Report to Congress
The Administration, Cost, and Impact of the Quality Improvement Organization (QIO) Program for Medicare Beneficiaries for Fiscal Year 2011

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EXECUTIVE SUMMARY

Section 1161 of the Social Security Act (the Act) requires the submission of an annual report to Congress on the administration, cost, and impact of the Quality Improvement Organization (QIO) Program during the preceding fiscal year. This report fulfills this mandate for FY 2011. The statutory mission of the QIO Program is set forth in Title XVIII of the Act-Health Insurance for the Aged and Disabled. More specifically, section 1862(g) of the Act states that the mission of the QIO Program is to improve the effectiveness, efficiency, economy, and quality of services delivered to Medicare beneficiaries and to make sure that those services are reasonable and necessary. During the report period and under the current contracts, the quality improvement strategies of the Medicare QIO Program were implemented by state and territory specific QIO contractors who work directly with health care providers and practitioners in their state, territory, and the District of Columbia. Approximately 54,000 providers and more than one million practitioners[1] nationwide were eligible to work with QIOs. The providers and practitioners could request and receive QIO technical assistance. Additionally, providers and practitioners were subject to QIO review for specific reasons (e.g., record reviews for quality of care complaints) at the request of beneficiaries, CMS, Fiscal Intermediaries, Medicare Administrative Contractors, and the QIO.

During the FY 2011 period, the QIO Program was administered through 53 performance-based, cost-reimbursement contracts with 41 independent organizations. The QIOs for this period were staffed with physicians, nurses, technicians, and statisticians. Approximately 2,300 QIO employees nationwide conducted a wide variety of quality improvement activities to make sure that the quality of care provided to Medicare beneficiaries. FY 2011 covered the 27th through 36th months of the 9th SOW contract, which began for all QIOs simultaneously on August 1, 2008. This report also covers August 2011 through September 2011, which were the first 2 months of the 10th Scope of Work (SOW). In FY 2011, QIO Program expenditures totaled approximately $ 308 million.

Under the 10th SOW, CMS no longer offered an award fee. The 10th SOW contract is a cost plus fixed fee contract. The QIOs' technical performance was evaluated at the 18th and 28th months of their 36-month contract for the 9th SOW contract. Under both contracts, the QIOs submitted vouchers on a monthly basis and are reimbursed for their costs. Their monthly invoices were thoroughly reviewed and certified by an assigned Contracting Officer's Representative (formerly Project Officer) and Contract Specialist.

Quality Improvement Organizations' (QIOs) performance under the 9th SOW was aggressively monitored in each of the core Themes (Beneficiary Protection, Patient Safety, and Prevention Core) and Sub-national Themes (Care Transitions, Prevention Disparities, and Prevention Chronic Kidney Disease (CKD). Monitoring was ongoing and reported each quarter to determine if established targets were met. In the event that a QIO did not achieve the target, a performance improvement plan (PIP) was requested by

[1] These data and categories are from CMS Office of Research, Development, and Information. "CMS Program Data" Sources "ORDI/OACT/OFM/CMM" Providers Plans as of 12/31/09; published 2009.

the Contracting Officer's Representative (COR) in an effort to make sure that problems were addressed prior to the formal 28th month contract evaluation. The 10th SOW began August 1, 2011 and will end July 31, 2014. CMS worked collaboratively with ASPE to design a meaningful program qualitative evaluation of projects and explore new areas of evaluation for quantitative evaluation for the 10th SOW contracts. The 10th SOW is transformational in its approach to support the HHS National Quality Strategy.

Following are the criteria used to determine passing or failing of a Theme or component of a Theme for the 9th SOW:

- Pass: Criteria met for the Theme or component of the Theme as specified in the evaluation section of a Theme and/or component within a Theme. If criteria were not met for the Theme or component of the Theme, a systematic process was used to determine if mitigating factors such as environmental disasters or other factors outside of the QIO's control were responsible.
- Fail: Criteria not met for the Theme or component of the Theme as specified in the evaluation section of a Theme and/or component within a Theme. If criteria were not met for the Theme or component of the Theme, a systematic process was used to determine if mitigating factors such as environmental disasters or other factors outside of the QIO's control were responsible.

If a measure, component, or Theme was removed from the QIO's contract at the 18th month evaluation, only the results of the remaining measures, components, or Theme are included in the 28th month evaluation. However, the results of the 18th month are considered in the overall evaluation for purposes of future competition decisions. This report covers only the first two months of the 10th SOW contracts; there were no formal evaluations under the 10th SOW conducted during FY2011 to include in this report.

The results for all QIOs not meeting the various targets under the 9th SOW were reviewed at multiple levels and included input from the Contracting Officer's Representative (COR), regional office Associate Regional Administrators (ARAs), central office division directors, government task leaders, the evaluation team, CCSQ and RO Senior Leadership, and any additional information gained from QIOs during the course of monitoring visits, root cause analysis, discussions and correspondences. During the course of these deliberations and review of available data, certain evaluation decisions were made and approved by leadership. For example, if criteria were not met for the Theme or component of the Theme, a systematic process was used to determine if mitigating factors such as environmental disasters or other factor outside of the QIO's control were responsible.
In another example, the evaluation criteria for the Prevention/CKD and Care Transitions components were modified because of the nature of sub-national projects and the new and innovative work that was requested of the QIOs. A Standard Data Processing System (SDPS) memo was sent to all QIOs informing them of the modifications that were made to the components in early January 2011. Another example is about how many of the QIOs did not meet the metrics for the Nursing Home in Need (NHIN) Project because of a complex combination of factors. A decision was made to hold the QIOs accountable

for the work and count the targets as not being met for purposes of past performance because of the resources expended on this project and the fact that several of the QIOs were successful. While the project will be counted in past performance, it was not considered for purposes of determining whether a contract would be subject to competition for the 10th SOW. Lastly, while both core work and sub-national work was considered in the determination about whether to compete a contract in the following SOW, core work was weighted more heavily in the recommendations than sub-national work. CMS believes that due diligence was given to every theme or component of the theme to come to the best recommendation regarding a competition decision.

Given the performance of the QIOs, the tight timeline that remained for competition and the lack of resources to compete a large number of contracts, a policy decision was made to renew the contracts non-competitively for any QIO that met the target for all 9th SOW projects. Additionally, due to the lack of clarity for some of the projects and the need to encourage QIOs to try new improvement efforts even if they don't succeed combined with limited resources, a decision was made that a QIO would not be considered eligible for competition based solely on the fact that they did not meet the targets on only one of the up to eleven projects. Based on this criteria, 47 QIOs were considered to have passed the overall 9th SOW evaluation and were not subject to competition.

Twenty-eight (53%) of the QIOs achieved all 28th month contract evaluation targets in the core and/or sub-national Themes for the 9th SOW; which means that twenty-five (47%) of the QIOs did not achieve one or more targets in the core and/or sub-national Themes. Two states were competed for the 10th SOW three year period beginning August 1, 2011 due to contract evaluation failures. Four states were competed for that period due to out of state status only. Out of the 42 individual measures evaluated, success was achieved in 28 or 67% of the measures.

For Nursing Homes Physical Restraints (NH PR), there was a 100% overall pass rate. All 49 (100%) of the QIOs evaluated in the NH PR component passed. Three QIOs were not evaluated on this component due to the lack of patient episodes from which to evaluate. One QIO was not evaluated in this component because the work was removed from the contract related to the inability to achieve the measure targets.

For Nursing Home Pressure Ulcers (NH PrU), there was a 96% overall pass rate. 51 of the 53 QIOs evaluated in the NH PrU component passed. Two QIOs did not pass.

Most of the QIOs performed exceedingly well and achieved great outcomes on behalf of the Medicare beneficiaries. For example, thousands of beneficiaries took advantage of the ability to formally express their concerns about the quality of care they received; and 97% of all Inpatient Prospective Payment System (IPPS) hospitals successfully participated in the Hospital Inpatient Quality Reporting Program, making the move to pay for performance smoother.

In addition to the internal CMS contract evaluation on August 2008, CMS awarded a competitive contract to Mathematica Policy Research of Washington D. C. to design and

conduct an evaluation of both the 8th and 9th SOWs of the QIO Program on regional and national health outcomes and processes. Mathematica performed its analysis over the period from August 4, 2008 through December 1, 2011. This work was focused on the overall national impact of the QIO program.

BACKGROUND

The statutory authority for the QIO Program is found in Part B of Title XI of the Act, which established the Utilization and Quality Control Peer Review Organization Program, now known as the QIO Program. The statutory mission of the QIO Program is set forth in Title XVIII of the Act-Health Insurance for the Aged and Disabled. More specifically, section 1862(g) of the Act states that the mission of the QIO Program is to improve the effectiveness, efficiency, economy, and quality of services delivered to Medicare beneficiaries and to make sure that those services are reasonable and necessary.

Based on the statutory language, CMS identified the following goals for the QIO Program in general and for the FY 2011 period:

- Improve quality of care for beneficiaries by ensuring that beneficiary care meets professionally recognized standards of health care;
- Protect the integrity of the Medicare Trust Fund by ensuring that Medicare pays only for services and items that are reasonable and medically necessary and that are provided in the most economical setting; and
- Protect beneficiaries by expeditiously addressing individual cases such as beneficiary quality of care complaints, contested Hospital Issued Notices of Noncoverage (HINNs), alleged violations of the Emergency Medical Treatment and Labor Act of 1986 (§ 1867 of the Social Security Act, EMTALA), and other beneficiary concerns as identified by the statute.

Under section 1161 of the Act, the Secretary is required to submit an annual report to Congress on the QIO Program on the administration, cost, and impact of the Program during the preceding fiscal year.

I. PROGRAM ADMINISTRATION

Description of Quality Improvement Organization Contracts

In August 2008, CMS awarded contracts for the 9th Statement of Work (SOW) to 53 Contractors participating in Medicare's QIO Program. The QIO contracts extended from August 1, 2008 through July 31, 2011. The 9th SOW focused on improving the quality and safety of health care services furnished to Medicare beneficiaries. The 9th SOW was centered around specific quality improvement initiatives (described as the "Themes") and evidence based interventions, which allowed QIOs to improve the quality and efficiency of health care and health care services delivered to Medicare beneficiaries. It also implemented several recommendations from the Institute of Medicine, the Government Accountability Office, and members of Congress about how the Program can deliver

maximum benefit to patients at the greatest value to the Government. The contracts provided additional tools for CMS and the QIOs to track, monitor, and report on the impact that the QIO program has on the care provided in their states/jurisdictions. As a result of improved tracking and monitoring of the QIOs' technical performance during the 9th SOW, their performance was evaluated at the 18th and 28th months of the 36-month contract.

During the 9th SOW, QIOs were monitored quarterly to determine if they met established targets for specific activities within the timeframes described in Section C.6 of the 9th SOW. The QIOs submitted vouchers on a monthly basis and were reimbursed for their costs. Their monthly invoices were thoroughly reviewed and certified by an assigned Contracting Officer's Representative (formerly Project Officer), Government Task Leader (GTL) and Contract Specialist. QIOs are evaluated according to how well they reach CMS specified performance goals.

In August of 2011, the 10th SOW was awarded and implemented. It was determined that CMS would continue the success of the 9th SOW in targeting the clinical quality improvement areas that are likely to have the greatest impact on the health of the greatest number of Medicare beneficiaries. These quality improvement priorities align with other Departmental priorities, including: the Department's overall goals as outlined in Healthy People 2020; Center for Disease Controls (CDC) efforts to monitor hospital-acquired infections and reduce them; CMS' efforts to increase the use of electronic health records (EHR) technologies to drive clinical practice; Office of Minority Health (OMH) and National Institute of Health's (NIH) efforts to reduce disparities among patients from different socioeconomic, geographic and racial/ethnic groups and FDA's efforts to improve the safety of prescription drug use through increased provider and consumer engagement and compliance. The 10th SOW Aims include: Improving Individual Patient Care, Integrated Care for Populations and Communities, Improve Health for Populations and Communities and Beneficiary and Family Centered Care. Because only the first two months of the 10th SOW contracts are covered by this report, there is not an evaluation of QIO work under the 10th SoW to summarize for the FY 2011 period.

QIOs Interacting with Health Care Providers and Practitioners

QIOs worked and provided technical assistance to health care practitioners and providers such as physicians, hospitals (including critical access hospitals), nursing homes, and home health agencies. In addition to working with practitioners and providers, QIOs worked with beneficiaries, other partners, and stakeholders to improve the quality of health care provided to and received by beneficiaries, health care delivery systems, and addressed beneficiary complaints regarding quality of care.

Any provider or practitioner who treats Medicare patients and would be paid under Title XVIII of the Social Security Act may receive technical assistance from a QIO and may be subject to review by the QIO. CMS estimates that approximately 54,000 providers and more than one million practitioners nationwide may interact with QIOs each year. Interaction can come in a variety of forms including direct intensive QIO assistance to

providers and practitioners, occasional contact with the QIO at professional meetings, visits to the QIO website, and/or QIO patient care and record review on behalf of beneficiaries.

II. PROGRAM COST

Under Federal budget rules, the QIO Program is defined as mandatory spending rather than discretionary spending because QIO costs are financed directly from the Medicare Trust Fund and are not subject to the annual appropriations process. In FY 2011, QIO Program expenditures totaled $ 308 million. This spending represents approximately $9 annually for each of the approximately 48.8 million Medicare beneficiaries to improve quality of care.

III. PROGRAM IMPACT

Overview

The QIO Program impacts Medicare beneficiaries on an individual basis and the beneficiary population as a whole. In FY 2011 over 48.8 million persons were covered by Medicare; this equals to 98.1 percent of the aged population of the United States--virtually everyone 65 and older. 8.4 million of these individuals were disabled persons covered under Medicare.[2] All Medicare beneficiaries represent a significant portion of the nation's population (15.7 percent) that receives improved health care as a result of QIO activity.

The QIOs worked with providers and practitioners to use health information technology to improve care coordination of Medicare beneficiaries resulting in less costs to the Medicare program while also ensuring the integrity, quality and efficiency of care provided to Medicare beneficiaries. In the 9th SOW, QIOs provided direct technical assistance to nursing homes with high rates of pressure ulcers and physical restraints. QIOs worked with nursing homes to instill quality improvement practices and known best practices for pressure ulcer prevention and physical restraint removal resulting in beneficiaries with fewer bed sores or pressure ulcers and/or who were able to maintain their independence because restraints were used less frequently. Beneficiaries experienced improved recovery timeframes and had overall improvement in patient safety in critical access hospitals.

This section provides information about QIO accomplishments and the impact on beneficiaries as a result of the 9th SOW. The 9th SOW had 6 Themes: Beneficiary Protection, Patient Safety, Core Prevention, Disparities, Care Transitions and Chronic Kidney Disease. Each Theme also included components, which addressed a particular area of concern or setting where QIOs were required to put their efforts when working on

[2] CMS U.S. Department of Health and Human Services. CMS Statistics Reference Booklet, 2013 Edition, Table l1, CMS Pub. No. 03504 August 2013, available at htt;://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/CMS-Statistics-Reference-Booklet/index.html.

the Tasks associated with each Theme. Under each Theme, QIOs provided technical assistance by means of quality improvement tools and techniques that improved beneficiary health care. Of the six Themes, three were minimum requirements for all QIOs nationwide, while the Disparities Theme was limited to 33 areas; the remaining two Themes, Care Transitions and Chronic Kidney Disease, were optional.

The 9th SOW was developed using the recommendations of the Government Accountability Office (GAO), the Department of Health and Human Services (HHS), the 2006 Institute of Medicine (IOM) Report on the QIO Program, the Congress, and other internal and external experts. In May 2007, the GAO, at the request of the Senate Finance Committee, reviewed the QIO Program, and recommended ways to re-allocate QIO resources to make greater Program impacts. This, along with the IOM report, resulted in a number of changes, which were implemented in the 9th SOW QIO contract. The 9th SOW represented a significant shift in the Quality Improvement Organization Program.

Specific changes in the 9th SOW contract from the 8th SOW included:

- Expanding the entities eligible for QIO contracts.
    - CMS competitively awarded 13 contracts.
- Awarding contracts based on a demonstrated need for QIO intervention in a geographic area for a particular clinical improvement and demonstrated ability on the part of the contractor.
    - Three of the six Themes in the 9th SOW were based upon clinical need and/or contractor ability.
- Monitoring QIO performance closely, with an innovative continuous contract monitoring/accountability framework. QIOs were required to meet certain performance targets or experience significant consequences.
    - CMS had two contract evaluation periods, the 18th and 28th month evaluations with stringent requirements for each. Appropriate contract action was initiated against any QIO that did not meet minimum performance criteria, as specified in sections C.5 through C.7 of the 9th SOW. Contract action included, but was not limited to, initiation of performance improvement plans, termination of certain activities within the contract, and early termination of the contract.
- Training CMS staff to provide more thorough, effective oversight of contract costs and contractor performance.
    - CMS used performance-based contracting methods.
- Regularly reporting progress throughout the contract to HHS and OMB.
- Altering the procurement process to increase scrutiny during procurement, to increase contractor accountability, and to require contractor effort to improve efficiency, even before the contract began.
    - Procurement was tightened and enforced.
- Basing performance elements on evidence based interventions, which improves quality of care for Medicare beneficiaries.

For the awards of the 9th SOW contracts, CMS conducted a full-and-open competition for 13 jurisdictions, the eight that failed to achieve a satisfactory evaluation based on the 28th month contract evaluation under the 8th SOW contract and the five required by the out-of-state rule (see section 1153(i) of the Act.) All thirteen contracts were awarded: Eleven to the original QIO and two, California and North Carolina, to a new QIO. This increased competition was designed to provide incentives to QIO contractors to achieve better productivity at less cost to the government, and with greater efficiency.

Table 3. QIO Competitive Process for 9th SOW QIOs

	Contracts to be competed		Results of competition		Award Status
States	Failed	Out-of-state rule	No Bid Received	Bid Received	New Contractor
Alaska		■	■		
California	■			■	■
Idaho		■		■	
Maine		■	■		
Minnesota	■		■		
Mississippi	■			■	
New York	■		■		
Nevada	■			■	
N Carolina	■			■	■
Vermont		■	■		
Wyoming		■	■		
Oklahoma	■			■	
S Carolina	■			■	
Total	**8**	**5**	**6**	**7**	**2**

Background of 9th SOW

The 9th SOW was built on specific health care initiatives and a growing evidence base about how to improve the quality and efficiency of the health care sector. The 9th SOW had 6 Themes; three of them were required of all 53 QIO contractors, two themes were optional but were competed among all of the QIOs to be conducted sub-nationally and 1 theme was targeted to 33 specific jurisdictions.

For All QIOs:
1. Beneficiary Protection

2. Patient Safety
3. Core Prevention

For Certain QIOs in Targeted Areas:
4. Prevention: Efforts to Reduce Health Disparities among Diabetes Patients

For Certain QIOs to Compete Subnationally:
5. Chronic Kidney Disease (CKD) Project
6. Care Transitions Project: To Reduce Hospital Readmissions
In response to the recommendations by the reports and agencies described above, CMS used the 9th SOW as a way to develop a robust framework of quality measures that would hold QIOs accountable for changes at many levels of the health care system, and to implement a management information system that would help CMS monitor the Program through system and program performance metrics.

In addition, QIOs focused their intervention projects during the 9th SOW across the spectrum of care, rather than in "silos" based on settings of care, as has been the case with previous scopes of work. This strategy is consistent with recommendations from both the IOM and GAO and was used in the development of the 9th SOW. Both of these reports stated that the Program should direct its energy and resources to facilities which would impact and improve patient safety and care.

CMS instructed QIOs to assist providers based on their need for assistance. For example, facilities were targeted for Patient Safety improvement based on factors such as their performance related to antibiotic administration to surgical patients (for hospitals), their rates of high-risk pressure ulcers, or use of physical restraints (for nursing homes).

Sub-national and Targeted Themes and Projects

CMS made efforts to develop interventions and contract awards based on demonstrated need for a particular clinical improvement and the ability of a contractor to meet that need within the area. This resulted in three of the main projects under the QIO Program to be developed on a "sub-national" level based on full-and-open competition. These sub-national Themes were: Chronic Kidney Disease (CKD), Care Transitions, and the Prevention sub-national Theme on Efforts to Reduce Health Disparities among Diabetes Patients. This approach allocated resources where they were needed most, rather than providing a steady, uniform funding stream across all 53 QIO jurisdictions. The Disparities Theme was targeted to 33 states, with the CKD and Care Transitions Themes available for proposals for any state within the nation.

CMS used the 9th SOW as a platform for addressing health disparities among the nation's underserved populations. For the purpose of the 9th SOW, "underserved" populations were defined as those beneficiaries who are of African-American, Hispanic/Latino, Asian/Pacific Islander, or American Indian/Alaska Native as defined by the data source utilized for evaluation measurement.

CMS determined that 33 of the 53 QIO states/jurisdictions were eligible for competition to receive the Health Disparities Sub-national Theme contract as a component of the QIO's 9th SOW contract. The 33 QIO states/jurisdictions were selected based on the numbers of Medicare diabetic "underserved" within the state/jurisdiction (having at least 5,000). All 53 QIOs were eligible to compete for the CKD and Care Transitions sub-national Themes. To be considered for any of the sub-national Themes, QIOs were required to submit a proposal for the applicable Theme. A total of 19 QIOs were awarded at least one sub-national project under the 9th SOW. Two of them—Georgia and New York— performed all three, while Florida, Louisiana, Rhode Island, and Texas performed two.

Care Transitions States (14): Alabama, Colorado, Florida, Georgia, Indiana, Louisiana, Michigan, Nebraska, New Jersey, New York, Pennsylvania, Rhode Island, Texas, Washington.

Chronic Kidney Disease States (10/11): Florida, Georgia, Missouri, Montana, Nevada, New York, Rhode Island, Tennessee, Texas, Utah. An eleventh QIO, the Virgin Islands (VI) is also working on the Chronic Kidney Disease Sub-national Theme, but it is part of their core 9th SOW contract.

Prevention Disparities: Efforts to Reduce Health Disparities among Medicare Beneficiaries with Diabetes States/Jurisdictions (5/6): District of Columbia, Georgia, Louisiana, Maryland, New York. A sixth QIO, the Virgin Islands (VI) also worked on the Health Disparities Sub-national Theme, but this was part of their core 9th SOW contract. Given the composition of the population of the VI, they did not compete for this as sub-national theme work; it was awarded as part of their core 9th SOW QIO contract.

Theme Requirements and Measures

Each of the Themes in the 9th SOW had an established set of quality measures that provided accountability to the QIOs for making changes at all levels of the health care system.

Theme C.6.1. Beneficiary Protection

Beneficiary Protection activities are mandated by Federal statutes and regulations. Several types of reviews are included in the beneficiary protection theme, i.e., quality of care review, utilization review, review of beneficiary appeals of certain provider notices and reviews of potential anti-dumping cases. These reviews guarantee quality improvement while protecting the Medicare Trust fund. While this Theme focused on conducting activities to meet regulatory and statutory requirements, it also enhanced QIO collaboration with the Beneficiary Complaint Survey Contractor, Fiscal Intermediaries (FIs), Carriers, Medicare Administrative Contractors (MACs), Recovery Audit Contractors (RACs), State Survey Agencies (SSAs), and the Office of Inspector General (OIG). Beneficiary protection clearly establishes a link between case review and quality improvement through data analysis.

Beneficiary Protection tasks were measured in terms of the number of cases reviewed and the satisfaction of the beneficiary with the case review process. Ninety percent of all cases reviewed by the QIO were required to meet timeliness of review standards; while improving beneficiary satisfaction scores each quarter. In addition, QIOs' implemented quality improvement activities (QIAs) with Medicare providers. For this particular task QIOs were required to (1) increase the number of QIAs while continuing to improve results each quarter and (2) complete a QIA that is anticipated to make a system-wide change. This QIA focused on system-wide change must have an impact beyond an individual beneficiary or provider, and had to have resulted in a tangible improvement to a system or process while improving the quality of health care for all Medicare beneficiaries.

During FY 2011, CMS evaluated QIO performance in the Hospital Inpatient Quality Reporting (IQR) program on the improvement in the percentage of hospitals reporting quality data and receiving CMS Inpatient Medicare Fee for Service payment. QIOs provided several types of technical assistance to hospitals in their state to report quality measure data in our Hospital Inpatient Quality Reporting program. They provided technical advice to hospitals on measure specifications and the CMS quality measure abstraction tool to abstract accurate and complete data. They also educated hospitals on program requirements and deadlines using one-to-one communication, email notification, and regularly scheduled teleconferences with multiple hospitals.

The chart below identifies the Beneficiary Protection 28th month evaluation measures, targets and results for the 9th SOW.

Measures	**Targets**[3]	Results
Case Review Timeliness	90% meet standards for all cases Q1-9	99% pass
Beneficiary Satisfaction (Complaint Process)	Improvement over prior quarter OR Q1-Q9 Threshold: 80%	100% pass
Beneficiary Satisfaction	Improvement over prior quarter OR Q6-Q9 Threshold: 65% (small volume < 10 cases, assessed Q1-Q9)	98% pass

[3] See Section J-10 of the Request for Proposals for the 9th SOW for additional detail on these measures and targets.

Quality Improvement Activities (QIAs)	Improvement over prior quarter OR Q6-Q9 Threshold: 65% (small volume < 10 cases, assessed Q1-Q9)	100% pass
System Wide Change	Achieve target # (4% of Quality of Care Concern as of 8/31/09) documented improvement	98% pass
Hospital Inpatient Quality Reporting Program (HIQRP)	Improvement over prior payment year. Threshold: 90% minimum volume for special formula hospitals (10 cases)	100% pass

Case review timeliness is the number of case reviews completed timely.

Beneficiary Satisfaction (complaint process) is the percent of beneficiaries completing the satisfaction survey who are satisfied or very satisfied with the complaint process.

Beneficiary Satisfaction is the percent of complainants agreeing to complete the satisfaction survey.

Quality Improvement Activities (QIAs) are the percent of QIAs among cases with confirmed quality of care concerns.

System-Wide change is the number documented improvement linked to each system-wide change.

Overall 94% of the QIOs passed this Theme, which means 50 of the 53 QIOs evaluated passed.

Theme C.6.2. Patient Safety

Patient Safety was defined in the 9th SOW as freeing patients/beneficiaries from the risk of harm or injury resulting from their interaction with the health care delivery system. To that end, CMS focused QIO activities on six components (or focus areas), which can adversely affect beneficiaries in both the hospital and long term care settings. These six components were: (1) improving inpatient surgical safety and heart failure (SCIP/HF); (2) reducing the rates of pressure ulcers in nursing homes and hospitals (PrU-NH and PrU-H); (3) reducing the rates of physical restraints (PR) in nursing homes; (4) reducing the rates of healthcare associated Methicillin-Resistant Staphylococcus Aureus (MRSA) infections in the acute care setting; (5) improving drug safety; (6) and improving the clinical outcomes of nursing homes that have been deemed by CMS as Special Focus or candidates for the Special Focus Facility List (Nursing Homes in Need – NHIN).

There were specific Tasks associated with the Patient Safety Theme in the 9th SOW:

- Recruiting CMS-specified providers;
- Assessing quality improvement tools and interventions by component;
- Assessing provider culture as it relates to Patient Safety;
- Training providers by component;
- Analyzing and sharing with each participating provider data received from that provider;
- Creating action oriented meetings of key members of provider staff, including community champions of the Patient Safety work;
- Identifying successful improvement methods with details on implementing successful strategies; sharing best practices with CMS and QIO community; and
- Documenting and sharing quality improvement activities

Patient Safety is everyone's responsibility. For practices to be successful and for safety to become ingrained in the fabric of any organization, it requires the commitment of the provider organization, an understanding by the provider of where the organization stands with regards to patient safety and data transparency and the will to execute proven effective practices that come from every layer of the organization. The tasks above allowed the QIOs to work within their own community framework to improve clinical outcomes. The QIOs could then seek to replicate successful practices across their service area, resulting in positive movement in each of the patient safety metrics. Within one year of the 9th SOW contract, QIOs had made considerable progress in laying a firm foundation that will ultimately result in better clinical outcome measures for beneficiaries.

Below is a summary of the 28-month results by Patient Safety Theme Components[4].

Patient Safety 28th Month Measures	**Targets**	**Results**
MRSA infection rate per 1000 patient days	28% reduction in one of the two MRSA metrics compared to baseline in at least	100% Pass

[4] 28th month targets were modified through a contract modification dated December 2010.

	50% of those hospitals that have reported on the module for at least four months during the baseline period and at least four months during the re-measurement period, or 70% of recruited units/facilities report both MRSA measures for at least 4 months during the baseline and re-measurement periods.	
Restraints-Long stay residents	20% relative improvement from baseline	100% Pass
Pressure Ulcer-Long stay residents	8% relative improvement from baseline	96% Pass
Drug Drug Interaction	Submit measurable 28th month goal	100% Pass
Potentially Inappropriate Medication	Submit measurable 28th month goal	
Surgical Care Improvement Project (SCIP) measures are listed below:	Same targets for all of the SCIP measures listed	85% Passed for all of the SCIP measures listed
Surgery Patients on a Beta Blocker Prior to Arrival Who Received a Beta Blocker During Perioperative Period	70% of the difference between the QIO's baseline and the 2007Q1 10% ABC. The QIO must achieve the above criteria for at least 70% of the SCIP measures each of which have an aggregate caseload of more than 5 for the re-measurement quarter.	85% Passed
Timely prophylactic antibiotic admin		
Prophylactic antibiotic selection for surgical patients		
Hospital Pressure Ulcer	31% of participating hospital follow established protocols for treatment of pressure ulcers 28th month – 5% relative improvement in hospital pressure ulcers	100% Pass At the 18 month evaluation period, hospital reporting of pressure ulcers had decreased due to a change in payment for the data. In review of that data most hospitals had rates of .019% - .012%. it was decided that the work would cease and funds

		redistributed.
Nursing Home in Need (NHIN) Pressure Ulcers NHIN Physical Restraints	≥ 12 mos working with nursing home: 6% Rate or 7% relative improvement <12 mos: Evaluated on recruitment and retention strategies, technical assistance and completion of Root Cause Analysis (RCA) ≥12 mos working with nursing home: 3% Rate or 7% relative improvement <12 mos: evaluated on recruitment & retention strategies, technical assistance and completion of Root Cause Analysis (RCA)	36 QIOs passed all NHIN components 19 QIOs did not pass the 28th month target 8 QIOs did not work with nursing homes at the 28th month evaluation

Pressure Ulcers: Pressure Ulcers are a painful, costly, and largely preventable condition that when not appropriately treated can cause serious illness and even death. In the 9th SOW, QIOs were tasked with reducing pressure ulcer rates in both the long term care and hospital settings. Due to unavailability of hospital level pressure ulcer data, the hospital task was halted at the 18th month evaluation period and funds redistributed to other areas within the contract therefore, QIOs only worked in the long term setting. Because pressure ulcers can generally be attributed to system failures, the QIOs were tasked with ensuring that the foundations for improvement were in place with the issuance of two process measures in the long term care setting. Fifty one of the 53 QIOs evaluated in the NH PrU component passed, resulting in a 96% overall pass rate, resulting in a 24% average relative improvement (based on average baseline & re-measurement).

Physical Restraints: The use of physical restraints can greatly diminish the quality of life for our long term care beneficiaries. The QIO program was dedicated to dramatically reducing the utilization rate of physical restraints in the 9th SOW. All 49 of the QIOs evaluated in the nursing home physical restraint component passed, resulting in a 100% pass for the component, resulting in a 60% average relative improvement (based on average baseline & re-measurement).

MRSA: Methicillan-Resistant Staphyloccus Aureus is a rising threat to patients and little is known about the prevalence or incidence of MRSA in particular settings. CMS in conjunction with many of its HHS counterparts worked to better understand these rates by working with providers in the acute care setting to report MRSA cases into the

National Healthcare Safety Network (NHSN) Multidrug-Resistant Organism and C. difficile Infection (MDRO/CDI) Module . Considerable time and energy was spent by the QIO community in assisting providers with the proper reporting processes on the NHSN-MDRO. Due to the low rates of both MRSA infection and transmission as reported in the NHSN, a modified strategy for assessing QIO performance was introduced on June 23, 2009. All of the 53 QIOS evaluated passed this component resulting in a 100% pass for the component.

SCIP/HF: The Surgical Care Improvement Project is a national quality partnership of organizations focused on improving surgical care by significantly reducing surgical complications. This suite of measures are publically reported and tied to reimbursement of hospitals resulting in moderate rates of adherence. The Heart Failure Measure was added by a contract modification in July, 2009 due to the large numbers of patients who suffer from heart failure after surgery and because there was considerable improvement to be made in the measure. QIOs working in the SCIP/HF component at the 28th month were expected to have implemented the processes associated with high performance of the measure and then shift to an outcome measure which was established on national benchmarks. Forty-four of the 52 QIOs[5] evaluated in the component passed, resulting in an 85% overall pass rate.

Drug Safety: Under this component, QIOs in accordance with Section 1154(a)(17), as amended by Section 109(b) of the Medicare Prescription Drug, Improvement and Modernization Act of 2003, were required to offer quality improvement assistance pertaining to Prescription Drug Therapy to:

- All Medicare providers and practitioners;
- Medicare Advantage organizations offering Medicare Advantage plans under Part C; and
- Prescription drug sponsors offering prescription drug plans (PDPs) under Part D.

Under the 9th SOW, QIOs worked with the above entities to decrease the rates of drug interaction and potentially inappropriate medication prescribed. QIOs were given latitude to decide on the type of projects they would embark upon under this component. All of the 53 QIOs evaluated passed this component resulting in a 100% overall pass for the component.

Nursing Homes in Need: QIOs were expected to provide direct technical assistance to a small number of nursing homes, up to three per contract year, that had been identified by Survey and Certification as Special Focus Facilities (SFF) and needing quality improvement assistance. QIOs were evaluated on their ability to improve physical restraints and pressure ulcers as well as the homes' overall satisfaction with the assistance received. While the QIOs were being evaluated on clinical outcome measures, the assistance they provided was varied based upon the improvements each nursing home

[5] Hospitals in the U. S. Virgin Islands were not required to submit SCIP data to CMS under pay-for-reporting rules, based on provisions in the Social Security Act. Thus, the QIO for the Virgin Islands did not have an adequate number of hospitals upon which to base its performance on this measure.

needed in order to graduate from the SFF list. Thirty-six of the 45 QIOs[6] evaluated on the NHIN component passed resulting in an 80% overall pass rate for the component.

Theme C.6.3. Prevention

CMS recognizes the crucial role that health care professionals play in promoting potentially lifesaving preventive services and screenings to Medicare patients, educating beneficiaries, and providing the care. Statistics show that while Medicare beneficiaries visit their physician on an average of six or more times a year, many of them are not aware of their risk for disease or even that they may already have a condition that preventive services are intended to detect. QIOs can assist physician practices and beneficiaries in understanding the importance of disease prevention, early detection, and lifestyle modifications that support a healthier life. The QIOs can also assist physicians in using electronic health records (EHR), which can improve communications between patients and providers, giving patients better access to timely information. EHR can also improve physician office efficiency.

The Prevention Theme contained two cancer screening Tasks (breast cancer and colorectal cancer (CRC)), two immunization Tasks (Influenza and Pneumonia). The sub-national Themes for Disparities and CKD included Tasks related to diabetes self-management and chronic kidney disease (CKD) prevention.

For the Core Prevention Theme, the QIO was required to improve rates for mammography and colorectal cancer screening, and influenza and pneumonia vaccinations among Medicare beneficiaries. To achieve these goals, the QIO recruited Participating Practices (PPs) from its state/jurisdiction. To be enrolled as a PP, the practice site must have implemented and be presently using a Certification Commission for Health Information Technology (CCHIT) certified electronic health record (EHR). The QIO assisted each PP in the use of its EHR to redesign and/or implement care management and patient self-management interventions for preventive service needs. The QIO educated each PP on using its EHR capabilities and QIO interventions to improve rates of breast cancer and CRC screening and immunizations.

There were 8 Tasks associated with the Prevention core theme:

- Recruitment of participating practices (PPs);
- Identification/recruitment of non-participating practices (NPs);
- Promotion of care management processes for preventive services using EHR (post-recruitment educational sessions);
- Completion of an assessment of care processes;

[6] At the midpoint of the 9th SOW period, a handful of NHIN/SFF projects were deemed too challenging to yield likely success in improving nursing home quality through QIO intervention. Thus, CMS determined that the best use of taxpayer funds would be to direct QIOs towards other efforts more likely to have a positive impact on Medicare beneficiaries. In those limited situations, QIOs were asked to discontinue working with NHINs/SFFs in their state, and the NHIN/SFF project was removed from the QIO's portfolio in whole or in part, depending on the severity of the problem. In very small states (e.g., Vermont) the number of SFFs available was too small to support a full-scale NHIN project.

- Submission of PP and NP data to CMS (EHR-derived rates);
- QIO monitoring of statewide rates (mammograms, CRC screens, influenza immunizations, pneumococcal pneumonia immunizations) and disparities
- Production of an annual report; and
- Optimization of performance.

At the 28th month evaluation (i.e, the 9th Quarter of the contract period), QIOs were expected to have: 1) recruited and maintained at least 80% of the PP target number through 12/31/09; 2) provided 90% of PPs with post-recruitment education on the task; and 3) have at least 70% of recruited PPs electronically reporting quality data (rates) at least 3 times for each of the 4 clinical measures to the QIO, CMS or support contractor. QIOs were also expected to have shown a 7% increase in breast cancer screenings, influenza and pneumococcal immunizations and a 10% increase in colorectal cancer screenings. 49 of the 53 QIOs evaluated passed this component, resulting in a 92% overall pass rate. Four QIOs (Arizona, Puerto Rico, South Carolina and the Virgin Islands) did not pass this component.

The chart below identifies the Core Prevention 28th month evaluation measures, targets and results. [7] Per the table below: At the 28th month evaluation, each QIO was expected to show at least a:

- 7% average relative improvement in the screening mammography rates (among the offices they worked with that were reporting rates)
- 10% average relative improvement in the colorectal cancer screening rates (among the offices they worked with that were reporting rates)
- 7% average relative improvement in the influenza immunization rates (among the offices they worked with that were reporting rates)
- 7% average relative improvement in the pneumococcal pneumonia vaccination rates (among the offices they worked with that were reporting rates)

The QIOs met all of these 28th month targets.

Measures	**Targets**	28th Month Results
Maintenance of participating practices (PPs) -- through 10/31/10	Maintained 80% of participating practices	All QIOs maintained at least 80% of participating practices
Complete reporting	70% of participating practices reported at least 3 times for each of the 4 clinical measures	All QIOs had at least 70% of their participating practices reporting

[7] 28th month targets were modified through a contract modification dated July 2009.

		at least 3 times for each of the 4 measures
Average relative improvement in screening mammography rate	7%	1 QIO did not achieve this relative improvement rate (PR)
Average relative improvement rate in CRC screening rate	10%	1 QIO did not achieve this relative improvement rate (AR)
Average relative improvement rate in influenza vaccination	7%	2 QIOs did not achieve this relative improvement rate (SC & VI)
Average relative improvement rate in pneumococcal pneumonia vaccination (PPV)	7%	2 QIOs did not achieve this relative improvement rate (PR & SC)

Sub National Themes

Theme C.7.1. Prevention Disparities

This Task was limited to a sub-set of states with sufficient underserved Medicare diabetes populations, as determined by CMS. Underserved Populations are those persons who are African-American, Hispanic/Latino, Asian/Pacific Islander, or American Indian/Alaska Native. The QIOs which were eligible to compete for a contract served one of the following 33 states, territories, and District of Columbia: AL, AR, AZ, CA, CT, DC, DE, FL, GA, HI, IL, IN, KY, LA, MA, MD, MI, MO, MS, NC, NJ, NM, NY, OH, OK, PA, PR, SC, TN, TX, VA, WA, WI. Contracts were awarded to: DC, GA, LA, MD, NY and Virgin Islands.

The QIO identified both the practice sites and the ancillary organizations (e.g., community health centers, senior centers, faith-based organizations, etc.) that it would work with as part of the CMS-approved Diabetes Self-Management Education (DSME) process. The QIO facilitated training of appropriate personnel (e.g., nurses, Certified Diabetes Educators (CDEs), Community Health Workers (CHWs), etc.) at the identified organizational sites using evidence-based DSME programs within the underserved population of the Participating Practices (PPs). The QIO was required to establish a partnership with the primary care physician (PCP), CDE, and CHW to facilitate the accessibility of DSME services to patients. The QIO was required to work with the PPs

to improve/increase their adherence to clinical guidelines for appropriate use of utilization measures for HbA1c, Lipids, and Eye Exams, as evidenced by Medicare fee-for-service claims billed by physicians for beneficiaries in priority populations with diabetes.

The chart below identifies the Disparities 28th month evaluation measures, targets, and results.[8]

Measures	Targets	Results
Maintain % recruitment	80% of the participating practices	100% pass
Increase % of beneficiaries completing DSME training	55% of recruited beneficiaries had to complete DSME	
HbA1c	8% Reduction in failure Rate	100% pass
Eye Exam	4% Reduction in Failure Rate	100% pass
Lipids	8% Reduction in Failure Rate	100% pass
Blood Pressure (BP) PQRI	7% Relative improvement rate	100% pass

By the end of the 28th month all of the participating QIOs had maintained at least 80% of the participating practices. All QIOs had also increased the percentage of beneficiaries completing DSME training by 55%. Other targets for the 28th month evaluation included improving the relative improvement rate for blood pressure control by 7% for practices reporting PQRI data. All six QIOs evaluated for this component passed, resulting in a 100% overall pass rate.

Theme C.7.2. Care Transitions

The QIO work under the Care Transitions Theme aimed to measurably improve the quality of care for Medicare beneficiaries who transition among care settings through a comprehensive community effort. These efforts aimed to reduce readmissions following

[8] 28th month targets were modified through a contract modification dated July 2009.

hospitalization[9] and to yield sustainable and replicable strategies to achieve high-value health care for sick and disabled Medicare beneficiaries. QIOs having contracts served the following States: AL, CO, FL, GA, IN, LA, MI, NE, NJ, NY, PA, RI, TX, and WA. In the first year of the 9th SOW, the 14 QIOs had defined their communities with precision, conducted root cause analyses in their communities and had begun to implement evidence based interventions based on the Table of Evidence Based Interventions listed in the SOW.

The chart below identifies the Care Transitions 28th month outcome measures results[10].

Measures	Targets	Results
O-4 (Global)	Reduce rate of readmission by a statistically significant rate. The reduction must be at least 2 percentage points. (Calculation = Baseline% - 2%)	86% of QIOs achieved (12/14)
O-5a (CHF)	Reduce rate of readmission by at least 2 percentage points from the baseline rate in at least one of the specific diagnoses	O-5 measures were removed from contract evaluation.
0-5b (AMI)	Reduce rate of readmission by at least 2 percentage points from the baseline rate in at least one of the specific diagnoses	O-5 measures were removed from contract evaluation.
O-5c (PNE)	Reduce rate of readmission by at least 2 percentage points from the baseline rate in at least one of the specific diagnoses.	O-5 measures were removed from contract evaluation.
O-1a	8% relative reduction in failure rate from baseline	36% of QIOs achieved (5/14)
O-1b	8% reduction in baseline failure rate from baseline	71% of QIOs achieved (10/14)

[9] In this contract, "hospitalization" refers to "acute care" hospitals reimbursed by Medicare under PPS. This does not include critical access hospitalization that is not followed by hospitalization at a PPS hospital, nor does it include psychiatric hospitals, inpatient rehabilitation facilities, long-term acute care hospitals, or other special-purpose hospitals.

[10] 28th month targets were modified through a contract modification dated July 2009.

O-2	8% reduction in failure rate from baseline	21% of QIOs achieved (3/14)
O-3	1 or more interventions, affecting at least 10% of transitions must show improvement	100% QIOs achieved (14/14)
O-6	8% relative improvement from baseline	This measure was removed from contract evaluation.

Measure O-4 is the number of readmissions per 1000 Medicare FFS beneficiaries residing in the specified geographic area that occur within 30 days of discharge from an acute care hospital

Measure O-5a is 30 day all-cause risk standardized readmission rates following CHF-hospitalizations.

Measure O-5b is 30 day all cause risk standardized readmission rates following AMI hospitalizations.

Measure O-5c is 30 day all cause risk standardized readmission rates following pneumonia hospitalizations.

Measure O-1a is % of patients over 65 years who rate hospital performance meeting H-CAHPS performance standard for medication management

Measure O-1b is % of patients over 65 years who rate hospital performance meeting H-CAHPS performance standard for discharge planning

Measure O-2 is % of patients discharged and readmittted within 30 days who are seen by a physician between discharge and readmission

Measure O-3 is % of patient care transitions (FFS Medicare), in the specified geographic area, for which implemented and measured interventions show improvement
Measure O-6 is % of patient transitions within the specified geographic area for which a CARE instrument was used. This measure was removed from the contract in the first year. CMS was not able to implement an electronic version of the CARE tool due to privacy and security concerns.

Twelve of the 14 QIOs participating in this component passed, resulting in an 86% overall pass rate for the component. To achieve O-1, a QIO may pass either O-1a or O-1b. O-5 was dropped from the 28th month evaluation as the measure was determined to

be ineffective at measuring the impact of quality improvement efforts. Passing status was awarded to QIOs that achieved 3 of the 4 remaining measures (O-1, O-2, O-3, O-4)

The Care Transitions theme was a subnational project that was developmental in nature and included measures that had not been tested for use on a defined population residing in a community. CMS learned that when assessing the impact of quality improvement efforts to reduce 30-day hospital readmissions, it is important to look at changes in both the numerator (30 day readmissions) and denominator (admissions) as the evidence based interventions impacted both. CMS changed the O-4 measures specification at the 18 month time period to a population based measure of readmissions per 1000 and also carefully monitored changes in admissions per 1000 though this measure was not used for contract evaluation purposes. The fourteen communities participating in this work demonstrated that a community of providers and stakeholders coming together to meet the needs of the individuals they serve can reduce both hospital readmissions and admissions.

Task C.7.3. Prevention: Chronic Kidney Disease

The goal of this Theme was to detect the incidence and decrease the progression of chronic kidney disease (CKD), and improve care among Medicare beneficiaries through provider adoption of timely and effective quality of care interventions; provider participation in quality incentive initiatives; beneficiary education; and key linkages and collaborations for system change at the state and local level.

In developing its plan, the QIOs awarded contracts in this area considered providing technical assistance to providers and practitioners in Medicare quality measure reporting programs that were directly aligned, and supported the CKD clinical focus areas defined in this SOW. Such quality measure reporting programs could include the Physician Quality Reporting Initiative (PQRI), which accepts measures that are similar to the QIO clinical focus areas for CKD, and other targeted CMS-sponsored quality initiatives that support the achievement of the CKD clinical focus areas and are consistent with QIO statutory authority for quality improvement.

The QIOs charged with improving care for people with CKD partnered with participating providers to identify and implement needed health systems changes. This process is referred to as "academic detailing" and "practice coaching." Local coalitions made up of a variety of provider, state, and patient organizations worked to promote the common goals of preventing the progression of kidney disease and improving kidney care. QIOs used materials identified from their partners (and in some cases supplemented those evidence-based materials with materials developed in-house) to help healthcare providers analyze their workflow. This process is in keeping with utilizing the Chronic Care Model to improve care. The model emphasizes Delivery System Design, Decision Support and Clinical Information systems.

The Chronic Care Model is comprised of several thematic elements that when combined improves care in health systems at the community, organization, practice and patient

levels. QIOs adopted several thematic processes included in the Chronic Care Model. For example, QIO interventions incorporated elements titled Delivery System Design, Decision Support and Clinical Information Systems that are some of the formalized concepts constituting the Chronic Care Model. QIOs having CKD Task contracts served the following States: FL, GA, MO, MT, NV, NY, RI, TN, TX, and UT. In addition, the QIO in the Virgin Islands (VI) worked on CKD as part of its core contract.

The focus areas for quality improvement in CKD included:

- Annual testing to detect the rate of kidney failure due to diabetes;
- Slowing the progression of disease in hypertensive individuals with diabetes through the use of angiotensin converting enzyme (ACE) inhibitor and/or an angiotensin receptor blocking (ARB) agent; and
- Arteriovenous fistula (AV fistula) placement and maturation (as a first choice for arteriovenous access where medically appropriate) for individuals who elect, as a part of timely renal replacement counseling, hemodialysis as their treatment option for kidney failure.

In addition to the above, each QIO identified, in its proposal, disparities existing in its state, a strategy for reducing the disparity, and the target to be achieved. The QIO included, as a component of its plan, activities aimed at the reduction of any disparities in care, such as ethnic, racial, socio-economic, geographic, and other forms of inequity that may exist within its state.

The chart below identifies the CKD 28th month evaluation measures, targets, and results[11].

Measures	**Targets**	**Results**
% Timely urinary microalbumin testing	10% relative improvement	100% passed
% AV fistula placement rate	10% reduction in failure rate to 66% target	55% passed

[11] 28th month targets were modified through a contract modification dated July 2009.

Six (55%) of the 11 QIOs (MT, NV, NY, RI, TN and UT) contracted for work in the CKD Theme passed. Five (45%) of the 11 QIOs (FL, GA, MO, TX and VI) did not pass.

The table below illustrates the QIO 28th Month Evaluation of the 9th SoW.

State	Beneficiary Protection	Patient Safety	Prevention Core	Disparities	Care Transitions	CKD
Alabama	Pass	Fail (NHIN)	Pass	N/A	Pass	N/A
Alaska	Pass	Pass	Pass	N/A	N/A	N/A
Arizona	Pass	Pass	Pass	N/A	N/A	N/A
Arkansas	Pass	Pass	Pass	N/A	N/A	N/A
California	Pass	Pass	Pass	N/A	N/A	N/A
Colorado	Pass	Pass	Pass	N/A	Pass	N/A
Connecticut	Pass	Pass	Pass	N/A	N/A	N/A
DC	Pass	Pass	Pass	Pass	N/A	N/A
Delaware	Pass	Pass	Pass	N/A	N/A	N/A
Florida	Pass	Pass	Pass	N/A	Fail	Fail
Georgia	Pass	Pass	Pass	Pass	Fail	Fail
Hawaii	Pass	Pass	Pass	N/A	N/A	N/A
Idaho	Pass	Pass	Pass	N/A	N/A	N/A
Iowa	Pass	Fail (NHIN, NH PrU)	Pass	N/A	N/A	N/A
Illinois	Pass	Pass	Pass	N/A	N/A	N/A
Indiana	Pass	Pass	Pass	N/A	Pass	N/A
Kansas	Pass	Fail (SCIP)	Pass	N/A	N/A	N/A
Kentucky	Pass	Pass	Pass	N/A	N/A	N/A
Louisiana	Pass	Pass	Pass	Pass	Pass	N/A
Maine	Fail (Bene Sat CompProc)	Pass	Pass	N/A	N/A	N/A
Maryland	Pass	Pass	Pass	Pass	N/A	N/A
Massachusetts	Fail (SW change)	Pass	Pass	N/A	N/A	N/A
Mississippi	Pass	Fail (NHIN)	Pass	N/A	N/A	N/A
Michigan	Pass	Fail (SCIP)	Pass	N/A	Pass	N/A
Minnesota	Pass	Fail (NHIN)	Pass	N/A	N/A	N/A
Missouri	Pass	Pass	Pass	N/A	N/A	Fail
Montana	Pass	Pass	Pass	N/A	N/A	Pass
Nebraska	Pass	Fail (NHIN)	Pass	N/A	Pass	Pass
Nevada	Pass	Pass	Pass	N/A	N/A	N/A
New Hampshire	Pass	Pass	Pass	N/A	N/A	N/A
New Jersey	Pass	Pass	Pass	N/A	Pass	N/A
New Mexico	Pass	Fail (SCIP)	Pass	N/A	N/A	N/A
New York	Pass	Pass	Pass	Pass	Pass	Pass
North Carolina	Pass	Pass	Pass	N/A	N/A	N/A
North Dakota	Pass	Fail (NHIN)	Pass	N/A	N/A	N/A
Oklahoma	Pass	Fail (NHIN)	Pass	N/A	N/A	N/A
Ohio	Pass	Pass	Pass	N/A	N/A	N/A
Oregon	Pass	Pass	Pass	N/A	N/A	N/A
Pennsylvania	Pass	Pass	Pass	N/A	Pass	N/A
Puerto Rico	Pass	Pass	Fail	N/A	N/A	N/A
Rhode Island	Pass	Pass	Pass	N/A	Pass	Pass
South Carolina	Pass	Pass	Fail	N/A	N/A	N/A
South Dakota	Pass	Fail (NHIN)	Pass	N/A	N/A	N/A
Tennessee	Pass	Pass	Pass	N/A	N/A	Pass
Texas	Pass	Fail (NH PrU, SCIP)	Pass	N/A	Pass	Fail
Utah	Pass	Pass	Pass	N/A	N/A	Pass
Vermont	Pass	Pass	Pass	N/A	N/A	N/A
Virginia	Pass	Pass	Pass	N/A	N/A	N/A
Virgin Islands	Fail (Review Timeliness)	Fail (SCIP)	Fail	Pass	N/A	Fail

Washington	**Pass**	**Fail (SCIP)**	**Pass**	**N/A**	**Pass**	**N/A**
West Virginia	**Pass**	**Fail (NHIN, SCIP)**	**Pass**	**N/A**	**N/A**	**N/A**
Wisconsin	**Pass**	**Pass**	**Pass**	**N/A**	**N/A**	**N/A**
Wyoming	**Pass**	**Fail (SCIP)**	**Pass**	**N/A**	**N/A**	**N/A**

Overall the chart indicates that for Beneficiary Protection, there was a 94% overall pass rate for the Theme. 50 of the 53 QIOs evaluated passed.

For Patient Safety and Associated Components: Nursing Homes In Need (NHIN), there was an eighty percent overall pass rate for the component. This means that 36 of the 45 QIOs evaluated on the NHIN component passed.

For Nursing Homes Physical Restraints (NH PR), there was a 100% overall pass rate. All 49 (100%) of the QIOs evaluated in the NH PR component passed. Three QIOs were not evaluated on this component due to the lack of patient episodes from which to evaluate. One QIO was not evaluated in this component because the work was removed from the contract related to the inability to achieve the measure targets.

For Nursing Home Pressure Ulcers (NH PrU), there was a 96% overall pass rate. 51 of the 53 QIOs evaluated in the NH PrU component passed. Two QIOs did not pass.

For Surgical Care Improvement Project (SCIP), there was an 85% overall pass rate. 44 of the 52 QIOs evaluated in the SCIP component passed. One QIO was not evaluated on this component.

For Methicillin Resistant Staphylococcus Aureus (MRSA), there was a 100% overall pass rate. All of the 53 QIOs evaluated passed. For Drug Safety, there was a 100% overall pass rate. All of the 53 QIOs evaluated passed.

For Patient Safety, there was a 94% overall pass rate.

For Prevention Core, there was a 92% overall pass rate. 49 of the 53 QIOs evaluated passed. Four (8%) QIOs did not pass.

For Prevention Disparities, there was a 100% overall pass rate. All six of the participating QIOs evaluated passed.

For Care Transitions, there was an 86% pass rate. 12 of the 14 QIOs contracted for work in the Care Transitions Theme passed.

For Prevention Chronic Kidney Disease (CKD), there was a 55% overall pass rate. Six of the 11 QIOs contracted for work in the CKD Theme passed. Five of the 11 did not pass.

Program Evaluation

On August 2008, CMS awarded a competitive contract to Mathematica Policy Research of Washington D. C. to design and conduct an evaluation of both the 8th and 9th SOWs of the QIO Program on regional and national health outcomes and processes. Mathematica performed its analysis over the period from August 4, 2008 through December 1, 2011.

Evaluations of large and complex programs entail much work during the contract time period; the work by Mathematica was closely monitored by and coordinated with the government. Below are some of the process steps, which were ongoing over the course of the evaluation but not necessarily discrete events; these steps were integral to and intertwined with the end work product, i.e., the evaluation itself. The QIO contractor must also consider the ever changing nature of healthcare and its patient population; as part of that QIO responsibility, the QIO should attend to new methods and research findings, which although external to the QIO program, may impact it in unexpected ways.

The evaluation project entailed the following work by Mathematica:

1. literature search and review;
2. a deep and rich understanding of the program, its vision, aims and goal;
3. conceptual framework of the program and key points of program effect;
4. initial plan of approach to the evaluation;
5. survey development and Paperwork Reduction Act process;
6. data acquisition;
7. data validation;
8. analytical methods review and testing;
9. analytical runs;
10. data analysis;
11. surveys and interviews with stakeholders;
12. interim reports and discussions;
13. integration of all of the above into draft final reports of findings and methods;
14. review findings; and,
15. a final report.

Items 6 to 15 above occurred over the course of the last 12 months of the project (January – December 2011).

In keeping with the prior evaluations and consistent with recommendations of the IOM and other reports, the evaluation by Mathematica addressed not only Program impact but also the mechanisms whereby this occurs.

The QIO performance evaluation performed by Mathematica focused on these major areas: [1]

[1] Mathematica Policy Research Independent Evaluation of the Ninth Scope of Work, QIO Program: Final Report, Final Report Volume I: Findings November 11, 2011, Volume II: Methods September 19, 2011, Volume IIIL Data Collection Instruments Sept 19, 2011

- The relative impact of the QIO on the quality of care of Medicare beneficiaries in the geographic area served by the QIO.
- The QIO program's impact on the quality of care provided to Medicare beneficiaries nationwide.
- Determining if the QIO Program improved healthcare for the underserved beneficiaries and adequately addressed the healthcare disparities issue.
- Cost and benefits of the QIO Program.
- Overall cost-benefit ratio of the QIO Program.
- Factors that mediate the cost-benefit ratio across states, across regions, and nationally.
- Utility (Quality Adjusted Life Years - QALYs) of the various improvements.

There remained nine quality measures subject to rigorous statistical analysis. The Mathematica evaluation concluded that it could not attribute improvements among these nine measures solely to QIO efforts because there are other simultaneous non-QIO quality improvement activities related to those serious healthcare issues, all contributing to move the measure.

No independent QIO impact was found for:

1. Surgery patients given the correct perioperative antibiotic.
2. Surgery patients needing hair removed from surgical area before surgery.
3. Heart failure patients given important heart drugs (ACE inhibitors or ARBs) for left ventricular systolic dysfunction.
4. Long-stay nursing home residents with pressure ulcers (bedsores).
5. Patients with CKD with a surgically constructed "AV fistula" at the time they begin hemodialysis.
6. Patients discharged for either: a) acute myocardial infarction (AMI), b) pneumonia, or c) congestive heart failure (CHF), who were readmitted to the hospital within 30 days for any reason (three measures); or patients discharged for any of these three conditions with a 30-day readmission (combined single measure).

The Mathematica Evaluation Report stated with regard to readmissions, "It should be noted that a separate, concurrent study by the Colorado Foundation for Medical Care (CFMC) has found favorable impacts on readmission rates from the care transitions theme. . ." The Mathematica quote reinforces the difficulty in finding independent attribution for measures change in the midst of multifarious national efforts to improve.

IV. CONCLUSION

In summary, American seniors, the disabled, and all Medicare beneficiaries deserve to have confidence in their health care system. A system that delivers the right care to every person every time is the way to achieve that goal. The QIO Program—with a national network of knowledgeable and skilled independent organizations under contract with Medicare, is charged with identifying and spreading evidence based best healthcare practices. The work of the QIO Program has been, and will continue to be, a major contributing factor for improvements in American healthcare.

This particular scope of work resulted in many improvements in beneficiary care as well as outcome measures. Many of the outcome measures have greatly assisted with preserving the Medicare Trust fund. Some examples of savings include:

- More than 1,900 quality improvement activities were implemented for 98% of confirmed quality of care concerns;
- QIOs implemented 140 system-wide quality improvement interventions;
- 97% or all IPPS hospitals successfully participated in the Hospital Inpatient Quality Reporting Program making it possible to now move to pay for performance;
- 100% overall pass rate for the 49 QIOs participating in Nursing Homes Physical Restraints (NH PR) component. ;
- 96% pass rate for 51 of 53 QIOs evaluated in the Nursing Home Pressure Ulcer (PrU) component.

The Program evaluation of the 9th SOW found that the QIO program produced statistically significant independent impacts on 4 of 13 measures subject to rigorous statistical analysis. The report found, "The improvements are substantial in size for three of the four measures for which the QIOs demonstrated an impact."

Independent QIO impact was found for:

1. Surgery patients whose doctor ordered treatments to prevent blood clots after certain types of surgeries.
2. Surgery patients who were taking heart drugs called beta-blockers before coming to the hospital and kept on the beta-blockers during the period just before and after their surgery.
3. Patients with diabetes with testing for urinary microalbumin (which signals early kidney damage).

This report demonstrates the success of the QIOs in carrying out the contract while tremendously improving the care provided to the Medicare beneficiaries and preserving the Medicare Trust Fund.

During the reporting period, CMS continued the success of the 9th SoW by developing the10th SoW to target the clinical quality improvement areas that are likely to have the greatest impact on the health of the greatest number of Medicare beneficiaries. This was achieved by aligning the quality improvement priorities with other Departmental priorities. CMS specifically organized the 10th SoW themes to reflect priority areas that were identified by the Department. The 10th SoW was structured to: reduce disparities in access and in quality for priority populations, increase use of health information technology, reduce adverse events related to healthcare acquired infection, increase care efficiency by promoting value within the health system and improve the quality of life for patients nearing the end of life by alleviating pain and other distressing symptoms.