitative analysis presented in this report uses the hospital as the unit of analysis. That is, for each analytic issue, we used information from both the CEO and the QI director interviews. In most cases, the two discussions complemented one another, but occasionally they conflicted. Where they conflicted on a topic such as the hospital's initial view on participation or potential consequences if the hospital were to receive a low score, we assumed that the senior executive would have the more accurate perspective. On technical issues or how the hospital responded to the initiative, we assumed that the quality improvement director had the more accurate perspective.

Because of the unstructured nature of the conversations with the interviewees coupled with the evaluation's limited time frame and ambitious list of topics of interest, we could not address all topics of interest with every hospital. Therefore, while we often provide counts of the number of hospitals that shared a view, we also use language such as "most," "many," "some," and "several." For clarity, "most" is used when a high majority (70 percent or more) of those who commented on a topic shared a particular view. "Many" means that at least 5 hospitals shared a view (many times, 10 to 20 rather than all 32 hospitals commented on a topic). "Several" refers to 3 or 4 hospitals, and "some" refers to more than 1 hospital, but usually more.

C. HOSPITALS IN THE EVALUATION

The hospitals in the evaluation varied in terms of their bed size, geographic location, ownership, whether they are an academic medical center, whether they are a member of a health system, their NVHRI status, and their accreditation status (see Table I.1).

Table I.1. Characteristics of Interviewed Hospitals

	Total Number Responding
State	
Arizona	3
California	5
Florida	4
Iowa	4
Maryland	2
New York	6
Rhode Island	1
Texas	7
Size	
Small (<100 Beds)	6 ^a
Medium (100-299 Beds)	15
Large (300+ Beds)	11
Ownership	
Government, nonfederal	6
Not for profit	22
For profit	4
Academic Medical Center	
Yes	4
No	28
Member of a Health System	
Yes	25
No	7
NVHRI Status	
Enrolled	31
Not enrolled	1
JCAHO accreditation	
Accredited	30
Non-JCAHO accredited	2
Total hospitals	32

^aOne of the small bed-size hospitals was a critical access hospital.

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CHAPTER II

QUALITY REPORTING CONTEXT AND CONCEPTUAL FRAMEWORK FOR IMPACT OF NVHRI ON QUALITY

A. QUALITY REPORTING CONTEXT

A major theme of the hospital discussions was that the NVHRI contributes to the cumulative impact of the full set of public and private initiatives in which hospitals participate. Specifically, the NVHRI is part of an increasing swirl of activity around quality measurement and reporting that carries with it both advantages and disadvantages affecting how the Initiative is perceived and the extent to which it is effective. This section is intended to provide the reader with a reference and appreciation for the range of other initiatives in which the hospitals in our sample participate.

1. Public Reporting Initiatives Other than the NVHRI

a. State Mandates

Many states have mandatory reporting of hospital performance measures. A recent CMS analysis found that 13 states have such requirements (add reference). Of the eight states in the study (Arizona, California, Florida, Iowa, Maryland, New York, Rhode Island, Texas), five have mandatory hospital reporting:

California hospitals are required to report coronary artery bypass graft operations (CABG) to the Office of Statewide Health Planning and Development (OSHPD). Data from an earlier voluntary initiative are publicly available, but the mandatory data have not yet been reported (see <http://www.oshpd.cahwnet.gov/HQAD/aboutus/Outcomes/Clinical/index.htm>).

In *Maryland*, a legislative body called the Maryland Health Care Commission (MHCC) requires hospitals to submit data on the treatment and prevention of congestive heart failure and community-acquired pneumonia. In May 2003, Maryland hospitals published for the first time and, upon release, publicized data for the same heart failure and pneumonia

indicators used by the NVHRI. Maryland also publishes the data on the web to ensure public access, at http://hospitalguide.mhcc.state.md.us/facility_search.asp

New York hospitals are required to submit data to the New York Patient Occurrence Reporting and Tracking System (NYPORTS), which tracks data on unintended developments in a patient's conditions. Hospitals submit all data to the New York State Health Department, which also collects and reports data on heart-related procedures. For example, the department collects data on coronary artery bypass surgery (CABG), percutaneous coronary interventions (PCI), and angioplasty. Data are publicly available on the New York State Health Department web site at <http://www.health.state.ny.us/nysdoh/healthinfo/cs.htm>.

In *Rhode Island*, the legislature mandates that hospitals publicly report performance data in the same clinical areas included in the NVHRI. Hospitals have been publicly reporting the data since late 2002, and it is available on the web at <http://www.health.state.ri.us/chic/performance/quality/quality17.pdf>.

Texas hospitals are mandated to submit data to the Texas Health Care Information Council (THCIC). Hospitals submit claims on all discharged inpatients, from which quality measures, including volumes, mortality rates, and utilization indicators related to quality are computed. Each quarter, THCIC publishes data in a public-use file that is available for purchase (See <http://www.thcic.state.tx.us/Publications.htm#HDD>.)

b. The 501(b) Program

As noted above, the 501(b) Program, which was initiated in December 2003 through the MMA, provides an update of 0.4 percent market-basket rate increase to hospitals' Medicare payments if they report the 10 starter set measures included in the NVHRI. At present, it is perfectly aligned with the NVHRI, except that hospitals must meet certain specific requirements to obtain the financial increase that are not mandatory for hospitals that enroll in the NVHRI. Specifically, they must be willing to publish all 10 of the indicators, and must begin submitting their data by July 2004 and complete submission by August 2004.

c. Other Report Card Efforts

Health Grades, for example, is an investor-owned firm that provides hospital-specific quality ratings and mortality rates for various conditions including pneumonia, heart attack, and heart failure. Hospitals receive ratings based on their performance (five stars for best, three stars for as expected, and one star for poor performance) (<http://www.healthgrades.com/default.cfm>).

Other efforts are regional or local. In New York State, for example, the Alliance for Quality Health Care publishes 25 hospital-specific performance indicators drawn from the AHRQ Quality Indicators related to volume of services and mortality rates

(<http://www.myhealthfinder.com/newyork/>). In some markets, insurers or purchaser coalitions also produce report cards on various measures.

2. Other QI Measurement Initiatives Providing Comparative Data (Nonpublic)

For several years or more, many hospitals have relied on comparative data to assess their performance. Listed below are several quality improvement measurement initiatives that provide comparative data but do not make them public.

a. JCAHO

Most hospitals submit data to JCAHO for accreditation purposes. Thirty of the hospitals in our sample are accredited by JCAHO. As part of the accreditation process, hospitals must submit data on core performance measures. Initially, JCAHO identified four core measure sets for hospitals in the following areas: heart attack, heart failure, pneumonia, and pregnancy. Hospitals had to select two measures sets, depending on the health care services they provide. In January 2004, JCAHO required accredited hospitals to gather data on an additional set of core measures. The new requirement means that hospitals now have to report three sets of core measures. Beginning in 2004, core measure data will also be publicly reported on the JCAHO web site.

b. CMS Initiatives through QIOs

Hospitals must report some quality data to their QIOs and, at their option, can report more extensive measures as well. The mandatory measures in the QIOs' 7th Scope of Work include the NVHRI starter set as well as others. In addition, QIOs frequently conduct voluntary quality improvement initiatives around clinical areas. QIO initiatives enable hospitals to compare their performance to benchmarks for their state.

c. Hospital Systems

Some systems require their hospitals to submit data on a regular basis (usually quarterly). Systems analyze the data and provide feedback reports for comparative purposes. The data enable hospitals to compare their performance to other member hospitals as well as to national benchmarks. Many systems collect data on an array of conditions, including but not limited to the three clinical conditions in the NVHRI. Some systems also collect and report outcomes and mortality data.

d. Proprietary Sources

Hospitals in the evaluation are also using several other proprietary sources of comparative data, including the following:

The Maryland Quality Indicators Project, run by the Maryland Hospital Association, collects a broader set of quality data than the NVHRI. Some 550 hospitals participate nationally. Hospitals submit data on a quarterly basis and receive comparative feedback in

the form of reports and data analysis. Participating hospitals can customize searches in order to see how their performance compares to that of other hospitals on selected measures.

The University Health System Consortium represents an organization of over 100 academic medical centers. The consortium collects quality data and provides benchmarking and comparative data, enabling academic medical centers to compare their performance to similar institutions.

The Voluntary Hospital Association (VHA) also represents a voluntary quality improvement initiative to which hospitals can submit data. The VHA provides benchmarking data as well as information on best practices.

Premier, Inc., is another source of comparative data for subscribing hospitals. Some 500 facilities subscribe to Premier Healthcare Informatics, which maintains a comparative database that brings together a vast array of data on clinical, financial, and operational data, including data for the 3 clinical areas and 10 indicators in the NVHRI. Last year, along with CMS, Premier helped launch the Hospital Quality Incentive Demonstration Project, a three-year program designed to determine if financial incentives can improve the quality of care received by patients.

B. CONCEPTUAL FRAMEWORK FOR IMPACT OF NVHRI ON QUALITY

1. Conceptual Framework for Impact of NVHRI on Quality

Any or all of four events in the cycle of public reporting may stimulate quality improvement within a hospital:

- *The decision to participate.* A hospital's decision to commit to public reporting may trigger quality improvement if the institution sees such reporting as important and wants to ensure high scores.
- *First preview of data.* When, for the first time, a hospital views its data on quality indicators for public reporting (with benchmarks for context), it may decide to improve in one or more areas and engage in follow-up efforts. For hospitals inexperienced at collecting some portion of the starter set measures, viewing data for the first time would occur at the first 30-day review period after data submission.
- *First report with "clean" data.* When a hospital first views its data on quality indicators, it may focus on poor documentation to explain poor performance. After it has attempted to improve documentation, a time may come when the institution decides that its scores will not reach the desired level solely through improved documentation, thus stimulating real improvement.

- *External pressures that arise as the hospital's data become public.* Once a hospital's data become public, the press, managed care organizations, purchasers, and consumers have access to the data. These stakeholders have the potential to bring pressure to bear on hospitals to improve in weak areas.

For any of the above events to result in quality improvement, a hospital must have resources (either new or reallocated) available for improvement and knowledge of how to improve. Obviously, for measures on which a hospital's score is already very high, there may be no need for quality improvement.

The evaluation explored the extent to which each of the four events has led to quality improvement to date and--where it has--what form the quality improvement has taken. The following are the types of evidence indicating that quality improvement is occurring or is likely to occur in the future; the evidence types are ordered, with the first type most directly linked to improved quality for patients:

1. *New or enhanced quality improvement activities are initiated.* The activities are aimed at increasing the proportion of patients who are cared for according to the guidelines that the quality measures are measuring.
2. *Leadership places a higher priority on quality.* If leadership places a higher priority on quality, the hospital might devote additional resources to quality improvement, now or in the future. Also, a strong leadership focus may mobilize medical staff and other hospital personnel to accomplish more quality improvement with existing resources.
3. *New data are collected.* Quality improvement is unlikely to occur unless a hospital first identifies an improvement opportunity, which in turn requires data. Therefore, the collection of new data offers new potential for future quality improvement.
4. *Efforts are underway to improve documentation.* If a hospital suspects that documentation is the main issue affecting its quality data, then it may not undertake activities likely to improve patient care until it "clears away" the documentation issue to reveal its "true" scores. Therefore, efforts underway to address documentation are a sign that the hospital takes its scores seriously and may undertake other improvement activities in the future if improved documentation does not result in scores as high as the hospital desires.

In addition, the fact that a hospital now publicly reports on certain indicators could potentially increase quality directly for those measures, even without any of the above indications for quality improvement. Such quality improvement would occur if (1) the data are shared with physicians staff and other hospital personnel, (2) there is little or no disagreement with the indicators, (3) there are no significant systemic or care process obstacles to improvement, and (4) simply announcing public reporting of the measures is a sufficiently powerful means to raise and sustain individuals' attention to the indicators.

2. Extent to Which the February/March Hospital Discussions Can Identify Effects

Of the four events that may stimulate quality improvement as a result of public reporting, only two such events have occurred for most hospitals in our sample. In the first case, we have a group of 31 hospitals that decided to participate in the Initiative, permitting us to assess whether their participation decision led to quality improvement. In addition, 19 of the hospitals had submitted at least some data for the February posting, indicating that they had the opportunity to review their data as it would publicly appear—a second possible trigger for quality improvement. Moreover, 15 of the 19 hospitals that reported data in February have a substantial opportunity to improve on at least one of the measures they reported if we consider that any hospital not at or above the 50th percentile on a measure has a substantial opportunity to improve. The hospitals are scattered across the states and include small, medium, and large hospitals and both system and independent hospitals (see Table II.1).

Many of the hospitals with opportunities to improve have been focusing on documentation as a reason for some of their low scores. Therefore, they have not reached the third potential trigger, which is feedback of data that the hospital views as “clean.” In addition, probably because of the web site’s low profile to date and the site’s design for professionals rather than consumers, stakeholders outside the hospitals have had no occasion to use the web site. Therefore, the potential fourth trigger—external pressure—has not yet come into play for any hospital, but it could be argued (and some did) that it may be a factor in the future.

The hospital discussions reported here are well suited to identifying the mechanisms through which quality improvement has been or is likely to take place (discussed above), except the potential direct effect from simply providing information to medical and other staff that the hospital is now publicly reporting on these measures (which would require more broadly surveying hospital staff).

In sum, the February/March hospital discussions provide insights into the early effects of the Initiative, but the early effects discussed here will not tell the whole story, which is still unfolding.

Table II.1. Hospitals in the Evaluation with Substantial Opportunity to Improve

State	Size	System/Independent	Clinical Indicators		Clinical Areas
			Reported and Posted in February	Showing Substantial Opportunity to Improve (<50th percentile)	With Substantial Improvement Opportunity (<50th percentile)
Arizona	L	System	6	2	Pneumonia
California	M	System	7	5	Pneumonia
California	L	System	7	3	AMI, Pneumonia
Florida	M	System	10	8*	AMI, CHF, Pneumonia
Florida	L	System	5	3*	CHF, Pneumonia
Iowa	S	System	1	1	CHF
Iowa	M	System	10	2*	AMI
Maryland	M	System	5	3	Pneumonia
Maryland	L	System	4	3*	CHF, Pneumonia
New York	M	Independent	7	1	Pneumonia
New York	M	Independent	7	2	AMI, CHF
Texas	S	System	5	5*	CHF, Pneumonia
Texas	M	System	7	5*	AMI, Pneumonia
Texas	M	System	4	4	AMI
Texas	L	System	2	1	AMI

*Note: Hospital showed substantial opportunity to improve on the ACE inhibitor measure.

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CHAPTER III

HOSPITALS' DECISIONS TO PARTICIPATE

Of the 32 hospitals we interviewed, only 1 was not enrolled in the NVHRI at the time of the interview (see Table III.1)³. The hospitals varied widely in terms of when they signed up to participate. By February 2004 when CMS refreshed the professional web site, 19 of the 32 hospitals had some data posted on the web site. The small hospitals in the evaluation lagged others in posting data, with only 2 of the 6 small hospitals posting any data.

The hospitals also varied in terms of how much data they had posted. Only three hospitals had data for all 10 quality measures posted on the web site. All three institutions are medium-sized hospitals that belong to a hospital system. The fact that medium-sized hospitals on average published more indicators than either small or large hospitals raises the issue of whether both large and small hospitals may face more challenges in producing the data.

The December 2003 passage of the Medicare Modernization Act (MMA) marked a major milestone in the evolution of the NVHRI. Twenty-five of the participating hospitals we interviewed for the evaluation decided to participate in the NVHRI before passage of the MMA, and five decided to participate after passage of the MMA. By the time of the evaluation's interviews, enrollment was widespread not just in our sample but throughout the study states.

The relevant people who made the decision to participate in the Initiative varied but often included a combination of the CEO, a hospital system executive (where applicable), the quality improvement director, and the medical director. Hospital systems varied in their approach to participation, ranging from a hands-off approach and extending to required participation (see Table III.2). About half the time, systems at least encouraged participation. In contrast, hospital board members were usually not critical decision makers.

³ The hospital that is not enrolled is a critical access hospital and therefore does not have the MMA's market-basket adjustment incentive to participate.

Only one hospital said that the hospital's board mandated the hospital's participation in the NVHRI.

Table III.1. Level of Participation of Hospitals in the Evaluation

	Total	Number of Hospitals with Data Published by February 2004	Average Number of Clinical Areas for Those Posting Data	Average Number of Indicators for Those Posting Data (of 10)	Average Number of Indicators, Including Posters and Nonposters
All Hospitals	32	19	2.1	5.4	3.2
State					
Arizona	3	1	3.0	6.0	2.0
California	5	3	1.7	5.3	3.2
Florida	4	2	1.25	7.5	3.8
Iowa	4	3	1.7	4.3	3.3
Maryland	2	2	2.0	4.5	4.5
New York	6	3	1.2	5.0	2.5
Rhode Island	1	1	3.0	10.0	10.0
Texas	7	4	1.8	4.5	2.6
Size					
Small (<100 beds)	6	2	1.5	3.0	1.0
Medium (100–299 beds)	15	10	2.4	6.8	4.5
Large (300+ beds)	11	7	1.7	4.0	2.5
System Membership					
Yes	25	15	2.1	5.6	3.4
No	7	4	2.0	4.5	2.6
Academic Medical Centers					
Yes	4	3	2.0	6.3	4.8
No	28	16	2.1	5.2	3.0

Table III.2. Level of System Involvement in NVHRI Participation Decision

Hospital system...	
Required participation, causing hospital to participate	5
Required participation, but hospital made decision before mandate	4
Encouraged participation, but hospital made its own decision	3
Adopted a hands-off approach	12
Total system hospitals in the evaluation	24

Hospitals' attitudes toward participation at the time they decided to participate ranged from enthusiastic to reluctant, with 16 enthusiastic, 10 in the middle, and 5 reluctant (see Table III.3). Hospitals that were categorized as enthusiastic made one or more positive statements about the NVHRI as we discussed their expectations upon enrolling in the program. For example, "We try to get our hands on any quality data we can." Hospitals that were reluctant made one or more negative statements as we discussed their decision to participate, such as "We didn't really have a choice." Remaining hospitals were categorized as "in the middle." There was little change in hospitals' current attitudes relative to the attitudes they said they had when they decided to participate; about half the hospitals were still strongly supportive.

Patterns by type of hospital included the following:

- Three of the 4 academic medical centers were enthusiastic participants.
- All the sampled hospitals in one of the pilot states (Arizona) were enthusiastic.
- System hospitals tended to be more favorably inclined toward the Initiative, with only 2 of 25 reluctant versus 3 of 7 nonsystem hospitals.
- The 5 reluctant hospitals were all not-for-profit, nongovernment hospitals located in three states, all of which mandate public reporting. A disproportionate number (3 of the 5) are large hospitals.

Hospitals that were enthusiastic participants cited two main reasons for participating: (1) to "get in on the ground floor" of a public reporting process that they viewed as likely to be mandatory in the future and (2) to participate because it is the "right thing to do." The hospitals that wanted to "get in on the ground floor" explained that a learning curve is associated with each initiative. Early participation enables a hospital to gain experience with the program and develop confidence in the accuracy of its data. Two hospitals that were enthusiastic about participation (one a 3SP participant) said that they had looked forward to providing input into the program, which, though voluntary when they decided to participate, had the potential to become mandatory.

Hospitals that cited participation as the "right thing to do" said that transparency is important. Consumers have the right to know how hospitals are performing:

"We knew that AHA, AAMC, FAH, CMS, and JCAHO all supported the effort. We believe that the public has a right to know. The data will ultimately prove to be valuable to consumers and payers. So, we thought it was the right thing to do."

Hospitals also pointed out that participation provides access to comparative data at the hospital level and thus may disclose examples of hospitals that are implementing "best practices." Comparative data can offer insight into a hospital's weaknesses and can lead to quality improvement activities, some said.

Most hospitals report quality data to other entities. Consequently, many enthusiastic participants reported that the NVHRI represented a natural extension of their ongoing work. Publicly reporting data heightens awareness among leadership, they believed. Many hospitals reported that, in the future, they think that hospital payments will be based on performance. The NVHRI represents a chance to improve performance; thus, if hospitals eventually are paid for their performance, they will have the mechanisms in place to demonstrate solid performance. Finally, AHA's sponsorship of the NVHRI helped the Initiative gain credibility. Some hospitals reported that AHA's involvement lent a measure of comfort about their participation in the Initiative.

The five hospitals that enrolled after passage of the MMA tended to view the Initiative less favorably. They are the same five hospitals that were reluctant to participate in the NVHRI. They decided to participate solely because CMS will reduce by 0.4 percent the annual percentage increase in Medicare reimbursement rates:

“When it [the Initiative] became mandatory, we didn't really have a choice. It's another unfunded mandate.”

“This [the Initiative] is a form of blackmail”

Viewing the NVHRI as mandatory has created a sense of annoyance, distrust, and burden among some of the reluctant enrollees. Several described the prospect of NVHRI participation as labor-intensive and predicted that the costs will outweigh the benefits. Some expressed unhappiness about submitting data to CMS earlier than they anticipated submitting similar data to other entities, primarily JCAHO. Only one of the reluctant hospitals had submitted data for the NVHRI at the time of the interviews. However, the Initiative is moving the reluctant hospitals to report data when they otherwise might not:

“We are in survival mode. We don't have a lot of resources. So, we have to prioritize things and when things are voluntary, they are not as high on the list. Now that the Initiative is mandatory, it's a higher priority for the hospital.”

Most of the hospitals we interviewed for the evaluation consider the NVHRI and the MMA's 501(b) program synonymous. However, one hospital distinguished the two programs and explained that it is participating in the NVHRI but not in the 501(b) program. That hospital, which is accredited, explained that the MMA caught the hospital by surprise; therefore, the institution could not incorporate participation into its budget cycle for 2004. Such planning was necessary because the hospital had to account for the resources required to collect data for pneumonia cases, which is a new clinical focus area for the hospital. In addition, the 0.4 percent penalty will have little impact on the hospital because it applies only to their fee-for-service patients, who represent a small fraction of the hospital's patients.

All types of hospitals—enthusiastic as well as reluctant hospitals, hospitals new to the Initiative and those with more experience—voiced some concerns about participating in the NVHRI. The most frequently cited concerns were:

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- *The costs and the time required to manually extract data.* All types of hospitals expressed concern about the data collection process, particularly the five small hospitals.
 - *The availability of staff resources.* One hospital commented that nurses, who collect a lot of the data, are hard to find in the current shortage environment. Another hospital is allocating the money it will receive from the MMA's market-basket increase to hiring staff to meet the new data collection responsibilities.
 - *The accuracy of the data.* The consensus among hospitals is that the 10 quality measures only represent a portion of a hospital's performance. Compounding hospitals' worries is the fact that small sample sizes can influence a hospital's data. One or two "bad" cases can skew the data and make a hospital's performance look worse than it is.⁴ Hospitals expressed anxiety that the general public (consumers, the media, for example) will draw incorrect inferences from incomplete data.

⁴ At CMS's minimum sample size (25 cases), two "bad" cases can move a hospital from 88 to 80 percent, for example.

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CHAPTER IV

PARTICIPATION EXPERIENCE

To date, most hospitals (21 of 27 that provided information), including both early and later enrollees, reported some difficulties in participating in the Initiative. Nonetheless, beyond the technical difficulties, which many hospitals now view as resolved, participation in the Initiative is a pretty good fit with other hospital reporting efforts. Precisely because of the good fit, the month-to-month burden and experience of participating is mostly inseparable from the general burden and issues associated with quality reporting.

1. Implementation Difficulties

Hospitals reported the following types of problems:

- *Technical problems with data submission.* Ten hospitals reported technical problems in submitting their data through their vendor or directly to CMS via QNet Exchange. Problems included software glitches, difficulties in using QNet Exchange, and transmission issues with the CART tool. For example:

“Last quarter, our data did not look accurate. There was a problem between the vendor and QNet Exchange. The data did not match. So, we decided not to post our data to the web site.”

The one hospital that reported its participation problems were serious had technical problems with data submission. It was a small hospital in a state in which both the hospital association and the QIO were less involved in the Initiative as compared with the pilot states. The hospital reported that it repeatedly left telephone messages with both the QIO and the QNet Exchange asking for assistance with technical issues but that the calls went unanswered for many days, leading the hospital to seek information from another participating hospital. The hospital reports that, more recently, the QNet Exchange help desk returns calls in a timely manner.

In addition, we spoke with one hospital system representative who described the data submission process as a “nightmare.” The hospital system had required its hospitals to participate and was acting as the vendor for its member hospitals (including the one system hospital selected in our sample). It took the system several months to make the data transfer work, in part because of problems in linking customer service to QNet Exchange.

- *Confusion about measures, process, and/or data display.* Seven hospitals reported some confusion about what participation in the Initiative would involve, although the specific matters giving rise to confusion varied. For example, one hospital initially thought that its participation would require use of the CART tool and an agreement to use the HCAHPS survey. Another hospital was surprised to realize that different hospitals’ data on the web site pertained to varying time periods. Still another hospital noted confusion with the switch in the reporting of the antibiotic measure for pneumonia from “minutes to administration” to “percentage within four hours.” While many could not pinpoint the source of their confusion, one explained, “What is complicated. . . is the relationship with our vendor, QNet Exchange, the QIO, and the AHA. We’ve noticed some inconsistencies in terms of communication.” [This hospital’s additional comments showed that it had misunderstood the population included in the Initiative, believing it was only Medicare and Medicaid.]
- *Difficulty reconciling displayed data with what was expected.* Five hospitals reported that when they first saw their data during the 30-day review period, they noted that the data were not exactly what they expected:

“Some of our data are posted on the CMS web site, but we don’t quite understand why there are discrepancies between the data we submitted to the vendor and what appeared on the CMS web site. It might have something to do with the inclusion and exclusion criteria. It’s a small difference--about 1 percent. But this difference is very important to physicians.”

Three of the state hospital associations pointed to the reconciliation issue as a major problem for hospitals in their states. One said that the tedious process of helping the hospitals resolve the detailed reconciliation issues fell largely on the QIO.

- *Confusing or time-consuming sign-up process.* Several hospitals commented that the sign-up process for the Initiative was confusing or time-consuming:

“Each organization that is involved has a separate form (e.g., QIO, CMS, AHA). Each form asks for the same type of information, but in a different format. . . We are inundated with e-mails. There is a constant barrage of messages and new forms that need to be filled out.”

Three hospital associations reported that confusion around the sign-up process had been a significant issue for hospitals in their state.

- *Internal hospital difficulties.* Several hospitals reported difficulties but attributed the problems to their internal processes:

“[This hospital] has been preparing quality data for years, so I thought we would have done a better job internally. . .the accuracy of the data depends on how events are coded at the hospital.”

Staff turnover had created the problems at one of these hospitals.

In most cases, the hospitals were either hopeful or certain that the various problems had been resolved. However, the consequences of the problems described above often meant that the data to be displayed for a particular quarter were not posted on the web site and/or that hospital staff spent significant time working through the problems. According to the hospitals, the QIOs and vendors were heavily involved in resolving issues as they arose. We found one state hospital association that has also been playing a major role in assisting hospitals with technical issues. More typically, the state hospital associations occasionally intervene to assist a hospital that happens to contact them directly.

2. Access to Technical Assistance

Hospitals' ability to secure the technical assistance they need is critical to their ability to participate in and respond effectively to the Initiative. Hospitals may seek technical assistance of two types: (1) assistance with the technical issues of data collection, submission, and reconciliation of the data between what they expected and what they saw and (2) assistance with improving their performance. No hospital indicated a need for technical assistance of either type that ultimately went unmet, although several hospitals reported problems obtaining assistance from the QNet Exchange help desk.

QIOs are the major resource for assistance with the technical aspects of participation in the Initiative while vendors and hospital system headquarters as well as QIOs are frequent sources of information on process improvement methods and best practices. Even within the same state, hospitals vary widely in the extent to which they interact with their QIO specifically on the Initiative as well as generally on other matters. To illustrate the variation, one hospital said that it received no communication from its QIO about the Initiative. Another hospital in the same state described participating in useful monthly conference calls conducted by the QIO that brought together the hospital's system and member hospitals to discuss definitions of measures and processes associated with the Initiative.

Our sense was that outside sources provide few of the new ideas used by the participating hospitals; instead, much of the hospitals' quality improvement planning is internal. The hospitals typically listed some telephone calls and forums that provide best practices information but, with some exceptions, were unable to recall examples of how they used such information. Most hospitals have established quality improvement teams focused on the hospital's performance in one or more of the clinical areas addressed by the Initiative

as well as on some other clinical areas. The teams' goals are to develop and implement quality improvement activities and to monitor the hospital's performance to assess whether the activities have been effective.

Several system hospitals said that their systems had provided expertise that ranged from an organized effort in which systemwide teams met monthly on each quality initiative to share information and best practices, to clinical resource experts available for consultation, to a system web site that maintains best practice information. Not all systems provided significant technical assistance, however, and one independent hospital noted that it had benefited from the Voluntary Hospital Association's efforts. The VHA provides both benchmarking and best practices information to member hospitals.

3. Burden Imposed by the Initiative

The Initiative clearly imposed a burden that ranged across hospitals from insignificant to substantial. Nonaccredited hospitals and hospitals that had to add a new clinical focus area to what they had been reporting to JCAHO experienced a greater burden than other hospitals.

Many hospitals said that the Initiative did not add burden but, during the discussion, described activities that would have required staff time, such as checking and rechecking data. In addition, they typically did not try to quantify how much time it had taken to resolve the process glitches.

In contrast, some hospitals seemed to overreport burden, noting additional staff required for the Initiative when, in view of the other reporting activities in which the hospital was participating, it was not clear that the relevant person was required solely for the Initiative. Overall, the telephone discussions focusing on burden as one of many topics proved to be an inadequate methodology for quantifying the burden imposed by the Initiative.

Compared with what it otherwise would have been, the additional burden of reporting required by the Initiative was considerably reduced by the large overlap between the data collection efforts for the various reporting programs, particularly JCAHO. The typical hospital in the evaluation was already reporting quality data to JCAHO and to two other organizations before it began reporting under the NVHRI. Several hospitals said that the demands related to hiring and training additional staff proved to be a significant obstacle in collecting the data for the Initiative, although staff were not always needed just for the work required by the Initiative.

Hospitals were somewhat better able to discuss the level of burden generally imposed by quality reporting, although some could not separately estimate the quality reporting burden versus other responsibilities. The level of effort varied greatly, even within hospitals of similar sizes. In New York, a hospital association survey found the average (median) level

of effort for the Initiative was one full-time equivalent (FTE), although that FTE represented the time of several staff members.⁵ A few examples illustrate the variations.

Small Hospitals

- One hospital assigns one full-time staff member to data collection for quality reporting but said that many other staff members are also involved: medical records staff, information system staff, and staff at the system level, all of whom are partially funded by the hospital.
- Another hospital uses medical records personnel only to collect data and report.

Medium-Sized Hospitals

- One hospital reports that five staff members (four registered nurses and an industrial engineer) work on process improvement and that reporting falls under their responsibilities.
- Another hospital operates a one-person quality department, although that person is assisted by a volunteer retired nurse and a friend in another department.

Large Hospitals (example hospitals are between 300 and 650 beds)

- Two hospitals devote about 0.5 FTE to reporting the core measures.
- One hospital devotes two-thirds of one full-time staff member plus 10 percent of the quality improvement director's time, with one-third of a physician's time devoted to pneumonia (unclear whether this physician staff time is just for reporting, probably includes process improvement) along with half-time for a secretary.

The following demonstrate some of the themes that emerged from the analysis of the interviews as related to the Initiative's burden and other quality reporting efforts:

- *Hospital quality improvement directors stressed.* Many quality improvement directors reported a substantial increase in job stress as a result of the growing number of reporting initiatives and the shift to public reporting. One spoke to us during her last day on the job. According to one state hospital association, due to increased pressure and stress 10 quality improvement directors in that state o

⁵ This is based on oral communication from some who were involved. MPR's final report will reference the survey results directly.

have returned to staff nursing or left altogether in the past year. The Initiative is just one of the factors that contribute to stress levels.

- *Expanding, shifting, and squeezing.* Hospitals are expanding staffing, shifting staff, and pressuring staff for increased productivity to meet new reporting requirements and implement quality improvement efforts. Over the past few years, nearly all hospitals, small and large, had to add or shift staff to collect and report quality data. Yet, several indicated that they are considering adding still more staff to meet the growing demands for reporting.
- *Labor-intensive manual abstraction of patient charts.* Collecting quality data through manual abstraction of patient charts is labor-intensive but by default this remains the most common approach. Eight of the hospitals mentioned working toward electronic medical records (EMR); they expect that EMR will yield a decrease in the burden of reporting. One hospital implemented EMR in January and is assessing whether it can reduce the abstracting burden. Several other hospitals were working toward implementing EMR in 2005 or 2006. As discussed in more detail in the next chapter, nine hospitals are collecting indicators for a clinical area that they had not previously focused on and, as a result, were expanding their chart abstraction efforts.

The burden of manual abstraction was most striking among the very large hospitals we interviewed for the evaluation. The two largest hospitals abstracted 2,500 to 3,000 charts per year for the starter set measures. One noted that the burden of abstraction is associated not only with the time needed to abstract each chart but, given the volume of charts, also with the time consumed in tracking down the few charts that cannot be immediately found.

- *Hospitals' burden of checking data and reconciling data differences.* Public reporting increases the pressure on data quality. If an abstractor does not find and abstract a patient's information, the hospital's score on the relevant quality indicator will be lower than it should be. In addition, physicians are often highly skeptical of data that appear to show a need for improvement. Therefore, hospitals are taking great pains to check their data before submission and trying to resolve even small differences between the rates they expect to see and those they do see during the 30-day review period. One hospital's comments show how data reconciliation can affect the burden of participation:

"[T]he impact of public reporting [on existing quality measurement processes] is that the process takes longer. We've exhausted all of our efforts to check and recheck medical records. We've also exhausted efforts to make sure documentation is thorough. The medical staff performs a secondary review before we submit the data. If we identify any variations, we check and recheck the quality."

In addition, a couple of hospitals indicated that manual data collection for the pneumonia indicators is more difficult than for other conditions because the information

may be maintained in several places, making it difficult to obtain. The survey by New York's hospital association found that hospitals' reported average time to abstract a pneumonia chart was 40 minutes (add survey citation).

As mentioned, nearly all the hospitals viewed the Initiative as somewhat or very well aligned with the other quality reporting initiatives in which they participate, allowing them to leverage staff and effort already committed to quality reporting. At the same time, though, hospitals and even a hospital association appeared confused about which measures were included in the NVHRI versus other efforts, particularly QIO efforts. Hospitals frequently talked about the smoking cessation measure, which is not one of the starter set measures. Some stated firmly that the NVHRI measures must take into account severity of illness, indicating a lack of knowledge of what the measures encompass. And a hospital association reported that it receives several calls a day pertaining to the NVHRI, many of which come from hospitals asking why they cannot receive credit in their score for some but not all of the items required for inclusion in discharge instructions, which again is not a starter set measure.

4. Perceived Accuracy and Usefulness of the NVHRI Data

The hospitals in the evaluation overwhelmingly believed that the web site data are sufficiently accurate and meaningful that, if the data show a low score, the hospitals would explore the reason and take steps to improve their score. However, they reported several concerns.

Data discrepancies. Some hospitals were troubled by small discrepancies between what they thought they would see and/or their JCAHO rates and what they then saw during the 30-day review period before publication of their data on the web site. While they knew that any discrepancy had something to do with the inclusion/exclusion criteria, they would have liked to be able to explain even small differences to their staff. Many hospitals found it difficult to identify which cases were included and excluded; their ability to make the necessary distinctions currently seems to depend on working with their vendors. According to one hospital association:

“It’s a real problem that hospitals cannot see their raw data. They see a number—say, 50 AMI cases—but they can’t see which AMI charts were accepted and why... so they can’t correct and resend them. Three or four cases can make a difference whether they are in the 50th percentile or the 10th. If they could see, they could fix and resend before the deadline.”

ACE inhibitor measure outdated. Hospitals generally reported that the starter set’s ACE inhibitor measure is clinically outdated; the literature suggests angiotensin receptor blockers (ARBs) should be the standard treatment, not ACE inhibitors. Therefore, hospitals view the ACE inhibitor measure as an inaccurate representation of their quality; in fact, they are not attempting to improve their performance on the ACE inhibitor measure. One hospital association reported that it received calls every day on this matter in the weeks before the interview.

Other potential for consumer misinterpretation. Several hospitals were concerned about whether consumers or the press would misinterpret the data:

- A hospital system executive stated that reporting numbers without a confidence interval conveys accuracy that does not exist; the average person could think one hospital performed better than another when the difference is just one patient.
- Two medical directors were concerned that (1) consumers might think that hospitals earning a particularly high score on a measure are providing the highest-quality care when in fact they are providing lower-quality care than they should be delivering or that (2) consumers might not recognize that a very high-quality hospital does not have the highest scores. The two medical directors pointed to twin concerns:
 - *Hospitals are penalized for sensitivity to clinical variation in individual patients.* For example, some patients are not discharged on ACE inhibitors because of circumstances (nausea, for example) related to other issues at the time of discharge. Instead, they are instructed to start the medication in two weeks. While the timing is for the benefit of the patient, the practice counts against the hospital. Another medical director noted that the clinical variation issue will become more common as the population of frail elders further increases. [Evaluator's Note: Our understanding from an MPR physician reviewer is that many physicians would handle the above-mentioned cases by providing the patient with a prescription as well as instructing them not to take the medication for two weeks, in which case appropriate practice would not count against the hospital.]
 - *Hospitals are rewarded for insensitivity to individual patients.* For example, "If patients come in with classic symptoms of pneumonia, you typically do a simple test upfront for which there is a 50 percent error rate. With that lack of specificity, it is important that chest x-rays confirm the diagnosis. In cases like these, patients will not be administered antibiotics in four hours. It would be premature to put the patient on antibiotics since this could be the wrong pathway to start the patient down. If the CMS indicators encourage hospitals to administer antibiotic before the chest X-ray confirms the diagnosis, that would be worse care." [Evaluator's Note: Our physician reviewer disagrees with the medical director's analysis, since only admissions are being measured in the indicator, and if the patient is well enough to wait for antibiotics while the diagnosis is confirmed through an X-ray, they are probably well enough to be treated on an outpatient basis.]

Local variation in practice. One hospital medical director said that, in the given hospital's area, 3 of, say, 10 pneumonia patients who come to the hospital in a given quarter may have received an antibiotic in the doctor's office before arriving at the hospital. Such an arrangement is better for the patient than waiting until arrival at the hospital, but the data

will count such cases as failures. [Evaluator's Note: This could be considered a documentation difficulty rather than a measure problem since such a patient's chart should document pre-admission antibiotics.] A second hospital said that it will never perform well on the pneumonia antibiotic measure because of regional practice variation in use of antibiotics. Specifically, the physicians in the area do not use Levoquin for the simple reason that other, less powerful antibiotics still work; however, those other antibiotics do not count toward the measure.⁶

⁶ The hospital is part of a system from which it receives information about what is permissible and to whom it transmits its data. It was not clear from the hospital discussion whether system policy or software or CMS policy drives the hospital's lower score.

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CHAPTER V

EFFECTS OF THE NVHRI ON HOSPITALS

A. OVERVIEW

At this early stage, the Initiative has had several effects that show substantial promise for improving care, but there is little evidence that care has improved markedly. The primary effects have been to elevate quality as a priority issue among hospital leaders; to stimulate efforts to improve documentation of appropriate care; to speed collection of quality data, particularly for pneumonia care; and, at five hospitals in the sample, to spur new or enhanced quality initiatives (see Table V.1). Each of these effects is discussed below.

Table V.1. Number of Hospitals Reporting Evidence of Effect of the Initiative

Effect of the Initiative	Number of Hospitals	Range of Hospital Types		
		Size	System/Independent	States
New or enhanced quality initiatives	5	Medium and large	System and Independent	Arizona, California, Florida, and Iowa
Leadership places higher priority on quality performance	12	Small, medium, and large	System and independent	California, Florida, Iowa, Maryland, and Texas
New data collected	9	Medium and large	System and independent	California, New York, and Texas
Efforts to improve documentation	3	Small, medium, and large	System and independent	Iowa and New York
Diversion of Resources from Projects Unrelated to the Conditions Covered by the NVHRI	7	Small, medium, and large	System and independent	Arizona, California, Iowa, Maryland, New York, and Texas

In addition, hospitals were sharing the NVHRI data with a wide range of hospital staff, and some reported using it actively to promote behavioral change:

“Some of the indicators were not as high as I would have wanted. I like it [the Initiative], because I can show the data to the hospital staff and explain to them that there are areas that we need to improve in. For example, I can show the nursing staff, which usually has no idea why I harp about certain things. I can show them the data and explain why I want to implement certain changes. It helps create a greater awareness of the hospital’s processes.”

“The CMS Initiative has definitely had an impact on the hospital. Our medical staff is cognizant of the fact that the data are published on the Internet. This has heightened their awareness. Physicians know the importance of data being publicly available.”

In another strategy related to use of quality information, some hospitals were generating and sharing physician data on quality measures, including the starter set/JCAHO core measures (see page 35).

B. EFFECTS TO DATE

1. New or Enhanced Quality Initiatives

The Initiative has prompted some hospitals to begin to enhance or “revitalize” improvement efforts related to pneumonia, but it has not had a similar effect with respect to heart attack or heart failure. Five of the 32 hospitals had increased their efforts related to improvement of pneumonia care and attributed such efforts at least in part to their participation in the initiative. From Table IV.1 and our interviews, we know that at least 14 hospitals in the sample had substantial opportunity to improve on one or more pneumonia measures. One of the hospitals that enhanced its improvement efforts in response to the Initiative had not yet publicly reported its pneumonia data but was attempting to improve before doing so. The other hospitals were already involved in quality improvement efforts before introduction of the Initiative or were thinking about implementing efforts before they decided to participate in the Initiative. For example:

“We have a standing order in place for pneumonia. The standing order was in place before the hospital began participating in the CMS Initiative. I think we put it in place in 2001. Then in 2003, we updated and revised the standing order. The updates were made as a result of our participation in the CMS Initiative.”

The five hospitals that increased their improvement efforts related to pneumonia were medium and large hospitals; three were not-for-profit institutions. Only one was in a state with its own mandated public reporting program. Three were part of a hospital system and two were independent.

The types of clinical improvement efforts underway at the five hospitals included:

- *Implementing or developing standing protocols.* Standard protocols are physician-approved protocols that, for example, allow nurses to dispense antibiotics or vaccinate a patient without requiring physician-signed orders
- *Implementing or developing clinical pathways or protocols.* The pathways provide a framework for treatment but do not grant staff other than physicians the authority to administer medical procedures.
- *Placing stickers on medical charts.* The stickers remind physicians to administer (or order) pneumococcal vaccinations.

These same types of improvement efforts, particularly the clinical pathways, were common at other hospitals and for other clinical conditions, although other hospitals made no enhancements in response to the Initiative.

The Initiative's lack of effect on efforts to improve heart attack or heart failure appears attributable to three factors. First, most hospitals have been monitoring their data on heart attack and heart failure indicators for several years in accordance with JCAHO and other initiatives (such as Get with the Guidelines, or through the Maryland Indicators Project or their hospital system). Many such hospitals have already implemented quality improvement activities that remain in place and/or raised the hospital's performance to a high level. Thus, some hospitals have fewer opportunities to improve their score (see Table IV.1) and fewer obvious steps that might improve their scores.

The second reason for lack of effect on heart attack or heart failure efforts is three hospitals perceived that the measures were not applicable to them: two small hospitals with a low volume of relevant cases and one cardiac referral hospital that prioritizes data collection and improvement activities in other areas within cardiac care (such as cardiac surgery and administration of percutaneous transluminal coronary angioplasty (PTCA)). Third, several hospitals are just now starting to collect baseline data (three hospitals are starting to collect heart attack data and one is starting to collect heart failure data). When they assess their data, they will see if and where they can make improvements and perhaps translate the assessment results into quality improvement activities in the future.

2. Leadership Places Higher Priority on Quality in the Focus Areas

Twelve of the 32 hospitals said that the NVHRI had contributed to management's heightened attention to quality performance in the clinical focus areas covered by the Initiative. The Initiative probably had the greatest effect for leadership of the 7 of these hospitals located in states not already requiring public reporting of hospital quality data. Many additional hospitals (for a total of 21) stated generally that they believe public reporting contributes to heightened attention to quality, but did not state this as an effect of the Initiative to date.

Of note, only one small hospital, which is located in a state without mandated public reporting, said that leadership assigns a higher priority to quality as a consequence of public

reporting. Two other small hospitals said that their leadership would place higher priority on quality if the hospital received negative press about a low score.

Of the 21 hospitals indicating that public reporting generally motivates leaders to place a higher priority on quality, six reported that they made a major strategic shift to emphasize quality. In one of these cases, the Initiative may have helped play a role:

“Before I arrived [about a month ago], the hospital did not have the infrastructure in place to fully understand what was necessary for quality reporting and the hospital’s involvement in the CMS Initiative. One of the reasons the hospital brought me here was to demonstrate their commitment to quality. The hospital’s leadership is committed to this. The hospital had some internal issues to work through.”

Another hospital reported that increasing its focus on quality helped improve business:

“When our redefinition efforts [quality monitoring and improvement] began around 1997, the one other hospital in the city (a for-profit hospital a few miles away) was generally considered equal in status to this hospital. By refocusing on quality through our marketing efforts, as well as internally, we have seen a great shift in the past five years where we are much more predominant now over the other hospital.”

Thus far, in most hospitals, leadership’s assignment of a higher priority to quality has not translated into new quality improvement activities, as discussed above. However, three hospital systems with hospitals in the sample are implementing or considering implementing financial incentives (such as bonuses) for top management based on improvement of the hospital’s quality scores, and one individual hospital is doing so.

3. New Data Collected

Because of the Initiative, nine hospitals in the evaluation are collecting some data they had not previously collected, potentially laying the groundwork for future quality improvement efforts. Some of these hospitals said that they had planned to collect the data anyway, primarily for JCAHO accreditation, but are doing so earlier than planned. Five of the hospitals are newly collecting pneumonia data, three heart attack data, and one heart failure data:

“The market-basket policy change is basically forcing us to do AMI. We weren’t doing that before. We’re doing it about six months sooner than we otherwise would have. Not sure how we will look. We have a little anxiety/pressure on that one.”

Seven of the nine hospitals collecting new data are in states with state mandatory reporting programs, indicating the partial but not complete overlap of such programs with the initiative. Also of note, all nine are medium or large hospitals.

4. Efforts to Improve Documentation

Since the Initiative requires the abstraction of data from medical charts, incomplete documentation can influence scores, and, in fact, many hospitals of all types reported that poor documentation was the major reason for relatively low scores in some clinical areas. Twelve hospitals reported that they have quality improvement efforts underway to address documentation. The efforts were roughly evenly distributed across the three clinical areas.

5. Diversion of Resources from Projects Unrelated to Conditions Covered by the NVHRI

As a side effect of prioritizing the NVHRI, seven hospitals in the evaluation diverted resources from projects unrelated to conditions covered by the NVHRI. For example,

“It does draw attention from other areas. We have to prioritize what’s due first...what’s the hottest fire at the time. We haven’t eliminated other activities, we’re just further behind in other areas.”

It is noteworthy that 4 of the 6 hospitals in the evaluation that are independent hospitals (not part of a system) diverted resources from other areas whereas only 3 of the 25 system hospitals did so. It may be that system headquarters support from some systems allowed those hospitals to avoid diversion to a larger degree.

6. Generating Physician-Level Data

Six hospitals reported that they produce physician-level data as part of their quality improvement activities. The detailed information provides a glimpse into where certain problems occur. Armed with these data, hospitals can target education to specific physicians whose performance is weak in certain areas.

How they do it. Some hospitals are members of sophisticated hospital systems that have the infrastructure in place to produce physician-level data, some are members of an outside group that produces these data, and some generate the data themselves. In at least a couple of cases, the mechanism is a quarterly score card generated by a system or other entity that allows the hospital to drill down to physician-level data:

“If we notice areas where we need to improve, we can click on certain values and drill down the data to obtain physician-level data. We have started using these data as our high-level executive report. It serves as an alert.”

Hospitals that produce physician-level data on their own seem to struggle more than the aforementioned hospitals. One reported that the hospital is working toward physician-level data but notes that abstracting the data to support physician-level indicators takes time and adds burden. The challenge is that when people are in the hospital, several physicians typically care for them. Consequently, sorting out which physician ordered what and who should have ordered what (if it was not ordered) takes additional effort. The hospital has requested that its vendor reconfigure its software to help ease the burden of data collection.

Physician attitudes. Physician-level data can meet some resistance. According to one hospital, hospitals submit physician-level data to the Texas Health Care Information Council (THCIC), but the council reports the data in the aggregate. When the THCIC was introduced, physicians were in “panic mode” because “they knew that their names were going somewhere.” But another hospital explained the frustration of lacking physician-level data. The hospital’s quality improvement director had previously worked at a hospital that had such data:

“I think the fact that physicians know that data are being publicly reported heightens their awareness because we keep telling them (e.g., in newsletters). But, since their name is not attached to the data, I don’t think physicians really care. Aggregate data do not have that much of an impact. I think it creates a ‘not me’ mentality among physicians.”

From the hospital discussions, we were unable to assess the impact of providing physician-level data. One hospital, however, reported that physician-level data are well received. The hospital provides physicians with individual-level data and blinded aggregate comparisons. The data have sparked interest. Physicians ask for information regarding specific data so that they can research specific cases:

“We have noticed some improvements. I wouldn’t say tremendous changes, but it has increased awareness. For example, I think it has helped some physicians realize how important documentation is to improving performance.”

C. POTENTIAL IMPACT: HYPOTHETICAL LOW SCORES AND NEGATIVE PUBLICITY

We discussed two additional areas of impact and potential impact: (1) What were the actual and potential effects of negative publicity around a hospital’s scores? and (2) What would be the consequences if the hospital had a lower-than-average score published on the web site?

1. Anticipated Impact of Negative Publicity

Only one hospital participating in the evaluation had received any press inquiry to date about its scores. In that case, the local press was seeking to know how the hospital had scored so well on its AMI measures. Nonetheless, many hospitals and hospital associations thought that press coverage would increase once the data were made available to consumers through the Hospital Compare web site.

Hospitals were about evenly split between those that had at least some misgivings about press coverage of their scores on the starter set indicators and those that were not concerned. Of note, some hospitals with several low scores on their published indicators (below the 50th percentile) were not concerned about negative press, at the same time some hospitals that had many scores around the 90th percentile were concerned. Those with some misgivings were mostly concerned that the media could misinterpret the data. Several hospitals raised concern that one or several cases can “skew” the data. The hospitals that

were not concerned cited several reasons. In some states, the data are already public, and negative publicity has not resulted. In several cases, the hospitals have good scores and therefore have nothing to fear from negative publicity. One hospital commented that the data will only add to the large amount of data on the web that people do not know how to use. Finally, another hospital commented that any bad press would be short-lived.

Several hospitals (usually the quality improvement directors) pointed to potentially positive aspects of media publicity. One said that receiving negative publicity makes hospitals more aware of the importance of quality. Another commented that when the media report data, a hospital has to spend time reviewing and understanding the data. A third said that while it is afraid the media will use the data without understanding it, it would be good if the media scrutinize the data with care.

2. Perceived Consequences if the Hospital Has a Lower-than-Average Score

Hospitals said most frequently that the main consequence of a lower-than-average score would be immediate internal actions to improve performance. Many also pointed to senior management's increased attention to quality. Four said there would be increased pressure or questions from their boards; in fact, one already had questions from its board about why some of its scores were so low. Of note, three of the four that mentioned the likelihood of a board response were public hospitals (the fourth was a for-profit hospital).

Several hospitals (five) said there would be no significant impact on the hospital if it had a lower-than-average score. One noted that most of the data pertain to patients who are admitted from the emergency room; therefore, the hospital does not have much potential to affect patient choice. Others simply noted that patients typically do not choose their hospital based on the data reported under the Initiative; instead, people are more interested in outcome measures and/or that there is little potential for effect since the hospital is the only choice in its area.

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CHAPTER VI

HOSPITALS' SUGGESTIONS FOR CMS AND CONCLUSION

A. HOSPITALS' SUGGESTIONS FOR CMS

Hospitals appeared to be pleased with the opportunity to offer suggestions to CMS. In fact, they had much to say on a range of topics, including choice of measures, updating the measures, expanding the measure set, accommodating small hospitals, improving the program's processes, paying for quality reporting, web site specifics, and consumer orientation of the program. We did not specifically ask hospitals for advice about these topic areas but are noting their comments clustered by topic for ease of presentation.

1. Choice of Measures

Hospitals' comments about choice of measures ranged from criticism of current measures to remarks about what types of measures participating institutions would like to see. For example, one or more hospitals:

- Disagree with the choice of the pneumonia vaccine measure; the vaccine is often not administered in the hospital
- Note that the ACE inhibitor measure is outdated
- View inclusion of patient satisfaction measures as key to represent quality care
- Stress that measures should embody "practical" considerations such as number of work days missed or how quickly people return to work when discharged; at the same time, CMS needs to engage in more nationwide dialogue about the measures
- Agree with that the starter set measures are valid process measures but would rather see outcome measures

- Need to encourage more physician input into refining measures, particularly because the long-term success of the Initiative could be jeopardized if common definitions cannot be found that satisfy physicians
- Applaud the fact that starter set measures represent current evidence-based practice guidelines, and that they are not as sensitive to documentation issues as other measures that could have been selected, such as smoking cessation.

2. Updating the Measures

Several hospitals commented that CMS needs to keep current with the changing practice of medicine by frequently (some respondents said annually) reviewing measures.

3. Expanding the Measure Set

Seven hospitals commented that they would like to see CMS expand the measure set, and another noted that, while hospitals will complain if CMS expands the measure sets, that hospital would participate in an expansion.

Two hospitals expressed considerable concern about expansion:

“I suggest this be the last initiative for a while, so hospitals can get caught up. We are overwhelmed by all the initiatives.”

“I know that CMS will probably expand the measure set. Quite frankly, I don’t know how we will do it. All hospitals are under budget and staffing crunches. It is mind-boggling. I wish that the people who were making the decisions would spend some time in the field so they can learn what it takes to collect the data.”

It is important to note that the hospitals in the evaluation are disproportionately early enrollees relative to all hospitals across the nation and therefore are probably more enthusiastic about expansion than the average hospital. The early enrollees may perceive an advantage in early participation.

Several hospitals commented on the process of expansion:

- CMS should share the list of indicators in advance so the hospital can work on them.
- CMS should check with states about what they collect and use that information to expand the measure set.
- CMS should announce any expansion during the summer so that hospitals can include the associated costs in their budgets.

4. Accommodating Small Hospitals

Two of the small hospitals made the case that CMS should take into account small hospitals:

“Whatever program CMS decides to implement, it should be specific to critical access hospitals.”

“I think CMS should look at something that pertains to small, rural facilities.”

5. Improving Program Processes

Hospitals offered many suggestions for improving program processes:

Streamline Process and Communication

“CMS should streamline instead of adding layers. It is becoming more and more difficult to allocate resources to accommodate all the increased demands.”

“I think the Initiative represents an awkward relationship. The government is involved and a private accreditation organization is involved. Others are also involved. If the Initiative were streamlined more, I think hospitals would cooperate more and CMS would obtain better data.”

“Only one organization should provide [quality] feedback to hospitals. Each organization has its own expectations. Having one voice would be useful. I recommend JCAHO be that voice.”

“A month ago [January], we were told that, in March, we should go to QNet Exchange and check a box to indicate that we were publicly posting our data for the full market basket. But, in March, we received a message indicating something different. If CMS is tying reimbursement to this program, they need to get it together.”

“[From a system executive] CMS should get away from having hospitals authorize publication of the data each quarter. Hospitals don’t understand this process. CMS should find a way to avoid this step. It takes time. The burden and cost associated with this process makes hospitals reluctant to participate.”

Feedback

“Any feedback on the Initiative would be helpful.”

“It would be nice to get monthly error reports. We have asked our vendor.”

“Make sure the results of the pilots get published. They will serve as educational resources.”

Accuracy: CMS Should Ensure that Hospitals are Reporting Accurately

“Doing so [ensuring accuracy] depends upon training and full comprehension of the definitions at each hospital.”

“Uniform data would make the whole process better; as it is, hospitals are using different abstraction methods, which makes comparisons difficult.”

“Collecting data manually can be misleading.”

Other

Accommodate New Technology. “CMS should accept proxy data from institutions like ours. Why do we need to abstract all the medical records, when currently we can press a button and data pops up on patients who are discharged with a beta blocker? I think hospitals need to be encouraged to invest in information technology, not penalized for it.”

Facilitate Technical Assistance by Systems. “CMS should allow systems access to QNet Exchange to view the final reports so they can better assist the hospitals when issues come up. [Note: One hospital association also indicated that it would like to be able to view at least a dummy report so that it could walk member hospitals through various issues in a more hands-on manner.]”

Give More Time for Hospital Approvals. “If paperwork is required for hospitals to agree to things, need to give hospitals more time to complete it. Let hospitals know who to contact and where to send the information. CMS should notify hospitals when preview data become available.”

Research Failures to Ensure that Indicators Work as Intended. “CMS should look at the charts of people who constitute ‘failures’ in the hospitals’ data, to see whether their care was appropriate or inappropriate.”

Improve Consistency of Service by QIOs. “CMS should do a better job to get the QIOs to fully understand their role. Some are on top of it and some do not have a clue.”

Involve Physicians More. “Bring physicians in as partners.”

Persist. “Don’t drop the Initiative. Don’t make this a ‘project of the moment’. . . I think CMS is finally realizing that quality of health care services can make a difference. This might make economical differences in the future in terms of funding and reimbursement.”

6. Paying for Quality Reporting

A couple of hospitals commented positively on the fact that reporting under the NVHRI has now been linked to payment. “It forces us to deal with issues sooner than later.” And, it “adds to the seriousness, gets more attention from hospital administrators.”

Others spoke for and against the idea of paying for performance rather than paying for quality reporting. Three advised CMS to reward hospitals for strong performance, one stating that doing so would help the hospital attract good doctors. Two cautioned CMS not to use the measures in a way that could be perceived as punitive, at least for “a while,” with one concerned that hospitals would “play games with the data.” “It takes time to make changes. CMS should foster an open culture of trying to improve patient quality and safety.”

7. Web Site Specifics

Hospitals had some specific advice regarding the web site:

- CMS should indicate if the statistics are statistically significant. CMS should explain what the difference means and the fact that you can’t draw conclusions based on some of the data. CMS cannot put qualifiers in small print.
- CMS should not reward hospitals for small differences at high levels of performance--as the current system does--by making the small differences appear real on the web site.
- It would be helpful if CMS explained how it calculated the 10 percentile and 50th percentile of hospitals (the hospital is used to national averages).
- It would be helpful if CMS included on the web site the time period associated with the data.

8. Consumer Orientation of the Program

Hospitals were clearly concerned with how CMS would convert the data for use by consumers. They commented on the measures—questioning whether consumers care about them and listing others (such as complication rates) about which consumers might care more. They commented on the way the data should be displayed; for example, “We can’t overwhelm consumers by reporting too much data,” and “We need to speak English.” And they commented that the public will need to be educated about how to make informed choices with the data: “I hope CMS will educate the public in interpreting the data. The public should be looking primarily at whether hospitals are improving, and if they’re not, question it.”

Hospitals included optimists and pessimists with respect to future consumer use of the data:

Pessimist

“Consumers don’t have any power. Insurers really have the power.”

Optimist

“I think the seed has been planted, and I think in the future, consumers and physicians will make more decisions and referrals based on the data.”

B. CONCLUSION

In conclusion, the NVHRI has generated and maintained hospitals’ support for three broad reasons: public reporting is viewed as “the right thing to do,” the NVHRI fits reasonably well with other quality initiatives in which hospitals participate, and technical problems with the hospitals we interviewed have mostly been resolved. We also found signs that the NVHRI may, in concert with other initiatives, lead to better quality of care despite the fact that the impact on care in the participating hospitals has been very limited to date. However, there are several issues that CMS should consider in moving forward with the NVHRI.

However, several issues emerged that are important for CMS to consider in moving forward.

First, hospitals that enrolled after the program became financially mandatory had a much more negative attitude toward participation than the earlier enrollees. Yet, the interviews reported here were intended to focus on hospitals that had enrolled early and thus had more time to participate. It is possible that this report therefore paints a more positive picture in terms of hospital responses and attitudes than we may see with a nationally representative sample of hospitals in the more recent context of near-universal participation.

Second, hospitals generally believed that technical issues had been resolved and that much of their confusion had been addressed. However, a price was paid for these problems in terms of data not posted that might otherwise have been posted and significant time and effort spent to address reporting issues. Based on this experience and hospitals’ suggestions for CMS for the future, CMS will want to ensure that the technical problems will not resurface during the rapid increase in hospital data submissions that will occur in summer 2004 and that communications about the program are clear and consistent.

Finally, a major issue for CMS will be setting a pace for expanding the NVHRI; that pace must balance the desire for a broader set of measures that will provide a better picture of hospital quality against the need to recognize the increased pressures on hospital quality improvement departments and the continuing growth in the data collection burden faced by hospitals. Our interviews suggest that hospitals would strongly support any streamlining that could be accomplished with respect to consolidating the many quality reporting initiatives in which they participate.