



QIO Efforts to Reduce Healthcare Disparities 2002-2005

Final Report of Progress, Findings,
and Results of QIO Projects



**QIO Efforts to Reduce
Healthcare Disparities 2002-2005
Table of Contents**

Table of Contents	i
List of Figures & Tables in this Report	ii
Executive Summary	1
Introduction	4
Interventions	8
Partnerships	12
Results	14
Conclusions	24
Recommendations	26
References	28
Appendix A:	29
7 th SoW QIO Project Listing	
Appendix B:	31
QIO Intervention Table	
Appendix C:	34
6 th SoW & 7 th SoW Absolute Improvement & Reduction in Disparity Comparison	
Appendix D:	37
QIO Individual Project Summary Reports	

List of Figures and Tables

Table 1:	5
Clinical Topics in the QIO 7 th SoW	
Table 2:	6
Comparison of 6 th SoW Versus 7 th SoW Population Selection	
Table 3:	7
6 th SoW Versus 7 th SoW Clinical Topic and Selection	
Figure 1:	16
Percentages of States with Absolute Improvement, Reduction in Disparity, and Intervention Effectiveness	
Table 4:	17
Task 7 th SoW Baseline, Remeasurement, Relative Improvement, Reduction in Disparity, and Intervention Effectiveness Rates	
Table 5a:	20
Median Absolute Improvement Rate by Targeted Population and Clinical Topic	
Table 5b:	21
Median Relative Improvement Rate by Targeted Population and Clinical Topic	
Table 5c:	21
Median Reduction in Disparity Rate by Targeted Population and Clinical Topic	
Table 6:	23
Comparison in States with Same/Different Project in 6th SoW Versus 7th SoW	

Quality Improvement Organization Efforts to Reduce Disparities
2002-2005
7th Statement of Work Summary Report

Executive Summary

For the past six years Quality Improvement Organizations (QIOs), under contract with the Centers for Medicare & Medicaid Services (CMS), have developed interventions to reduce healthcare disparities. Working with local, regional and statewide partners, QIOs targeted those populations and clinical topics that presented the most opportunity for improvement. QIOs compete for three-year contracts from CMS. These contracts are known as statements of work (SoW). In the most recently completed 7th SoW, QIO work, though similar in structure to the 6th SoW (1999-2002), often focused on different targeted populations and/or clinical topics.

In 2002, CMS added rural communities to the list of the underserved populations eligible for QIO disparity reduction efforts. The other underserved populations eligible for QIO disparity selection were African Americans, Asian/Pacific Islanders, American Indian/Alaskan Natives, Hispanics and those beneficiaries enrolled in both Medicare and Medicaid (Dually Enrolled). As in the 6th SoW, QIOs used data collected from either claims or medical record abstraction to select a single quality indicator from one of seven clinical topics to focus their intervention efforts. Surgical Infection Prevention (SIP) was added as a new clinical topic in the 7th SoW, while Stroke was eliminated due to changing clinical practice and almost 100 % compliance with existing treatment guidelines for the stroke measures. The remaining clinical topics were Acute Myocardial Infarction (AMI), Heart Failure, Pneumonia, Adult Immunizations, Breast Cancer and Diabetes.

Most QIOs targeted the African American population for their disparities reduction efforts. This is not surprising given that African Americans represent the largest minority group in the United States and generally the largest underserved population in 51% of states and territories. The addition of the rural population as an underserved group created the second most frequently targeted population, favored by QIOs working with states in the Midwest and Northwest. Projects focusing on the dually enrolled population declined dramatically from the 6th SoW.

The introduction of the rural population created a greater opportunity to evaluate disparities in the acute care provider setting. Nineteen QIOs collaborated with rural communities and hospitals to incorporate the adoption of clinical guidelines and to introduce QIO interventions that had demonstrated effectiveness in earlier statewide efforts.

Twenty-three QIOs adopted disparities reduction interventions in diabetes. Diabetes was selected largely based on the ability to impact the associated quality indicators through directed physician activities such as academic detailing and provider education. QIOs that focused on breast cancer and immunization relied heavily on the lessons learned in the 6th SoW, which demonstrated the need to have multi-component interventions targeted at both the provider and the beneficiary to achieve positive outcomes.

Nearly all QIOs established or maintained community partnerships and/or community advisory boards to reach out directly to the underserved community. Places of worship remained one of the most popular intervention sites.

For the 52 QIO states and territories participating in the underserved project, 49 (94.2%) demonstrated an absolute improvement in the targeted underserved population. Forty-six of 52 states and territories (88.5%) demonstrated a reduction in disparity when contrasted with a non-underserved comparison group (white, non-dually enrolled; whites; or urban areas) while 6 of 52 (11.5%) did not. Twenty-seven of 45 states and territories (60.0%) demonstrated a greater absolute improvement in measure performance relative to a national control group.

QIO efforts to reduce healthcare disparities continue to demonstrate positive results. Perhaps the most dramatic impact is demonstrated among those states that worked to reduce disparities in diabetes management. The 23 states that focused on this clinical topic demonstrated a median absolute improvement of 12.6 percentage points for the selected clinical indicator (Hemoglobin A1c test, eye exam, or lipid profile), representing a 33.4% relative improvement over baseline. The median reduction in disparity of 5.5% clearly demonstrates QIO effectiveness at improving diabetes indicator rates among the underserved.

Fourteen diabetes projects targeted African Americans, the largest single clinical topic and population combination. The absolute median improvement in the selected diabetes indicator was 12.8 percentage points or a 36.3% relative improvement over baseline. The median reduction in disparity was 5.5% when compared to the white, non-dually enrolled population.

While the results discussed here are encouraging, opportunities for improvement remain. The 7th SoW activities indicate that QIO efforts continue to have a positive impact on the quality of healthcare services received by Medicare beneficiaries who are members of underserved groups.

Recommendations

1. Increase CMS funding in support of QIO disparity efforts. Reducing healthcare disparities requires resources, yet the QIO's quality improvement program budget apportionment represents only 3.4% of the QIOs total program costs.
2. Design and launch a national campaign to address healthcare disparities. QIO efforts to reduce disparities should focus on one or more key quality indicators as part of an overall national CMS strategy to demonstrate disparities reduction through QIO intervention.
3. Integrate the efforts of various governmental agencies to complement QIO efforts. Lessons learned from prior and ongoing national efforts should be used more effectively and tested more widely with the assistance of the national network of QIOs.

4. Extend QIO efforts to address measurable disparities that exist in other care settings such as nursing homes and home health agencies, and address disparities in the continuity of care across healthcare settings.
5. Expand QIO efforts to address disparities that come to light under the new Medicare prescription drug benefit, such as disparities in drug adherence rates between underserved and non-underserved beneficiaries suffering from chronic conditions.
6. Consider ways wherein Medicare and Medicaid data could be combined to define new opportunities to address disparities within the dually enrolled population. CMS should make the linking of these key data sources a priority for new disparities reduction activities.
7. Implement a consistent measurement program that standardizes the collection of beneficiary race and ethnicity information. A long-term strategy for assessing healthcare disparities should focus on a more consistent collection of beneficiary race and ethnicity data as separate elements.
8. Keep the Medicare Beneficiary as the focal point of QIO disparities reduction efforts. QIOs should continue to have the flexibility to address disparities reduction with a thorough knowledge of local factors that may affect the success of an intervention.

Introduction

QIOs compete for three-year contracts from CMS. These contracts are known as statements of work (SoW). In 1994, under the QIO's 4th SoW, the Centers for Medicare & Medicaid Services (CMS) directed Quality Improvement Organizations (QIOs) to begin engaging healthcare providers in efforts to improve the quality of care provided to Medicare beneficiaries. These collaborative efforts targeted high-volume clinical topics for which established treatment protocols were available.

In January 2000, *Healthy People 2010* specified elimination of healthcare disparities as one of its two overarching goals.¹ In response, the QIO's 6th SoW, efforts were expanded to include work to reduce disparities among Medicare's underserved. CMS identified five groups of beneficiaries to target for disparities reduction in QIO contract efforts: African Americans, American Indian/Alaskan Natives, Asian/Pacific Islanders, Hispanics, and the Dually Enrolled (Medicare beneficiaries who also receive Medicaid benefits). Collectively, these beneficiaries are referred to as the underserved. In the most recently completed 7th SoW, QIO work, though similar in structure to the prior three years, focused on additional targeted populations and/or clinical topics.

While the QIO's primary goal is to improve healthcare quality, this initiative further focuses QIO efforts on eliminating gaps in quality of care measures that exist between underserved and non-underserved (usually defined as the white population) Medicare beneficiaries. To address these gaps QIOs, in addition to developing interventions that promote the widespread use of evidence-based guidelines for care, must also focus on developing new initiatives targeted specifically at the underserved groups.

Wide-ranging quality improvement activities provide a degree of efficiency and sustainability due to the application of evidence-based care across a large population, yet the consequences of these global and more generalized efforts often result in a counter-current to reducing disparities between subgroups within the population. Improved care derived from these process changes filter across all segments of the population, the so-called "rising tide raises all boats" phenomenon. Faced with the objective of reducing these disparities within this context, QIOs must therefore adopt initiatives that are specific to the disadvantaged subgroups. Such initiatives are less efficient from a global perspective, but more likely to address the presence of health disparities between the underserved population and their non-underserved counterparts.

The federally funded work done by QIOs represents a large financial commitment for improving healthcare quality provided to Medicare beneficiaries.² Yet QIO efforts to reduce disparities represent only 3.4% of the overall \$384.6 million dollar annual QIO program budget, and only 6.5% of the \$200 million dollar annual allocation to quality improvement. Consequently, QIO projects have been limited to focusing on reducing disparities within a single underserved group for a particular quality indicator within a defined area of the state or territory. From 1999 to 2001, referred to as the QIO 6th SoW, underserved projects targeted populations defined by either race (African American, American Indian/Alaskan Native, Asian/Pacific Islander, or Hispanic/Latino) or by joint Medicare and Medicaid enrollment

(dually enrolled). QIO efforts to reduce healthcare disparities during this time are detailed elsewhere, but demonstrated an overall median reduction in disparities of just 1.4%.³ Sixty-two percent of the efforts of the states and territories demonstrated a reduction in disparities with most (78%) improving the clinical quality indicator rate within the targeted intervention group. Fifteen states improved indicator performance within the targeted group by more than 10%.

In 2002, under the QIO's 7th SoW, CMS added rural communities to the list of underserved populations eligible for QIO disparity reduction efforts. As in the 6th SoW, QIOs used data from either Medicare claims or medical record abstraction to select a single quality indicator from one of seven clinical topics (Table 1) to focus their intervention efforts. Surgical Infection Prevention represented a new clinical topic in the 7th SoW, while the clinical topic of Stroke was eliminated due to changing clinical practice and almost 100 % compliance with existing treatment guidelines for the stroke measures.

Table 1: Clinical Topics in the QIO 7th SoW

Inpatient Clinical Topic	Outpatient Clinical Topic
<p>Acute Myocardial Infarction</p> <ul style="list-style-type: none"> • Aspirin at Arrival • Aspirin Prescribed at Discharge • ACEI for LVSD • Smoking Cessation Advice/Counseling • Beta Blocker at Discharge • Beta Blocker at Arrival • Thrombolytic agent received within 30 Minutes of Arrival • PTCA within 90 Minutes of Arrival 	<p>Adult Immunization</p> <ul style="list-style-type: none"> • Influenza Vaccination • Pneumococcal Vaccination
<p>Heart Failure</p> <ul style="list-style-type: none"> • Discharge Instructions • LVF Assessment • ACEI for LVSD • Smoking Cessation Advice/Counseling 	<p>Breast Cancer</p> <ul style="list-style-type: none"> • Biennial Mammography
<p>Pneumonia</p> <ul style="list-style-type: none"> • Antibiotic Timing • Initial Antibiotic Selection • Blood Culture Performed within 24 hours of Arrival • Blood Culture Performed after Hospital Arrival and Prior to Antibiotic Dose • Influenza Vaccination • Pneumococcal Vaccination • Smoking Cessation Advice/Counseling • Oxygenation Assessment 	<p>Diabetes</p> <ul style="list-style-type: none"> • Biennial Retinal Exam by an Eye Professional • Biennial Testing of Lipid Profile • Annual HbA1c Testing
<p>Surgical Infection Prevention</p> <ul style="list-style-type: none"> • Antibiotics within 1 Hour before Surgical Incision • Prophylactic Antibiotics Consistent with Current Recommendations • Prophylactic Antibiotics Discontinued within 24 Hours of Surgery End Time 	

Each QIO selected their state’s disparity project using CMS recommended criteria for population and clinical topic selection. The criteria included:

- Having at least a 7% disparity observed at baseline between the underserved population and the non-underserved (either white, non-dually enrolled or urban) population.
- The targeted population representing a significant proportion of the total underserved beneficiaries in the state.
- The QIO intervention target area reaching at least 25% of the targeted underserved population.

Using the new 7th SoW criteria, 15 states and territories continued their disparities reduction focus from the 6th SoW while 37 states and territories made modifications to the clinical topic, the quality indicator, or the targeted underserved population. As with the 6th SoW, most QIOs targeted the African American population. This is not surprising given that African Americans represent the largest minority group in the Medicare population. African American beneficiaries are the largest underserved population in over half of the states. The addition of the rural population created the second most frequently targeted underserved population. Medicare beneficiaries living in rural communities were the subject of quality improvement activities supported by QIOs responsible for the more rural, more racially homogeneous states in the Midwest and Northwest. A comparison of population selection from the 6th versus 7th SoW is presented in Table 2.

Table 2: Comparison of 6th SoW Versus 7th SoW Population Selection

Population	6th SoW	7th SoW
African American	26	22
American Indian/Alaskan Native	2	3
Asian/Pacific Islander	1	1
Dually Enrolled	19	3
Hispanic/Latino	3	4
Rural	N/A	19
Total	51	52

The selection of clinical topics also changed in the 7th SoW. These changes were motivated, in part, by the relevant clinical issues facing beneficiaries living in rural communities, and by the success of prior quality improvement initiatives. A comparison of clinical topic selection for the 6th and 7th SoWs is provided in Table 3.

Table 3: 6th SoW Versus 7th SoW Clinical Topic Selection

	6th SoW	7th SoW
Adult Immunization	11	5
Acute Myocardial Infarction	1	1
Breast Cancer	19	9
Diabetes	19	23
Heart Failure	0	7
Pneumonia	1	6
Surgical Infection Prevention	N/A	1
Total	51	52

Please see Appendix A for a list of each state's project including targeted population, clinical topic, and associated indicator selection.

Interventions

In the 6th SoW, QIO efforts to reduce healthcare disparities were driven in large part by formative research designed to identify the barriers to healthcare faced by beneficiaries from each underserved population, and any evidence-based intervention strategies that may have been effective in reducing or eliminating these barriers. The intricacies of such QIO efforts have been described in the medical literature.⁴ Unfortunately, the work that is involved in developing and operationalizing any quality improvement program is often overshadowed by the misplaced confidence that simply implementing a particular intervention or set of interventions will prove sufficient to realize quality improvement. The reality is that intervention effectiveness is highly dependent on the context and circumstances within which it is implemented. This includes recognizing cultural factors that may affect patient and provider compliance with clinical guidelines in addition to the organizational and clinical aspects of patient care processes more typically associated with successful quality improvement interventions. This has led CMS to expand the QIO disparity reduction efforts to include components dealing with cultural competency in the 8th SoW.

In the first QIO summary report,⁵ we characterized QIO efforts in the 6th SoW based on the target of the intervention. Interventions were described as targeting barriers arising from either healthcare system improvement opportunities or socio-cultural issues. Based on the analysis of 6th SoW QIO efforts to reduce disparities, successful interventions tended to have one or more of the following characteristics:

- Community partnerships and advisory boards
- Evidence-based approach
- Grassroots outreach
- Multidimensional (having several components)
- Provider centered
- Small group settings
- Socio-cultural relevance
- Leadership supported

QIO efforts in the 7th SoW built upon the lessons learned from the 6th SoW. One key finding was that the relationship between the intervention target (provider or community), clinical topic, and the underserved population was also a factor that influenced the success of QIO quality improvement initiatives. Additionally, initiatives focusing on provider-driven indicators (HbA1c, appropriate antibiotics) tended to yield greater disparity reductions than initiatives centering on community-based clinical topics (mammography, immunizations). Individual QIO interventions in the 7th SoW are summarized in Appendix B.

Physician and Healthcare System Interventions

Inpatient Projects Among Rural Providers

Few disparities projects in the 6th SoW focused on inpatient clinical topics. The likely reason is that the inpatient quality measures selected by CMS generally failed to demonstrate substantial racial disparities.⁶ Research has shown that acute care clinical process measures generally reflect activities that promote adherence to clinical guidelines and are typically

evaluated at the hospital level instead of the patient level where race can be a consideration. A recent study conducted by the Dartmouth Medical School demonstrated that racial health disparities primarily occur in a small number of poorly performing hospitals.⁷ The results further support the belief that disparities in process measures reflect provider level system improvement opportunities rather than patient treatment. While inpatient disparities in care are evident for some surgical procedures, these procedures are not part of the CMS quality improvement efforts.^{8,9} For these reasons, most QIOs found little opportunity to explore inpatient projects in the 6th SoW.

By identifying the rural population as an underserved group, CMS has created an opportunity to evaluate inpatient process of care measures in rural hospitals. Disparities usually manifest themselves as differences in quality measures relative to the performance observed in urban hospitals. Unlike disparity reduction efforts focused on race or ethnicity, working with rural hospitals to incorporate adoption of clinical guidelines has been found to be a successful disparity reduction strategy. Of the 19 QIOs targeting rural providers, 13 addressed one of the inpatient quality indicators. QIOs that focused on reducing disparities in the rural inpatient setting represented 36.5% of the underserved quality initiatives.

In general, QIOs utilize a quality improvement (QI) framework to promote measurable reductions in healthcare disparities. Many state programs have adopted the Institute for Healthcare Improvement (IHI) collaborative model, which includes QI teams reviewing current care processes to identify ways to improve. Based on the results of a root cause analysis, small-scale rapid cycle tests of change are initiated to find and test new ideas for improvement. A common framework used is the Plan Do Study Act (PDSA) methodology. QIOs working to reduce disparities in the quality of care provided to Medicare beneficiaries receiving care from rural providers used the QI framework to facilitate the development of intervention strategies.

Useful strategies developed throughout the 7th SoW included identifying high performing rural hospitals as models for staff recruitment and retention, and as champions for the development of system changes to improve and maintain standards of care. Some interventions focused on targeting barriers to providing and receiving needed services such as Left Ventricular Function (LVF) Assessment for patients with heart failure. Other interventions targeted hospital administrative leadership in an effort to make a business case for quality by demonstrating the positive financial impact of quality improvement as well as the clinical benefits to care. Additionally, hospital specific comparative data reports were created and shared with participating providers. Other tools, such as pre-printed fliers, posters, chart reminders, pre-printed orders, nurse and pharmacy in-service training were also utilized effectively. Some QIOs offered Continuing Education Units (CEUs) for nurses and Continuing Medical Education (CMEs) credits to promote their evidence based training efforts.

Most QIOs discovered that many interventions, while ultimately successful, required a high degree of support and buy-in not only from the clinical staff, but from administrative leaders as well. In the rural setting, physical isolation was found to be one of the greatest barriers to evidence-based practice because there is less availability to share resources and information. To overcome this challenge, several QIOs provided speakers to address medical staffs at their

regular meetings at rural healthcare facilities. QIOs also established personal relationships with key staff members and worked within the framework of each hospital's organizational structure to address their specific barriers to quality improvement efforts.

Diabetes Projects and the Racially/Ethnically Underserved

The 6th SoW demonstrated that QIO intervention strategies that focused on physician office interventions alone or in concert with community-based efforts were more effective in reducing disparities than community-based efforts used exclusively. Therefore, the diabetes indicators (HbA1c, lipid screening or eye exam) represented an opportunity to focus on measures that are almost exclusively provider driven. The diabetes measures are defined by patient visits to a primary care provider for diabetes related services. This guarantees that every patient evaluated against the diabetes quality indicators will have had at least one "screening opportunity" to allow the clinician to provide the services in question.

Of the 23 QIO state projects selecting the clinical topic of diabetes as a focus for their underserved population, 20 identified their underserved population using a race/ethnicity criterion. For the 7th SoW, diabetes projects represented 44% of all underserved projects. Many QIOs focused their disparities reduction efforts on the clinical topic of diabetes counting on their ability to improve indicator rates through directed physician activities such as academic detailing and provider education. Most adopted a strategy that mimicked their statewide outpatient activities, but with a focus on providers who care for a disproportionate share of the underserved population targeted. Some QIOs found it helpful to coordinate their quality improvement activities with their State Medicaid program. Many offered CME/CEU credits to providers participating in their quality improvement efforts. Others created information technology solutions such as support with diabetes patient registry software.

Typically, physician-based initiatives were coupled with community outreach activities such as targeted mailings, health fairs, and educational sessions at local community centers. Other key stakeholders included community health centers, beauty shops, and sponsors of provider supported health fairs. Many QIOs, in conjunction with diabetes educators and nutritionists, created grassroots support groups to expand their diabetes message by promoting exercise, fitness, and healthy eating programs. Adoption of multi-faceted intervention strategies reflects QIOs' response to lessons learned from 6th SoW quality improvement initiatives that found the use of multiple interventions resulted in improved indicator performance.

Community Interventions

Breast Cancer /Adult Immunizations and the Racially/Ethnically Underserved

Of the 14 state projects focused on reducing disparities in mammography or immunization rates, 11 focused their efforts on a racial or ethnic underserved population. Breast cancer and immunization initiatives represent 27% of the disparities projects conducted in the 7th SoW.

Unlike the acute care and diabetes quality initiatives, beneficiary eligibility for mammography and immunization services does not depend on clinical diagnosis. All beneficiaries who meet the demographic and Medicare participation criteria described in each indicator's denominator specification are included in the target population. Consequently, there are far more beneficiaries eligible for mammography and adult immunization services than for the other clinical topics. In fact, the majority of the population may not have a healthcare encounter that would define an opportunity for physician intervention. Appropriate breast cancer screening requires a primary care visit and, generally, follow-up referral. Immunizations can be subject to patient preference more so than physician referral. Given these limitations, QIOs typically implement multiple interventions such as engaging community stakeholders in education and outreach efforts, developing partnerships with service providers and facilities, and soliciting physician office participation in quality improvement activities. QIOs that focused on breast cancer and immunization relied even more heavily on the lessons learned in the 6th SoW which demonstrated the need to have multi-component interventions to effect positive outcomes.

Nearly all QIOs established or maintained community partnerships and/or community advisory boards to reach out directly to the underserved population. Places of worship were found to be particularly effective intervention sites. Media campaigns were developed to promote the importance of disease prevention. Extensive focus group testing and social marketing research was used to formulate key messages that would connect with beneficiaries and motivate them to seek mammography and/or immunization services. Campaign themes often emphasized preventive care for the sake of family and loved ones and engaged recognized leaders in the community to promote the benefits of preventive services. These campaigns made use of a wide range of media outlets, such as print, radio, and television, each with some degree of success.

Partnerships

Partnerships are a key factor in the success of the QIO disparities projects. It has been the contributions and commitment made by community stakeholders that enable QIOs to implement more cost-effective interventions by providing familiar and trusted avenues for patients to receive information regarding mammography and immunization services. Organizations such as the American Diabetes Association and the American Heart Association have also been important resources in support of many local QIO initiatives. These organizations, along with assistance from individual community activists and local healthcare leaders, have enhanced QIO efforts to improve the mammography and immunization rates for underserved populations.

With disparities reduction becoming a formal part of QIO quality improvement responsibilities, most QIOs realized that, to be successful, they had to quickly develop a working knowledge of the underserved populations in their state and minimize the potential for duplicating work already being done by other organizations. This early realization facilitated the development of partnerships with community groups and faith-based organizations that had already forged relationships with members of the underserved populations and gained valuable expertise in providing services to this segment of their community. When the definition of the underserved expanded to include beneficiaries living in rural communities, many QIOs began establishing relationships with the healthcare providers in these communities and pursued partnerships with institutions such as community health centers and rural hospitals to help address the needs of this underserved population. QIOs also partnered with local chapters of various membership and advocacy groups such as the National Medical Association (NMA), the National Hispanic Medical Association (NHMA), the National Association for the Advancement of Colored People (NAACP) and AARP. These local alliances established a link with providers who understood the needs of the various underserved groups and often provided the majority of services to these populations.

QIOs continue to be innovative in recruiting and soliciting organizations to commit and share resources to help improve the quality of healthcare delivered to underserved populations. Many government and public institutions have played key roles as partners in QIO disparity reduction efforts. For example, QIOs working on improving diabetes care have found willing partners in many local and state Diabetes Prevention and Control Programs. Faith-based institutions have also been an important resource in facilitating education and outreach to underserved racial and ethnic groups who worship in their congregations. Similarly, many colleges and universities have research programs and health initiatives that encompass similar goals as those of the QIO and often overlap with QIO quality improvement activities. Partnerships with academic institutions afford the added benefit of trained personnel interested in assisting QIOs with their projects in return for the opportunity to pursue publication of project results and successes.

Quality improvement initiatives that include local opinion leaders seem to benefit from their participation. Well-respected physician champions and administrators who strongly believe in the quality improvement effort and were willing to promote it among his or her peers were used in many of the QIO inpatient projects. For services typically provided in the outpatient

setting, community leaders, church pastors, local congressional representatives and local celebrities such as the local news broadcasters were also found to be effective champions for QIO sponsored projects.

Results

The 7th SoW QIO evaluation was based on a retrospective study of performance using a cross-section of Medicare beneficiaries sampled pre-/post-intervention starting in April 1999 (baseline) and concluding in September 2004 (remeasurement). QIOs were evaluated against three major criteria: (1) the absolute and relative improvement in the selected process of care measures within the targeted underserved population, (2) the degree of improvement in the process measure for the underserved population relative to the improvement in the non-underserved population (i.e. reduction in disparity) and (3) the improvement in the state's targeted underserved population as compared to the aggregate of the same underserved population that was not targeted for the same clinical topic in other states (i.e. a national control group).

1. Absolute and relative improvement in the targeted population

Absolute improvement is defined as the difference in indicator rates from baseline to remeasurement. Relative improvement is defined as the absolute improvement divided by the difference between 100% compliance and the observed baseline performance. Relative improvement is also referred to as a reduction in failure rate, or reduction in error rate. The definition of relative improvement is the same as that used to evaluate earlier QIO efforts.⁸ The relative improvement used here avoids the often-misleading results obtained by calculating a simple proportion. For example, dividing the absolute improvement by the baseline rate alone will exaggerate small changes for poorly performing states, suggesting substantial improvements in states that continue to have low indicator rates. Similarly, states already performing well will have seemingly low rates of improvement without consideration for the relatively high baseline rate characteristic of high performing states. The baseline rate is the value of the clinical measure in the underserved population before the intervention occurred. The remeasurement rate is taken from the most recent data available at the end of a three-year SoW for the same clinical measure in the same underserved population.

The calculation for absolute improvement is:

Absolute improvement = *Remeasurement rate for the Targeted Group – Baseline rate for the Targeted Group.*

The calculation for relative improvement is:

Relative improvement = *(Absolute improvement) / (100% - Baseline rate for the Targeted Group).*

For both measures, a negative resulting value reflects a decline in measured performance rates from baseline to remeasurement. For the 52 states and territories participating in the underserved project, 49 (94.2%) demonstrated a positive absolute improvement in the clinical measures for their respective targeted underserved populations. Only three states (5.8%) failed to show improvement. The median rate of absolute improvement for all 52 states and territories was 9.7%; the range for improvement rates was –1.0% to 31.1%. The median rate of

relative improvement calculated across all states and territories was a remarkable 26.0% with a range from -2.3% to 57.7%.

2. *Reduction in disparity*

The reduction in disparity for the selected clinical measures for each of the targeted populations is defined as the difference between the rates of improvement of the targeted underserved group from baseline to remeasurement subtracted from the rate of improvement of the non-underserved group from baseline to remeasurement.

The calculation for the reduction in disparity is:

Reduction in disparity = *(Remeasurement rate for the Targeted Group - Baseline rate for the Targeted Group) - (Remeasurement rate for the Reference Group - Baseline rate for the Reference Group)*.

The reference group is defined as the state's white, non-dually enrolled population (outpatient), white (inpatient) or, for rural projects, the state's urban county rate. A negative result indicates an increase in or worsening of the disparity between the underserved and non-underserved populations. A positive result indicates a reduction in disparity. Forty-six of 52 states and territories (88.5%) demonstrated a reduction in disparity, while 6 of 52 (11.5%) did not. Overall the median reduction in disparity was 4.8%, with reductions ranging from -18.3% to 26.0%.

3. *Intervention effectiveness (National Control Group Comparison)*

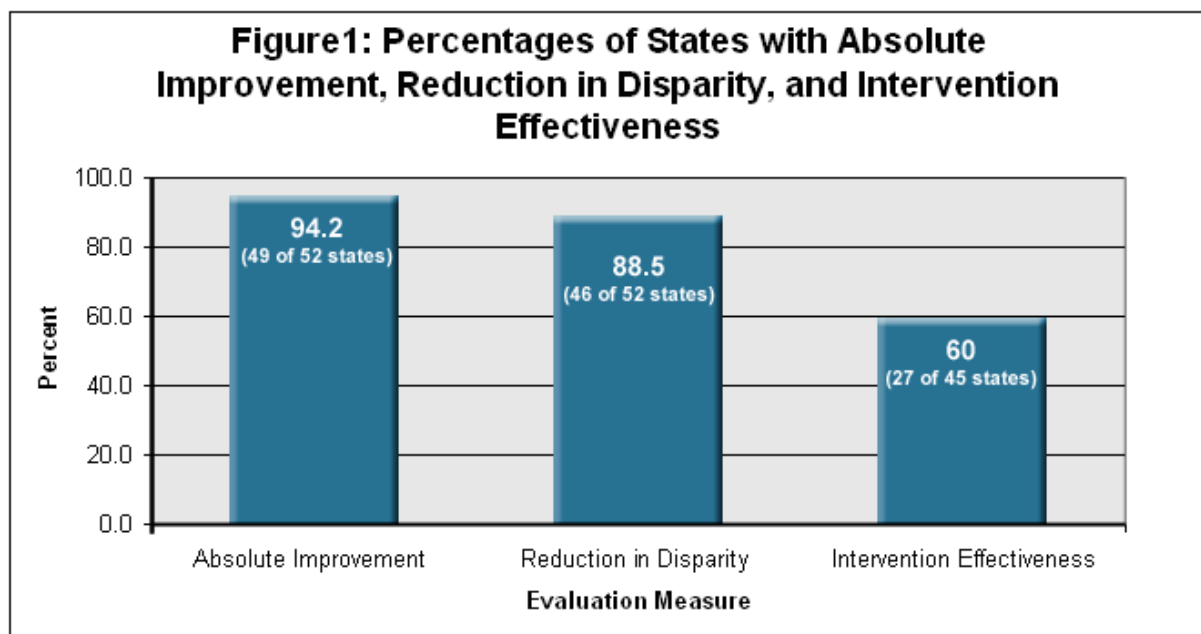
Another way that CMS evaluated the overall impact of QIO projects was through a state-level comparison of the rate of absolute improvement for each clinical topic indicator for each targeted population against that of a national control group. A national control group was established for each clinical topic indicator for each underserved population. Each control group was comprised of beneficiaries from the same underserved population from other states where the QIO did not target the underserved group and clinical topic for its disparities reduction initiative.

The calculation for intervention effectiveness is:

Intervention effectiveness = *(Remeasurement rate for the Targeted Group - Baseline rate for the Targeted Group) - (Remeasurement rate for the National Control Group - Baseline rate for the National Control Group)*

Similar to the reduction in disparity calculation, a negative result for the intervention effectiveness measure indicates that the rate of absolute improvement in the national control group exceeded that of the targeted underserved group. The value of the intervention effectiveness measure indicates the degree to which the state's rate of absolute improvement differed from that of the national control group. Among the 52 states and territories, only 45 were capable of having a defined control group. This was primarily due to the size of the target population relative to the reference group and the consequent difficulty in making an

appropriate comparison. The relatively low aggregate performance on this aspect of the intervention effectiveness measure illustrates the need for, legitimate reference groups. Even among the 45 states and territories, evaluating intervention effectiveness in the aggregate is difficult given the crude methodology utilized to define control groups from other states and the multitude of alternative control groups used across QIOs. Despite these limitations, 27 of 45 (60.0%) states and territories successfully facilitated an absolute improvement in quality indicator rates for their targeted underserved population over and above the national control group. That 60.0% of states and territories were able to facilitate improvement beyond that of the control group is a substantial finding. Overall, the median for the intervention effectiveness measure was 0.9%, with results ranging from -16.1 % to 23.5%. The percentage of states with an improvement in the targeted underserved group’s indicator rates along with the percentage of states achieving an overall reduction disparity and a positive estimate of intervention effectiveness is displayed in Figure 1.



The combination of the absolute/relative improvement and reduction in disparity can tell a great deal about the pattern of outcomes within each state. (1) A positive improvement in the absolute/relative rates and a positive reduction in disparity indicate that not only did the state’s outcome for the targeted population improve, but it improved at a rate greater than that of the non-underserved comparison group in the same state. (2) A negative improvement in the absolute/relative rates but a positive reduction in disparity indicates that while the targeted groups rate worsened, it happened in the context of a much greater decline in the same indicator rate among the non-underserved comparison group in the state. This result is found most often among states targeting mammography, where the rates over the same time period for all populations have declined. (3) Positive improvement in the absolute/relative rates and a negative reduction in disparity indicate that while the underserved group measure improved, in contrast to the non-underserved, the increase was much less dramatic. This outcome has often been characterized as demonstrating the fallacy of the “rising tide” effect, mostly observed in the states targeting the inpatient projects (4 of 6 states and territories). (4) A negative absolute/relative improvement associated with a negative reduction in disparity indicates that

the underserved rate failed to improve and that this decline occurred in the context of either a lesser decline or actual improvement in rates among the non-underserved. None of the 52 states and territories had this pattern.

While interpretations of the intervention effectiveness measure should be done with caution, in combination with the relative/absolute improvement indicator, one can to some degree assess to what extent the QIO interventions had an impact beyond what would be expected based on external factors such as secular trend within the nationwide targeted population. (1) Where the absolute/relative improvement measures and the intervention effectiveness measure are positive, the results indicate that the QIO’s interventions were effective beyond those external, non-QIO intervention effects. (2) Where the absolute/relative improvement measures are negative but the intervention effectiveness measure is positive, the results suggest that the outcomes among the targeted underserved would have been worse had it not been for QIO intervention. (3) Where the improvement measures are positive, but the intervention effectiveness measure is negative, the result would suggest that other factors might have influenced the positive improvement rather than the QIOs direct intervention. (4) Where both the absolute/relative improvement rates and the intervention effectiveness measures are negative, the results suggest that the QIO’s intervention was ineffective rather than the result of negative secular trends. Three states were characterized by this pattern, all focused on mammography.

The baseline and remeasurement indicator rates for each state’s targeted population are displayed in Table 4. Rates for relative improvement, reduction in disparity and intervention effectiveness are also presented. The data is taken from the CMS dashboard measurement system and QIO final reports.

**Table 4:
7th SoW Baseline, Remeasurement, Relative Improvement, Reduction in Disparity, and Intervention Effectiveness Rates**

State	Targeted Population	Clinical Topic	Baseline Rate %	Remeasurement Rate %	Relative Improvement	Reduction in Disparity %	Intervention Effectiveness %
AK	Rural	SIP	29.0	40.9	16.8%	-8.6	1.0
AL	AA	BC	54.3	57.8	7.6%	6.2	0.9
AR	Rural	Diab	60.9	73.2	31.5%	5.5	5.7
AZ	DE	Diab	58.4	62.4	9.5%	-0.9	-4.8
CA	Hisp	Diab	62.7	77.5	39.8%	9.2	N/A*****
CO	Hisp	BC	51.0	50.6	-0.9%	1.8	-2.3
CT	AA	BC	50.8	56.2	11.0%	2.1	2.9
DC	AA	HF	73.6	80.7	27.2%	0.3	-1.8
DE	AA	Diab	66.3	71.4	15.3%	5.6	3.9
FL*	AA	Diab	71.1	80.8	33.4%	5.3	0.0
GA	Rural	Diab	69.2	79.0	32.0%	2.3	3.2
HI	PI	Diab	22.4	35.8	17.3%	8.1	N/A
IA	Rural	Pne	15.2	40.9	30.3%	-8.2	0.6
ID	Rural	Pne	44.7	75.8	56.3%	26.0	23.5
IL	Rural	HF	54.2	72.4	39.8%	5.6	7.3

State	Targeted Population	Clinical Topic	Baseline Rate %	Remeasurement Rate %	Relative Improvement	Reduction in Disparity %	Intervention Effectiveness %
IN	AA	Diab	65.3	71.2	17.1%	1.1	-3.7
KS	Rural	BC	56.8	55.8	-2.3%	1.4	-0.4
KY**	Rural	BC	52.6	52.0	-1.2%	0.5	0.0
LA	AA	Diab	58.8	61.7	7.0%	3.7	1.7
MA	AA	Diab	65.7	83.3	51.3%	4.8	2.1
MD	AA	Pne	10.6	13.6	3.4%	-18.3	-16.1
ME	Rural	HF	64.9	81.0	45.8%	7.6	5.2
MI	AA	Diab	69.2	86.1	54.9%	8.8	1.4
MN	AA	Diab	52.4	66.5	29.7%	4.6	-1.4
MO	AA	Immu	22.6	28.6	7.8%	0.3	N/A
MS	AA	BC	45.0	49.1	7.6%	5.0	1.6
MT	Rural	Pne	6.9	32.4	27.4%	2.2	0.4
NC	AA	Diab	67.7	80.4	39.2%	5.6	-2.9
ND	Rural	HF	32.5	59.7	40.3%	18.9	16.3
NE	Rural	Pne	56.6	78.3	50.1%	9.4	2.7
NH	Rural	HF	81.4	83.1	9.3%	-4.5	-9.2
NJ	AA	Diab	57.1	68.2	25.8%	1.5	1.4
NM***	Hisp	Immu	54.1	56.9	6.2%	6.6	N/A
NV****	AI	Immu	12.8	12.8	0.0%	4.7	N/A
NY	AA	Diab	63.8	80.5	46.1%	11.9	1.2
OH	AA	Diab	65.4	80.3	43.1%	6.0	-0.6
OK	Rural	HF	34.5	45.1	16.2%	3.9	-0.3
OR	Hisp	Diab	69.0	81.6	40.6%	5.0	0.4
PA	AA	Diab	69.5	77.2	25.3%	3.4	-1.9
PR	Rural	Diab	48.2	78.1	57.7%	12.1	19.4
RI	DE	Diab	74.8	89.3	57.5%	6.6	1.0
SC	AA	BC	50.5	54.5	8.1%	5.6	1.5
SD	AI	Diab	33.5	36.3	4.1%	-1.6	-3.0
TN	DE	BC	47.0	49.6	4.9%	1.8	2.7
TX	AA	Diab	71.1	84.1	44.9%	5.9	-2.5
UT	AI	Immu	15.0	17.2	2.7%	0.6	N/A
VA	AA	BC	58.2	59.3	2.6%	3.3	-1.4
VT	Rural	HF	74.3	81.6	28.2%	5.1	-3.7
WA	Rural	AMI	83.7	88.0	26.3%	0.6	-1.3
WI	AA	Diab	57.7	80.5	53.9%	13.0	7.3
WV	Rural	Immu	46.5	46.9	0.8%	4.2	N/A
WY	Rural	Pne	75.9	88.5	52.2%	9.1	11.2

Notes:

Data source: CMS dashboard measurement system and QIO final report

Targeted Population: AA-African American; AI-American Indian/Alaskan Native; Dually-Dually Enrolled; Hisp-Hispanic/Latino; PI-Asian/Pacific Islander; Rural.

Clinical Topic: AMI-Acute Myocardial Infarction; BC-Breast Cancer; Diab-Diabetes; HF-Heart Failure; Immu-Immunization; Pne-Pneumonia; SIP-Surgical Infection Prevention.

Reference Population: Urban for Rural, White Non-Dually for outpatient topic; All Whites for inpatient topic

*FL: Intervention effectiveness rate -0.0136957988493975

**KY: Intervention effectiveness rate 0.0116862340713837

***NM: Indicator rates were weighted by the Medicare advantage penetration rates, applied White Non-Hispanic as reference group

****NV: Relative improvement 0.0478378931417586%

*****N/A: could not apply the National Control Group comparison

Two additional aspects of QIO disparities reduction efforts are of interest but were not part of the formal evaluation of QIO work. The first entails a comparison of the underserved population and the clinical topic targeted for improvement. The second is a comparison of QIO performance in the 6th SoW versus that in the 7th SoW.

Underserved Population and Clinical Comparison

A matrix of underserved populations by clinical topic and the median absolute improvement in disparity achieved within each combination is presented in Table 5a. A similar matrix for relative improvement is presented in Table 5b. The median reduction in disparity achieved by underserved population and clinical topic combination is presented in Table 5c. For every underserved population the median measured performance rates were improved. With respect to the clinical indicators, both the median absolute and relative improvement results were positive. The median reduction in disparity results was negative only for SIP and pneumonia.

The African American population was targeted by QIOs in 22 of 52 states and territories (42.3%). QIOs were able to demonstrate a median absolute improvement of 7.5%, a median relative improvement of 25.6%, and a median reduction in disparity of 4.9% in this population across all clinical measures.

Despite the nature of QIO efforts to reduce disparities in rural areas, QIOs demonstrated success. Among the 19 states and territories targeting rural providers, 16 (84.2%) showed a reduction in the disparity versus their urban counterparts with a median reduction of 4.2%. The absolute improvement in this population was 12.3%, and the relative improvement of 30.3%, the greatest among all populations.

Among the four states and territories targeting Hispanics, the median reduction in disparity was 5.8%, in association with an absolute improvement of 7.7% and relative improvement of 23.0%. Three targeted American Indians, three targeted beneficiaries dually enrolled, and one targeted Asians/Pacific Islanders. For each group, QIOs achieved a median reduction in disparity ranging from 0.6% (American Indians) to 8.1% (Asian/Pacific Islanders), and a median absolute improvement ranging from 2.3% (American Indians) to 13.4% (Asian/Pacific Islanders).

Among the three states and territories that targeted American Indian/Alaskan Natives, the median absolute improvement was 2.3% and the median reduction in disparity was 0.6%. The rates for the two states focused on the American Indian population likely under-represent actual improvement as primary healthcare delivery to American Indians, which is often provided through Indian Health Services (IHS). Despite efforts on the part of CMS and the QIOs, the inability to obtain IHS data to augment Medicare fee-for-service screening measures data, likely negatively impacted the indicator rate calculations.

Diabetes was the most frequently selected clinical topic by QIOs for their disparity reduction projects and the topic for which they achieved the greatest success. QIOs realized a median

disparity reduction across all populations of 5.5%, a median absolute improvement of 12.6%, and a median relative improvement of 33.4%. Among fourteen QIOs targeting African Americans with diabetes, a median reduction in disparity of 5.5% was achieved, and a 12.8% median absolute improvement and a 36.3% median relative improvement.

The QIO that focused on SIP was not able to demonstrate a reduction in disparity despite an 11.9% absolute increase in the targeted indicator rate. For the six states and territories targeting Pneumonia, four demonstrated a reduction in disparity and achieved the greatest median absolute improvement of 23.7% and the greatest median relative improvement of 40.2%. The fact that five of six states and territories achieved a positive result of intervention effectiveness suggests that it was QIO’s intervention effects that contributed to the improvement in the targeted group. In the two states with a negative reduction in disparity, both achieved a positive improvement in their targeted population performance rate. This finding suggests difficulties associated with the topic indicator selection or more likely, the inability to reduce disparities against the undercurrent of improved healthcare outcomes for all providers statewide.

**Table 5a:
Median Absolute Improvement Rate by Targeted Population and Clinical Topic**

Clinical Topic	Targeted Population													
	African American		American Indian		Dually Enrolled		Hispanic		Asian/Pacific Islander		Rural		Overall (c)	
	State (a)	Median (b) %	State	Median %	State	Median %	State	Median %	State	Median %	State	Median %	State	Median %
Breast Cancer	5	4.0			1	2.6	1	-0.5			2	-0.8	9	2.6
Diabetes	14	12.8	1	2.8	2	9.2	2	13.7	1	13.4	3	12.3	23	12.6
Heart Failure	1	7.2									6	13.3	7	10.6
Immunization	1	6.0	2	1.2			1	2.9			1	0.4	5	2.3
SIP											1	11.9	1	11.9
AMI											1	4.3	1	4.3
Pneumonia	1	3.0									5	25.5	6	23.7
Overall (d)	22	7.5	3	2.3	3	4.0	4	7.7	1	13.4	19	12.3	52	9.7

- a. Number of states selecting the specific population and clinical topic
- b. Median reduction in disparity for the states selecting the specific population and clinical topic
- c. Number of states selecting a specific clinical topic and median reduction in disparity among those states
- d. Number of states selecting a specific population and median reduction in disparity among those states

**Table 5b:
Median Relative Improvement Rate by Targeted Population and Clinical Topic**

Clinical Topic	Targeted Population													
	African American		American Indian		Dually Enrolled		Hispanic		Asian/Pacific Islander		Rural		Overall (c)	
	State (a)	Median (b) %	State	Median %	State	Median %	State	Median %	State	Median %	State	Median %	State	Median %
Breast Cancer	5	7.6%			1	4.9%	1	-0.9%			2	-1.7%	9	4.9%
Diabetes	14	36.3%	1	4.1%	2	33.5%	2	40.2%	1	17.3%	3	32.0%	23	33.4%
Heart Failure	1	27.2%									6	34.0%	7	28.2%
Immunization	1	7.8%	2	1.4%			1	6.2%			1	0.8%	5	2.7%
SIP											1	16.8%	1	16.8%
AMI											1	26.3%	1	26.3%
Pneumonia	1	3.4%									5	50.1%	6	40.2%
Overall (d)	22	25.6%	3	2.7%	3	9.5%	4	23.0%	1	17.3%	19	30.3%	52	26.0%

- a. Number of states selecting the specific population and clinical topic
- b. Median reduction in disparity for the states selecting the specific population and clinical topic
- c. Number of states selecting a specific clinical topic and median reduction in disparity among those states
- d. Number of states selecting a specific population and median reduction in disparity among those states

**Table 5c:
Median Reduction in Disparity Rate by Targeted Population and Clinical Topic**

Clinical Topic	Targeted Population													
	African American		American Indian		Dually Enrolled		Hispanic		Asian/Pacific Islander		Rural		Overall (c)	
	State (a)	Median (b) %	State	Median %	State	Median %	State	Median %	State	Median %	State	Median %	State	Median %
Breast Cancer	5	5.0			1	1.8	1	1.8			2	1.0	9	2.1
Diabetes	14	5.5	1	-1.6	2	2.8	2	7.1	1	8.1	3	5.5	23	5.5
Heart Failure	1	0.3									6	5.3	7	5.1
Immunization	1	0.3	2	2.7			1	6.6			1	4.2	5	4.2
SIP											1	-8.6	1	-8.6
AMI											1	0.6	1	0.6
Pneumonia	1	-18.3									5	9.1	6	5.7
Overall (d)	22	4.9	3	0.6	3	1.8	4	5.8	1	8.1	19	4.2	52	4.8

- a. Number of states selecting the specific population and clinical topic
- b. Median reduction in disparity for the states selecting the specific population and clinical topic
- c. Number of states selecting a specific clinical topic and median reduction in disparity among those states
- d. Number of states selecting a specific population and median reduction in disparity among those states

QIO Performance in the 6th versus 7th SoW

To highlight changes over time, the absolute improvement and reduction in disparity achieved in the 7th SoW are contrasted against changes in similar measures obtained in the 6th SoW. Fifteen of 52 states and territories continued their 6th SoW efforts in the 7th SoW (i.e., same population, same clinical topic, and same quality indicator). Thirty-seven (37) of 52 states and

territories changed to a different target population in 7th SoW. The absolute improvement and reduction in disparities by the underserved group and clinical topic for both the 6th and 7th SoWs are presented in Table 6. The 6th SoW data applied here are self-reported sub-state data from those areas targeted for intervention. The 7th SoW data were derived from CMS provided sub-state targeted area data.

QIOs had more success in reducing disparities across all topics and underserved population in the 7th SoW than they did in the 6th SoW. Eighty eight percent of states and territories (46 of 52) achieved a reduction in disparities rates in the 7th SoW as compared to 62.0% (31 of 50) in the 6th SoW (Note: Hawaii was excluded by CMS from the requirements of the reducing disparity task due to the population diversity in the state; Pennsylvania did not participate in the project due to the changes of leadership and staff in their organization). The median rate of reduction in the 7th SoW was 4.8% compared to a median reduction of 1.4% realized in the 6th SoW. Comparing state level performance from the 6th to 7th SoW, 58% (29 of 50) of states and territories had a calculated disparity reduction that was higher in the 7th SoW than was achieved in the 6th SoW.

Of the 15 QIO states and territories that continued work with their 6th SoW disparity reduction initiative, working on the same clinical topic within the same underserved population, 14 (93.3 %) achieved a reduction in disparity in the 7th SoW. This contrasts with the performance of these states in their 6th SoW activities where only 13 of the 15 (86.7%) reduced disparities in the target measures for the underserved population. Eight of 15 states and territories had a calculated disparity reduction in the 7th SoW that exceeded the calculated reduction in the 6th SoW. Of the remaining 37 states and territories that worked on different clinical topics and/or underserved populations, 32 (86.5%) reduced disparities in the 7th SoW compared to 51.4% (18 of 35 states and territories) in 6th SoW. The median rate of reduction achieved in the 7th SoW was 5.0% as compared to a median rate of 0.6% in the 6th SoW. Comparing 7th SoW performance against 6th SoW results shows that 21 of the 35 states and territories had a calculated disparity reduction that was higher in the 7th SoW than was achieved in the 6th SoW. Individual state results of absolute improvement and reduction in disparity comparison for both the 6th and 7th SoW are presented in Appendix C.

**Table 6:
Comparison in States with Same/Different Project in 6th SoW Versus 7th SoW**

6 th SoW		7 th SoW		Comparison (c)		
	Absolute Improvement	Reduction in Disparity	Absolute Improvement	Reduction in Disparity	Absolute Improvement	Reduction in Disparity
States with Same Project						
Median (%)	12.1	3.1	5.9	3.7	-5.0	0.3
Number of States (a)	15	15	15	15	15	15
Percentage of states with positive change (b)	86.7%	86.7%	93.3%	93.3%	20.0%	53.3%
	Absolute Improvement	Reduction in Disparity	Absolute Improvement	Reduction in Disparity	Absolute Improvement	Reduction in Disparity
States with Different Project						
Median (%)	4.5	0.6	11.9	5.0	4.8	3.2
Number of States	36	35	37	37	36	35
Percentage of states with positive change	75.0%	51.4%	94.6%	86.5%	66.7%	60.0%
All States						
Median (%)	5.4	1.4	9.7	4.8	0.9	2.3
Number of States	51	50	52	52	51	50
Percentage of states with positive change	78.4%	62.0%	94.2%	88.5%	52.9%	58.0%

Data source: 6th SoW : Sub-state preliminary data; 7th SoW: CMS dashboard measurement system and QIO final report.

6th SoW: PA did not participate the project; HI did not apply the reduction in disparity measure.

a. Number of states enrolled in a specific project.

b. Percentage of states with the absolute improvement /reduction in disparity rate equal or greater than zero.

c. Difference in absolute improvement and reduction in disparity between 7th and 6th SoWs. The comparison percentage refers to the percentages of states with a calculated absolute improvement/reduction in disparity between 7th and 6th SoWs.

Conclusions

QIOs across the country worked with healthcare providers and community partners to reduce healthcare disparities within several underserved populations for a variety of clinical topics. This report presents highlights of QIO activities and successes achieved in the 7th SoW. Though this work was a continuation of efforts from prior CMS statement of work cycles, many QIOs re-focused their efforts to address new target populations, new clinical topic areas, or both. Most of these changes were the result of the addition of new areas of study by CMS, specifically, the identification of rural communities as a new underserved population and surgical infection prevention as a new clinical topic.

QIO efforts to reduce healthcare disparities continue to demonstrate positive results. Interventions promoted by QIOs included provider education, community outreach, and healthcare facility-level process improvement. Many intervention efforts focused on provider education related to healthcare disparities. These education initiatives emphasized the need to adopt a more culturally sensitive approach to providing healthcare services and promoted the importance of addressing patient non-compliance as a quality improvement opportunity, rather than as a rationale for observed disparities.

Community outreach through partnerships with local, regional and statewide entities continues to evolve to connect with Medicare beneficiaries using trusted sources and existing programs to better leverage limited resources. Faith-based organizations continue to be an excellent vehicle for outreach to members of underserved populations, particularly African Americans. In addition, QIOs continue to promote active process improvement across clinical settings. The use of treatment protocols, practice guidelines and provider/patient reminder systems as prompts to provide preventive services remain essential components of the QIO quality improvement toolkit. These interventions are especially effective for healthcare providers in communities with high concentrations of beneficiaries from the underserved populations.

The findings presented in this report demonstrate a significant improvement in the quality of care received by underserved Medicare beneficiaries. However, because QIO efforts to reduce disparities occur in the context of multiple, co-incident quality improvement activities, it is impossible to attribute improvement exclusively to QIO disparities efforts. However, evaluating QIO efforts using both a reference population of non-underserved beneficiaries (the reduction in disparity measure), and a national control group of non-targeted underserved populations (the intervention effectiveness measure) provides a sound argument in favor of QIO success and effectiveness in improving healthcare for members of underserved groups.

While the results discussed here are encouraging, opportunities for healthcare disparity reduction remain. The 7th SoW activities indicate that QIO efforts continue to have a positive impact on the quality of healthcare services received by Medicare beneficiaries who are members of underserved population groups. In keeping with its philosophy of continuous quality improvement, CMS has applied lessons learned from QIO experiences in addressing healthcare disparities in the 6th and 7th SoWs. Given the unique circumstances facing most beneficiaries who are dually enrolled, CMS has dropped this group from its list of underserved

populations. Similarly, the rural population has been removed from the list of the underserved and is now a separate task area for which QIOs are responsible.

CMS has also developed an all-encompassing disparities reduction initiative whereby QIOs work to improve care to all underserved populations. Targeting individual populations for intervention limited the ability to promote successful disparities reduction to a broader audience. Unfortunately the funding of QIO work to address disparities across all underserved populations continues to be challenging.

Recommendations

1. Increase CMS funding in support of QIO disparity efforts. Reducing healthcare disparities requires resources, yet the QIO's quality improvement program budget apportionment represents only 3.4% of total QIO program costs. Changes in QIO approaches to disparity reduction requires significant resources to investigate root causes, identify and implement interventions, and measure effectiveness. Additional funding would not only provide the resources for a more robust evaluation of QIO disparities programs but would also address the expanded need to address all underserved populations within each state.
2. Design a national campaign to address healthcare disparities. The National Quality Forum (NQF) and others have worked for the last several years to define a set of quality indicators that define areas of key clinical importance to the underserved and demonstrate a significant disparity in their measurement. In 1999, Congress mandated that the Agency for Healthcare Research and Quality report annually to the Nation about healthcare disparities. An interagency workgroup developed the Preliminary Measure Set¹ for the National Healthcare Disparities Report. QIO efforts to reduce disparities should focus on one or more of these key indicators as part of an overall national CMS strategy to demonstrate disparities reduction through QIO intervention.
3. Integrate the efforts of various governmental agencies to complement QIO efforts. This follows directly from the second recommendation. Many of the Department of Health and Human Services Agencies support initiatives that target the underserved. These initiatives have focused on interventions to specifically address disparities. Lessons learned from these prior and ongoing efforts should be shared more effectively and tested more widely with the assistance of the national network of QIOs. A national consortium of these departmental agencies could be formed to address this need.
4. Extend QIO efforts to include reducing and eliminating disparities that exist in other healthcare settings such as nursing homes and home health agencies. The initiative should also be broad enough to address disparities that may cut across healthcare settings and compromise continuity of care. This approach would ensure that disparity reduction moves beyond process of care toward a focus on outcomes of care.
5. Expand QIO efforts to address disparities that come to light under the new Medicare prescription drug benefit. Like the fourth recommendation, this recommendation seeks to expand the focus of disparity reduction beyond process measurement assessment and towards outcome of care. Examples of areas where disparities may possibly arise are drug compliance rates, drug utilization rates, and access to prescription drugs.
6. Coordinate and integrate Medicare and Medicaid data to identify and address disparities within the dually enrolled population. Dually enrolled beneficiaries are most at risk for disparities arising from the implementation of the Part D Medicare benefit. This follows from the fifth recommendation. Linking these data is an essential first step in fostering disparity reduction in this population.

7. Implement a consistent measurement program that standardizes the collection of race and ethnicity information. Although there have been some improvements in the accuracy and completeness of racial and ethnic codes in the CMS enrollment database, several recent analyses indicate that the accuracy of the codes is still less than 60 % for Hispanics, Asians, and Native Americans ¹⁰ (Perot and Youdelman, 2001). A long-term strategy for assessing healthcare disparities should focus on a more consistent collection of race and ethnicity information.
8. Keep the Medicare Beneficiary as the focal point of QIO disparities reduction efforts. Community level demographic factors are as important to persistent healthcare disparities as membership in a given underserved population. A one-size-fits-all interventional approach cannot be considered an effective strategy against the larger context of the underlying causes of disparity. QIOs should continue to have the flexibility to address disparities reduction with a thorough knowledge of local factors that may affect the success of an intervention.

References

- ¹ Healthy People. Healthy People 2010 Understanding and Improving Health. A Systematic Approach to Health Improvement. Available at <http://www.healthypeople.gov/>. Accessed January 14, 2006
- ² Snyder C, Anderson G. Do quality improvement organizations improve the quality of hospital care for Medicare beneficiaries? *JAMA*. 2005 Jun 15;293(23):2900-7
- ³ QSource. QIO Efforts to Reduce Disparities: 1999-2002, Final Report of Progress, Findings, and Results of QIO Projects. Presented to CMS 2003
- ⁴ Hebb JH, Fitzgerald D, Fan W. Health care disparities in disadvantaged Medicare beneficiaries: a national project review. *J Health Hum Serv Adm*. 2003 Fall;26(2):153-73
- ⁵ QSource. QIO Efforts to Reduce Disparities: 1999-2002, Final Report of Progress, Findings, and Results of QIO Projects. Presented to CMS 2003
- ⁶ Fitzgerald D. Racial disparities in care of heart failure. *JAMA*. 2003 Sep 10;290(10):1316
- ⁷ Jha AK, Fisher ES, Li Z, et al. Racial Trends in the Use of Major Procedures among the Elderly. *N Engl J Med*. 2005;353:683-91
- ⁸ Jencks SF, Huff ED, Cuerdon T. Change in the Quality of Care Delivered to Medicare Beneficiaries, 1998-1999 to 2000-2001. *JAMA*. 2003;289:305-312
- ⁹ Agency for Healthcare Research and Quality (AHRQ). *National Healthcare Disparities Report, 2004 Proposed Final Measure Set*. Available at: <http://ahrq.gov/qual/nhdr04/premeasures.htm>. Accessed January 08, 2006
- ¹⁰ Perot RT, Youdelman M. Racial Ethnic, and Primary Language Data Collection in the Healthcare System: An Assessment of Federal Policies and Practices. Report submitted to Commonwealth Fund, September 2001. Available at: http://www.cmwf.org/usr_doc/perot_raceethnic_492.pdf. Accessed January 08, 2006



Appendices



**Appendix A:
7th SoW QIO Project Listing**

State	Targeted Population	Clinical Topic	Indicator
Alaska	Rural	Surgical Infection Prevention	Prophylactic Antibiotic Received Within 1 Hour Prior to Surgical Incision
Alabama	African American	Breast Cancer	Biennial Mammography
Arkansas	Rural	Diabetes	Annual HbA1c Testing
Arizona	Dually Enrolled	Diabetes	Annual HbA1c Testing
California	Hispanic	Diabetes	Annual HbA1c Testing
Colorado	Hispanic	Breast Cancer	Biennial Mammography
Connecticut	African American	Breast Cancer	Biennial Mammography
District of Colombia	African American	Heart Failure	LVF Assessment
Delaware	African American	Diabetes	Biennial Retinal Exam by an Eye Professional
Florida	African American	Diabetes	Annual HbA1c Testing
Georgia	Rural	Diabetes	Annual HbA1c Testing
Hawaii	Pacific Islander	Diabetes	Biennial Testing of Lipid Profile
Iowa	Rural	Pneumonia	Pneumococcal Immunization
Idaho	Rural	Pneumonia	Initial Antibiotic Received Within 4 Hours of Hospital Arrival
Illinois	Rural	Heart Failure	LVF Assessment
Indiana	African American	Diabetes	Annual HbA1c Testing
Kansas	Rural	Breast Cancer	Biennial Mammography
Kentucky	Rural	Breast Cancer	Biennial Mammography
Louisiana	African American	Diabetes	Biennial Retinal Exam by an Eye Professional
Massachusetts	African American	Diabetes	Biennial Testing of Lipid Profile
Maryland	African American	Pneumonia	Pneumococcal Immunization
Maine	Rural	Heart Failure	LVF Assessment
Michigan	African American	Diabetes	Biennial Testing of Lipid Profile
Minnesota	African American	Diabetes	Biennial Testing of Lipid Profile
Missouri	African American	Immunization	Influenza Vaccination
Mississippi	African American	Breast Cancer	Biennial Mammography
Montana	Rural	Pneumonia	Pneumococcal Immunization
North Carolina	African American	Diabetes	Biennial Testing of Lipid Profile
North Dakota	Rural	Heart Failure	LVF Assessment

State	Targeted Population	Clinical Topic	Indicator
Nebraska	Rural	Pneumonia	Initial Antibiotic Selection for Community-Acquired Pneumonia (CAP) in Immuno-competent Patients
New Hampshire	Rural	Heart Failure	LVF Assessment
New Jersey	African American	Diabetes	Annual HbA1c Testing
New Mexico	Hispanic	Immunization	Pneumococcal Vaccination
Nevada	American Indian	Immunization	Influenza and Pneumococcal Vaccination
New York	African American	Diabetes	Biennial Testing of Lipid Profile
Ohio	African American	Diabetes	Biennial Testing of Lipid Profile
Oklahoma	Rural	Heart Failure	LVF Assessment
Oregon	Hispanic	Diabetes	Biennial Testing of Lipid Profile
Pennsylvania	African American	Diabetes	Annual HbA1c Testing
Porto Rico	Rural	Diabetes	Biennial Testing of Lipid Profile
Rhode Island	Dually Enrolled	Diabetes	Biennial Testing of Lipid Profile
South Carolina	African American	Breast Cancer	Biennial Mammography
South Dakota	American Indian	Diabetes	Annual HbA1c Testing
Tennessee	Dually Enrolled	Breast Cancer	Biennial Mammography
Texas	African American	Diabetes	Biennial Testing of Lipid Profile
Utah	American Indian	Immunization	Influenza and Pneumococcal Vaccination
Virginia	African American	Breast Cancer	Biennial Mammography
Vermont	Rural	Heart Failure	LVF Assessment
Washington	Rural	Acute Myocardial Infarction	Aspirin Prescribed at Discharge
Wisconsin	African American	Diabetes	Biennial Testing of Lipid Profile
West Virginia	Rural	Immunization	Influenza Vaccination
Wyoming	Rural	Pneumonia	Blood Culture Performed Before First Antibiotic Received in Hospital

**Appendix B:
QIO Intervention Table**

State	Targeted Population	Clinical Condition	Physician-based Interventions Provider	Beneficiary-based Interventions Beneficiary	Community-based Interventions Community
AK	Rural	Surgical Infection Prevention	Benchmarking Data feedback Educational materials Grand rounds Onsite visits		
AL	African American	Breast Cancer	Onsite visits	Direct mail Educational materials	Media (television) Partnership development
AR	Rural	Diabetes	Academic detailing Computer software support Education credits Tool	Direct mail Educational materials	Health fairs Media (print, radio)
AZ	Dually Enrolled	Diabetes	Collaborative		Partnership development
CA	Hispanic	Diabetes	Collaborative Educational materials Tools	Educational materials Tools	Health fairs Media (print, radio, television)
CO	Hispanic	Breast Cancer		Direct mail Education Promotora	Educational materials Faith-based initiative
CT	African American	Breast Cancer	Direct mail	Direct mail	Coalition development Faith-based initiative
DC	African American	Heart Failure	Data feedback Education Grand rounds Physician champion		
DE	African American	Diabetes			Coalition development Health fairs
FL	African American	Diabetes	Data feedback Educational materials Onsite visits	Direct mail Educational materials Tools	Education Media (print, radio, television)
GA	Rural	Diabetes	Academic detailing Tool	Media (radio, television)	
HI	Pacific Islander	Diabetes	Computer software support Onsite visits		Educational materials Media (radio)
IA	Rural	Pneumonia	Academic detailing Data feedback Educational material Local opinion leader Reminder systems		
ID	Rural	Pneumonia	Academic detailing		Educational materials
IL	Rural	Heart Failure	Education		
IN	African American	Diabetes		Educational materials Tools	Coalition development Faith-based initiative Health fairs Partnership development
KS	Rural	Breast Cancer	Educational materials Onsite visits	Direct mail	Coalition development Media (print)
KY	Rural	Breast Cancer	Collaborative Educational materials	Direct mail	Education Media (print, radio) Partnership development

State	Targeted Population	Clinical Condition	Physician-based Interventions Provider	Beneficiary-based Interventions Beneficiary	Community-based Interventions Community
LA	African American	Diabetes	Education	Direct mail	Faith-based initiative Media (print, television)
MA	African American	Diabetes	Computer software support Data feedback Onsite visits		Coalition development
MD	African American	Pneumonia	Data collection Data feedback Physician champion Tools		
ME	Rural	Heart Failure	Data analysis, collection and feedback Education Onsite visits		
MI	African American	Diabetes	Education Toolkit	Education Educational materials	Coalition development Education Media (radio, television)
MN	African American	Diabetes	Academic detailing Direct mail		Education Local opinion leader Media (print) Speakers bureau
MO	African American	Immunization		Education Media (print, radio, television)	Partnership development
MS	African American	Breast Cancer	Education Onsite visits Tools	Education Media (print, radio)	Education Media (print, radio) Partnership development
MT	Rural	Pneumonia	Computer software support Data collection Education Educational materials Onsite visits		
NC	African American	Diabetes	Direct mail	Direct mail	
ND	Rural	Heart Failure	Academic detailing Education Educational materials		
NE	Rural	Pneumonia	Education Educational materials Onsite visits		
NH	Rural	Heart Failure	Academic detailing Data feedback Onsite visits		
NJ	African American	Diabetes	Direct mail Onsite visits Toolkit	Direct mail	Education
NM	Hispanic	Immunization	Tools		Faith-based initiative Health fairs Media (print, radio) Promotora
NV	American Indian	Immunization	Computer software support Data collection	Education Educational materials Tool	Health fairs
NY	African American	Diabetes	Data feedback Education Onsite visits Toolkit	Direct mail Educational materials	Coalition development Education Health fairs Media (print, radio, television) Partnership development

State	Targeted Population	Clinical Condition			
			Physician-based Interventions Provider	Beneficiary-based Interventions Beneficiary	Community-based Interventions Community
OK	Rural	Heart Failure	Collaborative Computer software support Education Educational materials Onsite visits Physician champion		
OR	Hispanic	Diabetes	Education Educational materials Onsite visits Toolkit		
PA	African American	Diabetes	Direct mail Education Tools	Direct mail Education Media (radio, television)	Coalition development
PR	Rural	Diabetes	Education Toolkit	Education Educational materials	Health fairs
RI	Dually Enrolled	Diabetes	Toolkit	Education	
SC	African American	Breast Cancer	Education Educational materials	Direct mail	Media (print, radio, television) Mini-grant project
SD	American Indian	Diabetes	Education Educational materials Onsite visits	Education Educational materials	Collaborative Education Media (print, radio)
TN	Dually Enrolled	Breast Cancer	Direct mail Educational materials Onsite visits Reminder systems	Direct mail Education Educational materials	Educational materials Health fairs
TX	African American	Diabetes	Education	Direct mail Education Educational materials Local opinion leader	
UT	American Indian	Immunization	Computer software support Data collection	Education Educational materials Tool	Health fairs
VA	African American	Breast Cancer	Educational materials Tools	Direct mail	Faith-based initiative Media (print, radio, television) Partnership development
VT	Rural	Heart Failure	Data feedback Education Computer software support		
WA	Rural	Acute Myocardial Infarction	Academic detailing Education Tools and toolkit		
WI	African American	Diabetes	Collaborative Education Educational materials	Direct mail Education Educational materials	Faith-based initiative
WV	Rural	Immunization		Direct mail Media (print, radio, television)	Faith-based initiative Partnership development
WY	Rural	Pneumonia	Data collection Education Onsite visits Partnership development Tools		

**Appendix C:
6th SoW and 7th SoW Absolute Improvement and Reduction in Disparity Comparison**

6th SoW					7th SoW			
State	Targeted Population (a)	Clinical Topic (b)	Absolute Improvement	Reduction in Disparity	Targeted Population	Clinical Topic	Absolute Improvement	Reduction in Disparity
States with Same Project								
AL	AA	BC	4.3	0.6	AA	BC	3.5	6.2
CO	Hisp	BC	8.2	3.8	Hisp	BC	-0.5	1.8
FL	AA	Diab	14.6	3.1	AA	Diab	9.6	5.3
IN	AA	Diab	12.2	3.8	AA	Diab	5.9	1.1
LA	AA	Diab	-0.3	-1.8	AA	Diab	2.9	3.7
MA	AA	Diab	18.5	5.7	AA	Diab	17.6	4.8
MO	AA	Immu	-4.1	-13.4	AA	Immu	6.0	0.3
MS	AA	BC	5.4	1.4	AA	BC	4.2	5.0
NJ	AA	Diab	16.6	5.0	AA	Diab	11.1	1.5
OH	AA	Diab	24.1	1.5	AA	Diab	14.9	6.0
RI	Dually	Diab	26.8	7.2	Dually	Diab	14.5	6.6
SD	AI	Diab	12.1	4.8	AI	Diab	2.8	-1.6
TN	Dually	BC	5.9	1.5	Dually	BC	2.6	1.8
VA	AA	BC	9.3	3.8	AA	BC	1.1	3.3
WI	AA	Diab	15.7	0.9	AA	Diab	22.8	13.0
Median			12.1	3.1			5.9	3.7
States with Different Project								
AK	Dually	BC	3.1	-1.1	Rural	SIP	11.9	-8.6
AR	AA	BC	6.6	1.4	Rural	Diab	12.3	5.5
AZ	Dually	Immu	6.7	-0.1	DE	Diab	4.0	-0.9
CA	AA	Immu	-4.0	-1.1	Hisp	Diab	14.9	9.2
CT	Dually	BC	5.2	2.4	AA	BC	5.4	2.1
DC	Dually	Diab	-8.9	-0.1	AA	HF	7.2	0.3
DE	AA	BC	4.2	1.4	AA	Diab	5.1	5.6
GA*	AA	BC	0.0	4.8	Rural	Diab	9.9	2.3
HI	PI	Diab	59.9	N/A	PI	Diab	13.4	8.1
IA	AA	Diab	10.5	-0.2	Rural	Pne	25.7	-8.2
ID	Dually	Immu	2.6	-0.9	Rural	Pne	31.1	26.0
IL	AA	BC	0.5	-3.6	Rural	HF	18.2	5.6
KS	AA	Diab	8.4	4.7	Rural	BC	-1.0	1.4
KY	AA	Immu	0.9	-1.9	Rural	BC	-0.5	0.5
MD	Dually	Diab	-6.1	1.6	AA	Pne	3.0	-18.3
ME	Dually	BC	3.5	-1.9	Rural	HF	16.1	7.6
MI	AA	BC	2.5	0.8	AA	Diab	16.9	8.8
MN	Dually	BC	3.7	-1.9	AA	Diab	14.1	4.6
MT	Dually	BC	4.8	-1.6	Rural	Pne	25.5	2.2
NC	AA	Diab	15.3	2.1	AA	Diab	12.6	5.6

6th SoW					7th SoW			
State	Targeted Population (a)	Clinical Topic (b)	Absolute Improvement	Reduction in Disparity	Targeted Population	Clinical Topic	Absolute Improvement	Reduction in Disparity
States with Different Project								
ND	Dually	Diab	0.0	-0.5	Rural	HF	27.2	18.9
NE	AA	Diab	9.8	2.9	Rural	Pne	21.8	9.4
NH	Dually	BC	3.6	-2.7	Rural	HF	1.7	-4.5
NM	Hisp	Immu	-1.2	-3.9	Hisp	Immu	2.9	6.6
NV	Hisp	BC	6.8	0.6	AI	Immu	0.04	4.7
NY	AA	Immu	22.1	12.1	AA	Diab	16.7	11.9
OK	AA	Immu	5.5	2.0	Rural	HF	10.6	3.9
OR	Dually	Diab	24.6	14.2	Hisp	Diab	12.6	5.0
PA	N/A	N/A	N/A	N/A	AA	Diab	7.7	3.4
PR	Dually	PNE	72.1	18.7	Rural	Diab	29.8	12.1
SC	AA	AMI	19.8	14.5	AA	BC	4.0	5.6
TX	AA	Immu	4.8	8.7	AA	Diab	13.0	5.9
UT	AI	Immu	-0.2	-2.6	AI	Immu	2.3	0.6
VT	Dually	BC	-0.5	-1.8	Rural	HF	7.2	5.1
WA	Dually	Diab	5.0	3.7	Rural	AMI	4.3	0.6
WV	Dually	Immu	-2.3	-0.7	Rural	Immu	0.4	4.2
WY	Dually	BC	8.1	3.2	Rural	Pne	12.6	9.1
Median			4.5	0.6			11.9	5.0
Overall			5.4	1.4			9.7	4.8

Data source: 6th SoW : Sub-state preliminary data; 7th SoW: CMS dashboard measurement system and QIO final report.

6th SoW: PA did not provide results of the project; HI did not apply the reduction in disparity measure.

a. Targeted Population: AA-African American; AI-American Indian/Alaskan Native; Dually-Dually Enrolled; Hisp.-Hispanic/Latino; PI-Asian/Pacific Islander; Rural.

b. Clinical Topic: AMI-Acute Myocardial Infarction; BC-Breast Cancer; Diab-Diabetes; HF-Heart Failure; Immu-Immunization; Pne - Pneumonia; SIP-Surgical Infection Prevention.



QIO Individual Project Summary Reports





Alaska

Quality Improvement Organization:	Qualis Health
Target Population:	Rural
Clinical Topic:	Surgical Infection Prevention
Indicator:	Antibiotics w/in 1 hr before incision

Project Objectives:

To decrease the disparity between patients who receive antibiotics within one hour or two hours for vancomycin prior to surgical incision in urban versus rural hospitals.

Background:

In rural hospitals in Alaska there is a significant need to improve preoperative administration of antibiotics. There was a disparity of 29.6 percent between urban and rural hospitals in the timing and administration of antibiotics. This disparity applies to prophylactic antibiotics received within one hour prior to surgical incision.

Study Design:

An initial assessment of the rural hospitals was completed to determine reasons of this disparity. The analysis of this assessment was used to develop the interventions. The intervention group identified was defined as Medicare patients having applicable surgeries in rural hospitals that did not implement a Surgical Infection Prevention antibiotic administration time project. The reference group was Alaska's three urban hospitals.

Interventions:

Qualis Health conducted educational activities, benchmarking, and worked with experts in the field. In researching the strategies for developing interventions, improvement of education was identified as a key element. Remoteness of many of the rural hospitals and small staff make travel for education costly and difficult. Qualis Health shared Clinical Data Abstraction Center (CDAC) data and run chart tools with the rural hospitals. Qualis Health distributed evidence based literature and tools to support the work of the Infection Control Practitioner located within the hospital setting facility.

Qualis Health worked with the Oklahoma Quality Improvement Organization and shared successful strategies on how to recruit and maintain key staff, and developed system changes to standardize the administration of prophylactic antibiotics. Another strategic intervention was to work closely with the Infection Control Practitioners in the rural hospitals who also conducted internal data collection and reporting to multiple hospital committees.

Qualis Health worked with a nationally known physician to conduct on-site Grand Round tours of four of the six rural hospitals. The Infection Control Practitioner worked with the hospital medical staff secretary to coordinate the interactive presentations to medical/surgical staff during existing grand round meetings.

Lessons Learned:

- Be flexible and have a plan B. Issues such as transportation and scheduling conflicts arose beyond Qualis Health’s control. Plans had to be adjusted accordingly.

Results:

The rate for the target population showed an absolute improvement of 11.9 percent. There was no reduction in disparity.

Table 1. Results of Targeted intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	29.0	40.9	11.9
Reference Population	58.6	79.1	20.5
Disparity	29.6	38.2	
Reduction in Disparity			-8.6

Contact Information:
Telephone: 907.562.2252
Fax: 907.562.5659
721 Sesame Street,
Suite 1A
Anchorage, AK 99503



Alabama

Quality Improvement Organization:	Alabama Quality Assurance Foundation (AQAF)
Target Population:	African American
Clinical Topic:	Breast Cancer
Indicator:	Mammography

Project Objectives:

To reduce the mammography utilization disparity between African American women and Caucasian women in the seven intervention counties selected. The long term objective was to decrease the morbidity and mortality associated with treatment of late-stage breast cancer for Alabama's female African American Medicare beneficiaries by early detection.

Background:

According to many studies, breast cancer is the most frequently diagnosed type of cancer and is the second leading cause of cancer death among women in the United States. According to the Food and Drug Administration, approximately 185,000 women in the United States develop breast cancer each year and 44,000 will die as a result of breast cancer. A disproportionate share of the cancer burden is found among minority populations, particularly African Americans, who represent a significant proportion of the Alabama population.

Study Design:

The design of this project follows a quasi-matched comparison methodology. Seven counties in an area known as the "Black Belt" (an area that spans parts of Alabama characterized by high concentrations of African Americans and some of the most impoverished, underdeveloped areas of the country) and 2 urban counties were designated as the intervention group. Mammography rates in the intervention counties ranged from 39% to 59%. African American women eligible for breast cancer screening in these counties were the intended targets of multiple interventions. In order to examine the effectiveness of QIO interventions, seven comparison counties were selected. They were a close match to the intervention counties in terms of the National Cancer Institute's cluster classification, socio-demographic data, and other factors related to high risk of non-compliance with mammography, with the exception that there was a generally lower concentration of African Americans.

Interventions:

Over the contract period, interventions on individual, community and healthcare provider levels were implemented in the intervention counties. Strategies included: mammography events, targeted postcard mailings, educational material distribution, pilot projects planned with Community Health Advisors in physician offices, as well as in beauty salons, in addition to mass media campaigns. Furthermore, physicians received office visits by QIO staff where they received African American tailored resource manuals to assist in providing culturally appropriate messages to non-compliant beneficiaries. Another strategic initiative involved a partnership with the local university to offer continuing medical education credits in exchange for: reflecting on individual performance rates in the context of benchmarks set by peers, participating in courses concentrating on managing the care of complex adult patients, and using tools associated with higher indicator rates such as office reminder systems.

Lessons Learned:

Mammography rates for Medicare beneficiaries who do not have a medical home was 66% lower than those beneficiaries linked with a primary care provider. These beneficiaries represented a substantial part of the underserved population included in this study. If these beneficiaries are specifically targeted in future efforts, greater improvements in the quality of care may ensue.

- Lower educational and health literacy rates were strongly associated with lower rates of mammography. This critical relationship must be recognized early in any future intervention planning effort.
- Cluster sampling would be a better approach when designating study groups. An increased emphasis on tailoring interventions to reach this particularly at-risk population in order to maximize the potential spread and impact of any health initiative spearheaded by this AQAF is warranted.
- Physician on-site visits and quarterly mailings of breast cancer screening practices were beneficial in increasing physician awareness.

Results:

The rate of Mammography utilization for the target population showed an absolute improvement of 3.5 percent. AQAF reduced the disparity by 6.2 percent.

Table 1. Results of Targeted intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	54.3	57.8	3.5
Reference Population	69.6	66.9	2.7
Disparity	15.2	9.1	
Reduction in Disparity			6.2

Contact Information:

Telephone: 205.970.1600
 Fax: 205.970.1624
 Two Perimeter Park South,
 Suite 200 West
 Birmingham, AL 35243



Arkansas

Quality Improvement Organization:	Arkansas Foundation for Medical Care (AFMC)
Target Population:	Rural
Clinical Topic:	Diabetes
Indicator:	HbA1c

Project Objectives:

To increase HbA1c testing among diabetic Medicare beneficiaries and to reduce the morbidity, complications, and cost associated with diabetes by improving diabetes management through regular HbA1c testing. Additionally, to improve rural physician's education of developing clinical standards for diabetes care as reflected by national consensus groups such as the National Quality Forum (NQF) and the American Diabetes Association (ADA).

Background:

Diabetes is an epidemic in the United States and according to the 2000 Behavioral Risk Factor Surveillance System (BRFSS) data; approximately 157,000 Arkansans have diagnosed diabetes. Better understanding of the natural course of diabetes in relation to chronic glucose control coupled with the emergence of newer agents for blood sugar control has the potential to positively impact overall diabetes management. Ability to intervene in the chronic course of diabetes necessitates better monitoring of the condition and more judicious use of therapeutic interventions to improve the long-term outcomes of patients with this disease. At baseline, Arkansas had one of the lowest rates of HbA1c usage in the country at 69.3 percent, ranking at 49th. Rural Arkansas, in particular, has substantial under use of this important technology. Portions of the state with some of the highest rates of diabetes are not using modern technology to limit the potential impact of this highly morbid condition. This could contribute to healthcare costs and premature death in those communities affected. Increased use of diagnostic testing, particularly HbA1c, that is outlined in this project will lead to a greater awareness of the need for tighter glucose control critical to better long-term outcomes.

Study Design:

There was a pre/post design study with interim monitoring throughout the project. Control counties within the state were selected based on similar population characteristics as the target counties.

Interventions:

AFMC utilized several research methods to develop interventions including a Provider Needs Assessment, Onsite visits, and Beneficiary Personal Interviews. In order to address the root causes of disparity the interventions focused on the healthcare provider, beneficiary and community.

In addressing the healthcare providers, AFMC did academic detailing, distributed the Diabetes Standards of Care summary, flowsheets, performance tracking tools, and chart reminders. Additionally, AFMC introduced the Quality Improvement Rapid Assessment (QIRA) tool and educated providers for CME/CNE credits on Quality Improvement and Rapid Cycle. The interventions that focused on the beneficiary included HbA1c postcards, educational brochure, development and dissemination of a wallet card, reminder posters and flyers, and introduction to self-management resources. The interventions that focused on the community included

educational presentations and/or exhibits at local community events, local hospitals, senior centers and health fairs. AFMC presented using table tents, print ads and press releases.

Lessons Learned:

- The Provider Needs Assessments demonstrated that patients were not taking full advantage of the available tools and educational resources.
- On-site visits provided an opportunity to collect information and gave a clearer picture of the physical aspects of the clinic environment, the ability to observe the patient’s interaction with available materials, and the ability to view the workflow in the office. These visits also helped identify which staff member might be the best suited to be the clinic “champion”.
- The wallet card proved to be a good educational tool to improve the beneficiaries understanding of HbA1c testing and to improve setting self-management goals.

Results:

The absolute improvement for the target population was 12.3 percent. AFMC reduced the disparity by 5.5 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	60.9	73.2	12.3
Reference Population	74.1	81.0	6.9
Disparity	13.2	7.8	
Reduction in Disparity			5.5

Contact Information:
 Telephone: 877.375.5700
 401 W Capitol
 Suite 508
 Little Rock, AR 72201



Arizona

Quality Improvement Organization:	Health Services Advisory Group, Inc. (HSAG)
Target Population:	Dually Enrolled
Clinical Topic:	Diabetes
Indicator:	HbA1c

Project Objectives:

To increase the percentage of diabetic Dually Enrolled beneficiaries receiving an annual HbA1c test sufficiently to reduce the healthcare disparity between the Arizona Dually Enrolled patients and the Arizona White-only, non-Dually Enrolled, diabetic Medicare fee-for-service (FFS) patients. Additionally, HSAG sought to reduce the incidence of microvascular complications associated with diabetes and to decrease the risk of morbidity and mortality. Another objective was to further improve coordination between the Medicare and Medicaid programs and to increase the capacity and capability of the Arizona healthcare system to improve care for the diabetic Dually Enrolled population through better understanding of their characteristics and the barriers that impede appropriate medical care.

Background:

According to the 1998 status report published by the Arizona Diabetes Surveillance Committee (ADSC), diabetes mellitus (DM) will place an immense burden on the healthcare system in Arizona over the next decade. The ADSC advised that diabetes be treated aggressively using science-based process and outcome measures that will delay or prevent the occurrence of complications. It was noted that groups at risk for diabetes and its complications were not receiving the recommended care.

Study Design:

The project model was a pre/post study design using data available, including the Arizona Health Care Cost Containment System (AHCCCS) enrollment files. The baseline and remeasurement periods were specified by the Centers for Medicare & Medicaid Services (CMS). The reference group identified by CMS for the project target population was comprised of the non-Dually Enrolled, White diabetics in the Medicare FFS Program.

Interventions:

HSAG implemented interventions on four levels to address the complex health policy, health system, provider, and beneficiary. HSAG, in partnering with AHCCCS, addressed the policy issues by promoting messages to health plans, physicians, facilities, and beneficiaries; worked to design Medicaid program policies to overcome or minimize the barriers to care for the Dually Enrolled beneficiary and developed and refined methods to link data bases that identified the characteristics of the Dually Enrolled.

Interventions implemented to target the Medicaid Health Plans' health system included:

- Providing plan-specific quality indicator rates quarterly via a secure, web-based portal to help facilitate intervention cycles.
- Identifying ways for health plans to incorporate the quality indicators in contractual oversight of physicians, nursing homes, and home health agencies.
- Working with providers and encouraging participation in the sponsored Arizona State Diabetes Collaborative activities and the application of the Chronic Care Model to the complex Dually Enrolled population.

- Targeting the nursing home providers and offering technical assistance. HSAG sponsored a physicians’ diabetes collaborative, which included education and encouragement to implement systems to improve disease management.

In targeting the beneficiaries, HSAG encouraged health plans to share best practices regarding methods to improve members’ self-management skills and knowledge.

Lessons Learned:

- Organizations are willing to share successes and learn from each other if the opportunity is provided.
- By working together to coordinate measures and interventions, the state Medicaid agency and HSAG were able to coordinate quality improvement initiatives without increasing the burden on providers.

Results:

The absolute improvement for the target population was 4.0 percent. There was no reduction in disparity.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	58.4	62.4	4.0
Reference Population	79.7	84.6	4.9
Disparity	21.2	22.2	
Reduction in Disparity			-0.9

Contact Information:
 Telephone: 602.264.6382
 Fax: 602.241.0757
 1600 E. Northern Avenue,
 Suite 100
 Phoenix, AZ 85012



California

Quality Improvement Organization:	Lumetra
Target Population:	Hispanic
Clinical Topic:	Diabetes
Indicator:	HbA1c

Project Objectives:

To reduce health disparities between Hispanic and White beneficiaries with diabetes, promote diabetes awareness, increase physician referral for HbA1c testing, and to increase knowledge about Medicare coverage of diabetes supplies and services in California.

Background:

Hispanics are the largest and fastest growing ethnic group in the United States and the largest “minority” group in California. They are developing diabetes at an alarming rate, a problem that poses new threats to a strained public health system. More than 227,000 Hispanic Medicare beneficiaries reside in California and this number is expected to grow dramatically in the next decade. Hispanics disproportionately suffer from a high burden of diabetes-related complications. Specifically, Mexican Americans have high rates of nephropathy, retinopathy, amputations, and peripheral vascular disease. Many diabetes-related complications and their corresponding costs are preventable. Although the Centers for Medicare & Medicaid Services (CMS) approved name for this population is Hispanic, in California, the preferred term is Latino. For purposes of this report, the CMS approved term was used.

Study Design:

The intervention design and assessment fell into four phases. The Needs Assessment and Barrier Analysis phase included a comprehensive needs assessment of the targeted population. In the next phase, the Baseline Measurement numbers and rates were analyzed and collected in order to obtain the control and reference groups. In the Intervention Development and Implementation phase, the *Viva La Vida*, project was developed and implemented. In the last phase, the Evaluation and Assessment period, the baseline annual rates were compared to reference and contrast groups to measure the effectiveness of the project.

Interventions:

Lumetra developed a project called *Viva La Vida* and it employed a combination of community outreach and provider-focused efforts. Interventions were driven by evidence-based research and previous experience, as well as input from community leaders, stakeholders, and service providers. Specific strategies that addressed identified barriers were chosen after analyzing collected information. The interventions chosen that focused on community outreach were strategic partnerships with local and state organizations, and media outreach. Beneficiary outreach was accomplished through community events. Tool development included bilingual Self-Management Booklet for Diabetes, Medicare Fact Sheet, Physician-Patient Diabetes Prompt Card, and a Diabetes Resource Guide.

Lessons Learned:

- Media campaign worked well. Ads were placed in physician magazines and in community magazines to increase awareness of diabetes and HbA1C testing.
- Community events were successful to directly reach Hispanic Medicare beneficiaries with information about Medicare services.
- Partnerships with state organizations were extremely helpful to disseminate outreach materials.
- Collaboration proved that the synergy within the QIO between projects teams that had shared goals helped reach the objectives more efficiently.

Results:

The absolute improvement for the target population was 14.9 percent. Lumetra reduced the disparity by 9.2 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	62.7	77.5	14.9
Reference Population	78.3	84.0	5.7
Disparity	15.7	6.5	
Reduction in Disparity			9.2

Contact Information:

Telephone: 415.677.2000

Fax: 415.677.2195

1 Sansome Street,

Suite 600

San Francisco, CA 94104



Colorado

Quality Improvement Organization:	Colorado Foundation for Medical Care (CFMC)
Target Population:	Hispanics
Clinical Topic:	Breast Cancer
Indicator:	Mammography

Project Objectives:

To continue to design, implement, and evaluate education methods to increase mammography screening among Medicare Hispanics, and reduce the disparity between Medicare Hispanics and the general Medicare population. The fundamental goals were to increase breast cancer screening and to reduce mortality from breast cancer among Hispanics.

Background:

The Behavioral Risk Factor Surveillance System (BRFSS) 1995-1998 data from Colorado showed that, in the age group from 50 to 59 years, 65 percent of White non-Hispanic women had a mammogram in the past year versus 58 percent of Hispanics. In the 60 to 69 years age group, the rates were even more disparate with 59 percent for non-Hispanics versus 39 percent for the Hispanics. Earlier Medicare claims analysis demonstrated that while Hispanics' rates improved, the disparity remained greater than 7 percent. Several studies indicate that limited access to care, low income, lack of a regular source of care and low awareness of mammography benefits have been consistently reported as barriers to screening mammography for Hispanics. Research has demonstrated that disparities remain substantial after controlling for health insurance status, and that health insurance coverage and income only partially explain the disparities. These findings suggest that culture-specific barriers may play an important role in determining whether a Latina who has access to mammography will undergo breast cancer screening.

Study Design:

The study design had both a theoretical as well as a practical model. Based on an article published by the National Cancer Institute, *Theory at a Glance: A Guide for Health Promotion Practice*, CFMC followed the PRECEDE-PROCEED model as a framework for understanding potential barriers. The first five of the nine phases of the PRECEDE-PROCEED model are diagnostic and require extensive research. CFMC also used community-based participatory research (CBPR) or action research model and the Health Belief Model (HBM) in the choice of the intervention materials and development of the educational process. Practical rationale came from past experience in the Tepeyac Project.

Interventions:

CFMC concentrated the interventions into three distinct areas, statewide, Enhanced/Promotora, and 'Teach the Model' interventions. They also continued work on the successful Tepeyac Project. The Tepeyac Project used a church-based approach designed to reach out to Colorado's Latino community. The statewide consisted of mail outs in both English and Spanish, displays of printed materials and bilingual publications by Catholic churches across Colorado. The Enhanced/Promotora intervention utilized printed materials and messages of the statewide intervention but delivered them in the churches in a familiar 'fotonovela' approach, using peer-counselors, commonly referred to by their Spanish translation, Promotoras. The Promotoras approached their peers after Sunday masses, during church fairs, and other church related activities. Motivational presentations by Sister Lydia Peña, the Latina leader identified by the community, was another component of this very personal intervention. The content of her talks,

delivered from the pulpit in Spanish and English, were received with standing ovations. The “Teach the Model” intervention was to build on the “Promotora” success by empowering community volunteers to develop their own health promotion projects.

Lessons Learned:

- The powerful network of churches, communities and volunteers are eager for more health promotion projects. The Tepeyac Project has built a regional and national reputation that continues to attract new collaborators such as HMO organizations that are interested in joining the effort; aware of the potential learning from the process we went through.
- The Latino community in general has a profound distrust in the healthcare system. By working closely with the community leaders, CFMC initiated a long-term process to regain the trust of the Hispanics in the healthcare system.

Results:

The remeasurement rate was 50.6 percent, with no absolute improvement for the target population. CFMC observed a disparity of 1.8 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	51.0	50.6	-0.5
Reference Population	64.2	61.9	-2.3
Disparity	13.1	11.3	
Reduction in Disparity			1.8

Contact Information:

Telephone: 303.695.3300
 Fax: 303.695.3343
 2851 South Parker Road,
 Pavillion Towers 1, Suite 300
 Aurora, CO 80014-2713



Connecticut

Quality Improvement Organization:	Qualidigm
Target Population:	African American
Clinical Topic:	Breast Cancer
Indicator:	Mammography

Project Objectives:

To reduce the disparity in mammography use between this targeted group and white non-dually enrolled female beneficiaries ages 50-67. Qualidigm's specific objective is to use evidence-based interventions to increase mammography utilization. In addition, Qualidigm found it necessary to understand the population being targeted and how it differs from the reference population and to monitor the success of the intervention efforts.

Background:

Persistent disparities and lessons learned from an earlier project provided a strong foundation for focusing on mammography for African American beneficiaries. The National Cancer Institute and the American Cancer Society, among other organizations, continue to recommend mammography screening annually or every 1 to 2 years as the best means of detecting breast cancer. An increase in mammography screening leads to a decrease in the disparity for African American women and ultimately an increase in the detection of early stage breast cancer and reduces the mortality rate from breast cancer among the target group.

Study Design:

The study design is a pre-post intervention study with a contrast group. The pre-intervention or baseline period is the 2 years ending June 30, 2001. The post-intervention or remeasurement period is the 2 years ending June 30, 2004. Four groups of female Medicare beneficiaries, ages 50-67, at the start of the measurement periods, were compared.

Interventions:

Qualidigm's intervention approach was based on careful consideration of: 1) a systematic review of the peer-reviewed literature on interventions to improve the use of mammography screening among underserved populations; 2) an internal review of the 6th Scope of Work experience of Qualidigm and other QIO projects with this target population; 3) a review of available data on baseline mammography utilization and Connecticut primary care physicians (PCP) and beneficiary characteristics; and 4) discussions with stakeholders, including African American women, to determine their needs and their preferred QI strategies and interventions. Based on this information, Qualidigm designed a practical and efficient, evidence-based technical approach that has: 1) integrated activities; 2) developed and maintained ongoing collaborative relationships with healthcare providers and information intermediaries who routinely interact with Medicare beneficiaries; 3) customized interventions based on the needs of the target population; 4) provided ongoing technical assistance to implemented interventions; and 5) facilitated shared learning.

The program was based on a model developed by Qualidigm, which includes an educational component, combined with community screening. The intervention targeted African American female Medicare beneficiaries and consisted of three phases. In the first phase, Qualidigm worked with community programs and local voluntary health organizations providing education and mammography services. The second phase, a provider component, consisted of a direct mail

campaign targeting physicians of African American female Medicare beneficiaries and outreach with community health centers and hospital emergency departments. This outreach supplemented the ongoing beneficiary direct mail campaign. The final phase enlisted faith-based organizations to implement and organize a multi-site African American Women’s Health Day.

Lessons Learned:

- Establishing a common goal that applies to all key partners is essential.
- Taking time to build relationships in the community affords links that can be built upon for future activities and sustainability.
- Our community collaborators are critical to our community intervention strategy.
- A coordinating resource is instrumental in operationalizing the logistics for the Women’s Health Day on the actual event-screening day.

Results:

The absolute improvement for the target population was 5.4 percent. The reduction in disparity was 2.1 percent.

Table1. Results of Targeted intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	50.8	56.2	5.4
Reference Population	62.1	65.3	3.2
Disparity	11.3	9.1	
Reduction in Disparity			2.1

Contact Information:
 Telephone: 860.632.2008
 Fax: 860.632.5865
 100 Roscommon Drive
 Suite 200 North
 Middletown, CT 06457



District of Columbia

Quality Improvement Organization: Delmarva Foundation of DC

Target Population: African American

Clinical Topic: Heart Failure

Indicator: LVF Assessment

Project Objectives:

To reduce the disparity of the left ventricular function (LVF) assessment rates between African Americans and Caucasians served by a hospital in Washington, D.C.

Background:

Over the last several years there has been a decline in the national death rate due to heart disease; however, the rate of decline for the African American population was lower than that of the Caucasian population. The primary objective of this project is to increase the rate of LVF assessment in the African American Medicare population hospitalized with a diagnosis of heart failure.

Study Design:

The Delmarva Foundation of the District of Columbia worked with hospitalized congestive heart failure (CHF) patients as the intervention group. The remaining six hospitals in the District served as the control group.

Interventions:

Delmarva's intervention efforts focused on two components: 1) targeting health providers and hospital executives to impact hospital practice and 2) providing objective feedback data to medical and executive staff. In targeting the first group, Delmarva convened a focus group consisting of cardiologists, internists, nurses, nurse practitioners, hospital executives, medical director, hospital quality improvement representative, and other stakeholders to critically review the disparity data and to consider the possible cause(s), barriers, and solutions to the LVF assessment disparity. Delmarva incorporated the opportunities for improvement and recommendations from the focus group into the education and information interventions. The focus group identified physician champions to educate providers about LVF assessment and CHF management. These champions carried the message formally through lectures and resident teaching rounds at the hospital, and informally through personal interactions with medical staff, residents, and other health providers. In addition to the physician/topic champion-driven educational programs, Delmarva sponsored "Visiting Professor" expert lecturers for grand rounds and department conferences on the management of CHF, emphasizing LVF assessment. Delmarva shared and discussed problems, issues, and best practices about CHF at quality improvement meetings. These meetings or other task forces created by the hospital to address this issue were used to identify other interventions in order to achieve the decrease in the disparity.

Lessons Learned:

- It became necessary to vary the intervention approach and focus efforts at the primary care physicians who admitted the majority of CHF patients.
- There was also a need to respond to assertions by the CHF unit that the data was skewed by the inclusion of dialysis patients who were admitted with a primary or secondary diagnosis of CHF but who only received dialysis. Those patients were less likely to get LVF assessments and were predominantly African American. A subsequent analysis was done, and while the CHF unit's assertion was borne out by the data for the likelihood of LVF assessment, it was shown that inclusion or exclusion of these patients had no statistically significant effect on the overall rates for CHF care.

Results:

The absolute improvement for the target population was 7.2 percent. There was no reduction in disparity.

Table1. Results of Targeted intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	73.6	80.7	7.2
Reference Population	83.9	90.8	6.9
Disparity	10.3	10.1	
Reduction in Disparity			0.3

Contact Information:

Telephone: 202.293.9650

Fax: 202.293.3253

620 L Street, NW

Suite 1275

Washington, DC 19810



Delaware

Quality Improvement Organization:	Quality Insights of Delaware (QID)
Target Population:	African American
Clinical Topic:	Diabetes
Indicator:	Eye exam

Project Objectives:

To decrease the disparity in dilated eye exam rates between African Americans and Caucasian Medicare beneficiaries in New Castle County, Delaware. This was accomplished by using eye exams that help identify retinal changes and detect other eye problems at earlier or more treatable stages.

Background:

Diabetes is a disease that affects the body's ability to produce or respond to insulin, a hormone that allows blood glucose (blood sugar) to enter the cells of the body and be used for energy. Compared to the general population, African Americans are disproportionately affected by diabetes. The most prevalent disparities are that African Americans are almost two times more likely than white Americans to have diabetes; twenty-five percent of African Americans between the ages of 65 and 74 have diabetes; and one in four African American women over 55 years of age has diabetes.

Study Design:

Work on this project did not involve sampling or case abstraction, but instead measured the coverage of services in the targeted populations. Analytic data files provided all Medicare diabetic beneficiaries that were used as denominator for the project indicator. QID identified African Americans with diabetes in New Castle County as the targeted intervention underserved group. The White diabetics in the same county composed the reference population. The diabetics from Kent and Sussex counties, plus a small number of beneficiaries from other counties are used as the control/contrast group. In the control/contrast group, no intervention was provided for either the African American or the White populations.

Interventions:

The first intervention was a public awareness campaign in partnership with the American Diabetes Association in Delaware (ADA), the Metropolitan Urban League of Wilmington, and the City of Wilmington to increase initial dilated eye screenings for African Americans and focus upon getting more African Americans already diagnosed with diabetes to have dilated eye screenings. This campaign included successful work on Diabetes the Sunday Project and a Diabetes Health Fair in housing communities.

QID was able to reach predominately African American Churches to serve as conduits for health related awareness programs, public education and ensure necessary tools were available to effectively reach and educate their congregations and residents. QID and its partners coordinated the program using the "train the trainer" method. Additionally, QID along with representatives from the ADA, held training sessions for the church leaders or champions from the community who then led the Diabetes Sundays at their churches or community.

QID also created a coalition with various partners to increase the awareness and prevention of diabetes and its complications. The goal of this coalition was to improve the quality of diabetes care to the multicultural population through empowerment and education to those at risk and

those living with diabetes. The Coalition has participated in community outreach activities and held its First Multicultural Diabetes Expo which consisted of three plenary speakers, workshop sessions, entertainment, and give-a-ways.

Lessons Learned:

- It is imperative to the success of the project to appropriately represent your target population. The project picked up momentum when an African American was hired to help with community relations.
- Diabetes is a chronic disease that you do not die from immediately, so there is less urgency of treatment compared to the diagnosis of cancer.
- Recruit churches through the minister’s wife or another key person who has an interest in diabetes. The minister himself may be too busy to reach for the initial contact. Use churches to recruit other churches.
- People like to hear “real” stories told from those with the disease and to whom they can relate. It is important to build trust/relationship in order to get your message across.
- Get the largest church involved first; everyone wants to do what the larger churches are doing.
- Try to get the message to the home bound and do a mailing to their caregivers.
- The best days to “drop-in” at a church are Tuesdays, Wednesdays, or Thursdays.

Results:

The rate for the target population showed an absolute improvement of 5.1 percent. QID reduced the disparity by 5.6 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	66.3	71.4	5.1
Reference Population	78.7	78.3	-0.4
Disparity	12.4	6.8	
Reduction in Disparity			5.6

Contact Information:
 Telephone: 302.478.3600
 Fax: 302.475.7317
 Baynard Building
 3411 Silverside Road Suite 100
 Wilmington, DE 19810



Florida

Quality Improvement Organization:	Florida Medical Quality Assurance, Inc (FMQAI)
Target Population:	African American
Clinical Topic:	Diabetes
Indicator:	HbA1c

Project Objectives:

To increase the annual HbA1c monitoring among African American Medicare beneficiaries with diabetes in Florida and to reduce the disparity of HbA1c monitoring between the African American Medicare diabetics and non-dually enrolled Caucasian Medicare diabetics in the target areas.

Background:

Analysis of the Centers for Medicare and Medicaid Services (CMS) claims data for the state of Florida revealed a 9.4% disparity in HbA1c monitoring between African American and white non-dually enrolled Medicare beneficiaries with diabetes. The baseline HbA1c rate for African American diabetic beneficiaries was 72.3% versus the HbA1c rate for non-dually enrolled Caucasian diabetic beneficiaries of 81.6%. This baseline value indicated a significant opportunity for improvement.

Study Design:

This was a prospective intervention trial with study-control design. Pre/post-intervention measures on the indicator were used to evaluate the effectiveness of the intervention. The intervention group was the African American Medicare diabetic population in the target areas. The reference group was the non-dually enrolled Caucasian Medicare diabetic population in the target areas. The control/comparison group was the “national comparison group” determined by CMS. This group, in essence, constituted an out-of-state control/contrast group that consisted of composite underserved populations not subject to the diabetes disparity project interventions.

Interventions:

FMQAI focused on two components: the Physician & the Stakeholder/Beneficiary. FMQAI targeted the physician through scheduled and non-scheduled face-to-face visits to conduct peer-to-peer academic detailing. FMQAI provided statewide, county, zip code and physician-specific data (HbA1c rates) to physicians as available from CMS. FMQAI also provided materials for systems change, such as an Adult Preventive Health Care flow sheet, diabetic flow sheets, a Diabetic Progress Record, reminder chart stickers, a diabetes registry and a train-the-trainer tool. The team also made available Diabetes Medical Practice Guidelines, a Pocket Reference Guide and other educational materials that recommend frequency of testing and blood sugar/HbA1c conversion.

FMQAI partnered with established community stakeholder organizations that had diabetes programs and outreach activities. Additionally, FMQAI conducted regional meetings and site visits, media campaigns including Public Service Announcements (PSAs) on TV, radio and newspapers, and mailed letters to African American Medicare diabetic beneficiaries encouraging HbA1c testing as appropriate. Also, FMQAI provided train-the-trainer, “Unlock the Mystery of Diabetes,” tool and provided aggregate quarterly data to stakeholders through mailings. Furthermore, FMQAI provided technical assistance to stakeholders, along with articles, grant support letters, media and event support. FMQAI also developed culturally sensitive brochures on

HbA1c testing, a diabetes poster and materials at 5th-6th grade reading level with many illustrations of diabetes care for distribution.

Lessons Learned:

- Reminder systems like electronic medical records, flow sheets or preprinted progress notes were effective for physicians to adhere to diabetes guidelines.
- Reviewing the data during a short visit ensured awareness of the disparity.
- Focus group results reported that most physicians did not like flow sheets and although they approved of the content, they felt that they already had too many of these materials. Most physicians intended to incorporate features they liked.
- Relationships with stakeholders need to be individualized. The QIO needs to be flexible and consider the instability of community organizations, as this will affect how much they can participate.
- Stakeholders needed frequent reminders to submit data and needed help interpreting the data and how to use it. Phone and email contact rather than a tracking tool worked better for feedback.

Results:

The absolute improvement for the target population was 9.6 percent. The reduction in disparity was 5.3 percent.

Table1. Results of targeted intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	71.1	80.8	9.6
Reference Population	81.9	86.2	4.3
Disparity	10.8	5.4	
Reduction in Disparity			5.3

Contact Information:
 Telephone: 813.354.9111
 Fax: 813.354.0737
 5201 W. Kennedy Blvd
 Suite 900
 Tampa, FL 33609



Georgia

Quality Improvement Organization:	Georgia Medical Care Foundation (<i>gmcf</i>)
Target Population:	Rural
Clinical Topic:	Diabetes
Indicator:	HbA1c

Project Objectives:

To reduce the disparity in the use of glycosylated hemoglobin (HbA1c) testing between rural Medicare beneficiaries in South Georgia and urban beneficiaries throughout Georgia. The project specifically address the Healthy People 2010 objective 5-12: “Increase the proportion of adults with diabetes who have a glycosylated hemoglobin measurement at least once a year.”

Background:

In Georgia, diabetes mellitus is more prevalent among women than men, and among African Americans than whites. According to the 2003 Georgia Diabetes Report, African American women are twice as likely to be diagnosed with diabetes than any other race/gender group. Older populations are most likely to have the disease than younger populations. The majority of diabetes cases in Georgia are among adults who are from 60 through 69 years of age. Moreover, among all race and ethnic groups, diabetes death rates increase dramatically with age. The prevalence of adults living with diabetes in Georgia is higher in the southern half of the state than in the northern portion. Furthermore, South Georgia is comprised, primarily, of rural counties where Medicare beneficiaries are less likely to be tested for glycosylated hemoglobin than beneficiaries residing in northern Georgia. As a result, the rural counties of Georgia were the underserved population groups for this intervention project, specifically the Southwest Georgia (SOWEGA) and Magnolia Coastlands Health Education Center (AHEC) areas.

Study Design:

The study design used was pre-post assessment, facilitated training and toolkit of materials. *gmcf*, estimated that 9,862 Medicare beneficiaries with diabetes resided in the rural counties of the AHEC area and 9,035 rural diabetes beneficiaries to be residing in the SOWEGA-AHEC area. The targeted intervention group had a lower baseline HbA1c testing rate than the comparison/contrast group.

Interventions:

gmcf's intervention was designed to alleviate perceived and real barriers by focusing on Clinical Seminars, Academic Detailing and Beneficiary Education. *gmcf's* scheduled seminars at 6:00 pm in various venues throughout the targeted area and employed aggressive measures that consisted of distributing save-the-date cards, mailing invitations to physicians multiple times for different sessions held in their vicinity, and conducting initial and follow-up telephone calls. From its academic detailing visits, *gmcf* identified several areas that lend support to continual technical assistance to rural physician offices. *gmcf* worked with providers to bring American Diabetes Association approved education programs to the beneficiary in their communities, and distribute, within their offices, more educational materials/ tools that could help beneficiaries to better understand and monitor their meal planning and HbA1c rates.

Lessons Learned:

- To effect systems change, marketing efforts for quality improvement projects should target all office staff involved in the care of diabetes patients, and not just physicians.
- Collaboration with area hospitals is key to galvanizing rural health providers to attend continuing education seminars in rural Georgia. Rural hospital administrators have insight into what strategies would most likely yield high provider participation among physician offices in their communities, and are self-motivated to market educational projects that they view as partnerships between themselves and a project’s lead agency.
- Academic detailing allows visiting educators to develop a more thorough understanding of demands faced by rural physician offices in diabetes care delivery to Medicare beneficiaries.
- Quality Improvement Coordinators and Education Directors at the rural hospitals had strong interdependent relationships with the physician offices in their immediate and surrounding communities as well as proven methods for recruiting providers for educational opportunities.

Results:

The absolute improvement for the target population was 9.9 percent. The reduction in disparity was 2.3 percent.

Table1. Results of Targeted intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	69.2	79.0	9.9
Reference Population	75.9	83.5	7.6
Disparity	6.8	4.5	
Reduction in Disparity			2.3

Contact Information:
 Telephone: 404.982.0411
 Fax: 678-527-3030
 1455 Lincoln Parkway
 Suite 800
 Atlanta, GA 30346



Hawaii

Quality Improvement Organization:	Mountain-Pacific Quality Health Foundation
Target Population:	American Samoans
Clinical Topic:	Diabetes
Indicator:	Lipid Profile

Project Objectives:

To continue to improve the quality of care for American Samoans (AS) with diabetes by targeting the sole provider of diabetes care on the island of Tutuila in American Samoa (AS), a territory of the United States.

Background:

Previous quality improvement efforts helped to lay the foundation for improving diabetes care for AS. At the first phase of the project, there were 2,430 diagnosed diabetics in the Chronic Disease Management System (CDMS) at the Lyndon Baines Johnson Tropical Medical Center (LBJTMC), and 1,462 had been treated at the clinic within the previous year.

Study Design:

The study design included assessing the impact of a simple numeric comparison of change between the baseline and remeasurement in the population.

Interventions:

Among the interventions Mountain-Pacific Quality Health Foundation (MPQHF) used on this project were on-site visits, seminars, meetings with the clinic's CEO and CFO and follow-ups. MPQHF provided disposable HbA1c testing kits and monofilaments for foot exam assessments. MPQHF held educational sessions, installed stand-alone CDMS system and Diabetes Quality Care Monitoring System. A blue one-page sheet that contained the previous visit's lab results, eye exam date, BP, and immunization schedule was placed on the charts of diabetic patients before their physicians examined them. MPQHF worked with the acting LBJTMC diabetes nurse coordinator to obtain a diabetic educator certification and met with Quality Improvement and administration to form a team and encourage monthly meetings. Also MPQHF assisted the LBJTMC staff to provide clinical education to physicians, nurses, and others. MPQHF also provided brochures, video programs, stamps, and posters to focusing on diabetes education for the providers and provided brochures, posters, and refrigerator magnets for distribution to patients. MPQHF provided technical assistance to the AS Department of Health, funded radio advertisements and worked with the AS ophthalmologist.

Lessons Learned:

- It was important to build a relationship with partners and stakeholder and it was critical that the same MPQHF staff person went to each on-site visit.
- Because clinicians can influence the staff to take appropriate action it was crucial to always get clinician buy-in with each intervention.
- Because LBJTMC did not meet all the requirements needed to obtain a durable medical equipment billing number, it was not always easy for them to secure adequate supplies, such as monofilaments.
- Funding in the AS is an issue. The U.S. government added to the territory resolution in 1900 that all medical care would be provided to the people of AS for free however, it does not direct funds specifically to healthcare nor does it hold the AS government accountable for the funds that are allotted for healthcare.
- Due to cultural beliefs and customs, the Samoan physicians interact with a MPQHF male physician only.
- Internet-based CDMS was not stable in this environment; more testing should have been done in that environment before implementation.
- The report gathering system proved to be too complicated for staff with limited IT experience. Keeping it simple is the key to a successful intervention. The physicians ignored any tool that looked complicated.
- Many physicians were new to LBJTMC and are not American trained.
- Cultural and linguistic appropriate materials were needed in both English and Samoan.
- The ophthalmologist could have been a key to diagnosing diabetic retinopathy, however he did not have a UPIN therefore his data was not entered into the database.

Results:

The absolute improvement for the target population was 13.4 percent. The reduction in disparity was 8.1 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	22.4	35.8	13.4
Reference Population	83.2	88.5	5.3
Disparity	60.8	52.7	
Reduction in Disparity			8.1

Contact Information:

Telephone: 808.545.2550
 Fax: 808.440.6030
 1360 S. Beretania Street
 Suite 501
 Honolulu, HI 96814



Iowa

Quality Improvement Organization:	Iowa Foundation for Medical Care (IFMC)
Target Population:	Rural
Clinical Topic:	Pneumonia
Indicator:	Pneumococcal (PPV) vaccine-inpatient

Project Objectives:

To increase the occurrence of administration of the Pneumococcal Pneumonia Vaccine (PPV) in pneumonia patients admitted to rural hospitals. The overarching goal was to reduce an apparent disparity between urban hospitals and a selected group of rural hospitals for this measure. The long-term goal of the project was to reduce hospital admissions, readmissions and reduce morbidity and mortality associated with pneumonia in rural Medicare beneficiaries.

Background:

According to The Centers for Medicare & Medicaid Services (CMS) reports from 2002, there are approximately 502,250 Medicare beneficiaries in Iowa. Furthermore, hospital census data show approximately 62% reside in rural designated areas. In 2003, Medicare claims indicate there were reportedly 13,301 admissions for pneumonia. CMS baseline surveillance data indicated that only 23.3% of Medicare patients hospitalized for pneumonia received the vaccine. Because over half of the state's Medicare beneficiaries reside and/or seek care in rural areas, failure to immunize at a statewide level and particularly in the rural setting was an area of concern. CMS data showed a 12.7% disparity between the proposed Intervention Group's performance and that of an urban reference group, thus providing evidence for an opportunity to improve the quality of care provided.

Study Design:

The study design employed a controlled trial of multiple interventions directed at the target hospital population. The project design isolated the Intervention Group activities and allowed a comparison with the rural contrast and urban reference groups.

Interventions:

IFMC used literature based educational interventions to change physician behavior. These interventions included academic detailing, audit and feedback, reminder system, printed material and utilization of local opinion leaders. Academic detailing consisted of one-on-one peer education and counseling, distribution, review, and reinforcement of evidence based materials supporting the impact of "missed opportunities." IFMC facilitated peer-to-peer referrals and also engaged a national clinical expert. In the audit and feedback, interventions data were used to directly target hospital physicians and CEOs. Individualized letters were sent to each Chief Executive Officer (CEO) addressing PPV performance, and follow up calls were conducted to congratulate successes in high performers and provide feedback and education for low performers. Data and information supporting the use of a nurse screening process and standing orders was provided and root cause analysis of failed cases was implemented. IFMC staff worked with local opinion leaders to gain local support, build relationships and provide a local expert for information. Reminder stickers and other printed material were distributed including evidence-based materials, website promotion, and examples of standing orders. A conference call featuring national experts was also available for Intervention Group hospitals.

Lessons Learned:

- IFMC learned rural hospital staff were not as proficient in Quality Improvement as expected.
- Limited rural resources were directed to data collection and public reporting.
- Data alone is not enough to impact change.
- Rural hospitals could not improve PPV rates faster than the Prospective Payment System (PPS) hospitals due to the Annual Payment Update (APU) influence.
- Multiple interventions are more effective than a single intervention.
- Engagement of hospital leadership is key.

Results:

The absolute improvement for the target population was 25.7 percent. There was no reduction in disparity.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	15.2	40.9	25.7
Reference Population	27.9	61.8	34.0
Disparity	12.7	20.9	
Reduction in Disparity			-8.2

Contact Information:

Telephone: 515.223.2900

Fax: 515.222.2407

6000 Westown Parkway

Suite 350 E

West Des Moines, IA 50266-7771



Idaho

Quality Improvement Organization:	Qualis Health
Target Population:	Rural
Clinical Topic:	Pneumonia
Indicator:	Antibiotics w/in 4 hrs arrival

Project Objectives:

To increase the number of community-acquired pneumonia (CAP) patients receiving initial antibiotic within 4 hours of arrival at targeted rural hospitals.

Background:

Idaho hospitals are predominately located in rural communities, with approximately 70% of acute care hospitals having fewer than 100 beds compared to the national state average of 46%. Because of Idaho's low level of urbanization, a rural/urban disparity was chosen. The pneumonia measure of providing antibiotic within 4 hours of hospital arrival was found to have a rural/urban disparity with a subset of the rural facilities. This measure was selected and identified as the highest potential for change.

Study Design:

Once the disparity project selection was identified, and approved, the initial plan was to build partnerships with the targeted hospitals by capitalizing on earlier positive interaction and project participation. The partnership would be used to develop a multidisciplinary team within each facility to (1) use Root Cause Analysis (RCA) to identify problems as well as barriers, and (2) use rapid-cycle quality measure assessments and design problem-specific interventions unique to the target hospital to improve timely antibiotic administration (within 4 hours of hospital arrival). Over time, the cycle of using RCA to identify problems/barriers, the application of rapid-cycle testing of interventions and then measuring impact of changes would yield improved antibiotic delivery time for CAP patients.

Interventions:

The initial intervention included early recruitment, senior leadership endorsement and commitment of physicians and staff. Partnership building with targeted hospitals was essential and consistent hospital participation was key. A simplified data collection tool was used to conduct assessment of current practices using RCA and round table evaluations by a multidisciplinary team.

Multiple intervention tools were used such as informational fliers, posters, chart reminders, physician education, and nurse/pharmacy department in-service training. Key among the tools were the one-on-one consultations that included abstraction, data analysis, and care pathway/algorithm refining, education and communication tools and most significantly the development of physician champion motivators to design and implement pre-printed orders. A pre-printed order for antibiotic timing procedures was another key factor of success.

Lessons Learned:

- A collaborative partnership approach and developing stronger personal relationships was fundamental to the implementation and success of this project.
- The multidisciplinary team approach supported the unique quality of care needs of each hospital. This method proved immediately successful as some of the initial barriers could follow rapid-cycle processing, planning, testing and implementation.
- The implementation of Healthcare Failure Mode Effective Analysis would bring a systemic healthcare process development for the prevention of further error.

Results:

The absolute improvement for the target population was 31.1 percent. The reduction in disparity was 26.0 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	44.7	75.8	31.1
Reference Population	58.8	64.0	5.1
Disparity	14.2	-11.8	
Reduction in Disparity			26.0

Contact Information:

Telephone: 208.343.4617

Fax: 208.343.4705

720 Park Blvd.

Suite 120

Boise, ID 83712-7756



Illinois

Quality Improvement Organization:	Illinois Foundation for Quality Health Care (IFQHC)
Target Population:	Rural
Clinical Topic:	Heart Failure
Indicator:	LVF Assessment

Project Objectives:

To improve both the use and documentation of appropriate diagnostic tests needed to evaluate left ventricular function (LVF) in heart failure patients admitted to Illinois' rural hospitals. Additional objectives for the project were to reduce an apparent disparity in LVF testing seen between a designated rural group of hospitals, a comparison group of urban hospitals, and a control group of rural hospitals. Ultimately, the long term goal was to reduce admissions, readmissions, and mortality for rural Medicare beneficiaries with this diagnosis by promoting and training on improved care management processes.

Background:

In the initial stages of the project, baseline data showed an 18.69 percent disparity between Illinois' rural and urban hospitals for the Heart Failure (HF) LVF Assessment indicator. The data source also indicated a 14.5 percent disparity between the proposed intervention group's performance on this measure and all urban hospitals' performance giving IFQHC an opportunity for successfully impacting beneficiaries.

Study Design:

The study design for the main provider-based component of the project was a pre/post assessment of the rate of compliance with the targeted measure. The design allowed for comparison of an intervention group with a contrast group of rural hospitals that were not engaged in the project, and a reference group of urban hospitals who did not participate in the project.

Interventions:

The interventions included evidence-based educational materials targeting a multidisciplinary group of providers including physicians, physician's assistants, nurses, hospital administrators, quality improvement personnel, case managers, radiology, health information staff, unit clerks/secretaries, and other key hospital personnel caring for HF patients. Additional interventions included chart audits and feedback, quality improvement training, physician champion/local opinion leader engagement and development, peer-to-peer sharing, and a key-stakeholder discussion group regarding culture and leadership in rural communities. IFQHC also collaborated with Southern Illinois University Telemedicine Center (SIU), western area Illinois Health Education Consortium/Area Health Education Center (AHEC) and the SIU clinical faculty to test an educational session for physicians.

Lessons Learned:

- Relationships developed with local opinion leaders and physician champions are beneficial and empower local leadership to reinforce quality improvement initiatives in the state.
- The initiative reinforced the need to explore leadership issues and culture in small communities and how these can influence care provided by rural hospitals.
- Reinforcement and clarification of the physician’s role in quality measure assessment supports improvements in care.
- The expansion of telemedicine into rural health delivery systems is an important link for rural hospitals, primary care clinics, medical schools, and individual providers to enable dissemination of information and peer to peer discussion.
- Hospitals responded positively to the pre-visit checklist and reference materials sent prior to the onsite visit.
- Providers liked the combination of chart audit findings, written recommendations and targeted intervention ideas. Providing this information in Report Cards at the conclusion of the visit helped give facilities an overall picture of where they stood in addressing the targeted measure.
- Feedback letters sent to hospital leadership and quality improvement contacts as a follow-up to the initial visits were well received.
- Selection of the Intervention Group by geographic location and pre-existing relationships worked well. As hypothesized, using these established contacts allowed the QIO to work quickly and gain easy access to hospital staff and medical records, and make rapid changes to improve care and decrease the disparity.

Results:

The rate for the target population showed an absolute improvement of 18.2 percent. IFQHC reduced the disparity by 5.6 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	54.2	72.4	18.2
Reference Population	72.6	85.3	12.7
Disparity	18.4	12.9	
Reduction in Disparity			5.6

Contact Information:
 Telephone: 630.928.5881
 2625 Butterfield Road
 Suite 102E
 Oak Brook, IL 60523



Indiana

Quality Improvement Organization:	Health Care Excel, Inc.
Target Population:	African American
Clinical Topic:	Diabetes
Indicator:	HbA1c testing

Project Objectives:

To reduce the disparity in glycosylated hemoglobin (HbA1c) testing between African American and Caucasian Medicare beneficiaries with diabetes in the three Indiana counties with the largest number of African Americans.

Background:

According to an article published in April 2004 in the Journal of the National Medical Association, Husaini et al indicates that 13% of African Americans have diabetes, compared to 6.2% of the general U.S. population. African Americans also are more likely to experience greater disability from these complications and die at an earlier age. In *The Burden of Diabetes in Indiana* report published by the Indiana State Department of Health (ISDH), Diabetes Prevention and Control Program, statistics demonstrate that Indiana is above the national average in prevalence of diabetes in the African American population.

Study Design:

Health Care Excel, Inc. selected a theoretical framework for this project based on an assessment of the target population, literature review, information from the Underserved Quality Improvement Organization Support Center (UQIOSC), and the success of previous work.

Interventions:

Successful interaction with African American beneficiaries requires an understanding of cultural preferences and the use of culturally appropriate materials. Interventions were focused on three counties, Lake county, Allen county and Marion county. The interventions included *Spread the Word About Diabetes*, a twelve-page full-color culturally appropriate flip chart to be used in focus groups. This diabetes flipchart was personally distributed to all minority health coalitions in Indiana with detailing of content to staff. Health Care Excel, Inc., adopted and distributed pamphlets, brochures, bookmarks, fans, calendars and other educational materials to African American churches and health fairs. Health Care Excel worked with Lake County Minority Health Coalition (LCMHC) who received a grant to organize a Faith Health Initiative, had a radio presentation on diabetes and the importance of self-management. The staff also addressed physician office staff and neighborhood clinics and provided them with diabetes materials. Health Care Excel Inc. worked with Medical Informatics Engineering (MIE) and the Health Disparity Coalition to reach the hospital foundations, guilds, other organizations serving the African American population. The staff also partnered with a community pharmacy, Allen County Urban League, the Minority Health Coalition of Marion County (MHCMC), and a home health agency to distribute diabetes educational materials. These partnerships led to other work including successful outcomes of the Women's Health Fair, and the Diabetes Sunday program. Health Care Excel Inc. did a cold mailing containing an introductory letter, a packet of educational materials for review, and an order form to beauty salons, attempting to establish a health resource area in each facility. Health Care Excel Inc. also participated in the annual *Too Sweet for Your Own Good* and other conferences and distributed materials and interacted with attendees. Another effort was a teleconference on cultural competency organized in October 2004.

Lessons Learned:

- Partnerships proved to be the most valuable resource in order to reach the goals of the initiative.
- Cold mailing was not effective, there was no response from the beauty salons requesting the free health education materials. Further “cold mailings’ were not conducted for this initiative.

Results:

The absolute improvement for the target population was 5.9 percent. The reduction in disparity was 1.1 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	65.3	71.2	5.9
Reference Population	77.8	82.7	4.9
Disparity	12.5	11.5	
Reduction in Disparity			1.1

Contact Information:
Telephone: 812.234.1499
Fax: 812.232.6167
2901 Ohio Boulevard
Terre Haute, IN 47803



Kansas

Quality Improvement Organization:	Kansas Foundation for Medical Care, Inc. (KFMC)
Target Population:	Rural
Clinical Topic:	Breast Cancer
Indicator:	Mammography

Project Objectives:

To decrease breast cancer mortality rates for female Medicare beneficiaries aged 50-67 in the 14 counties of Southeast Kansas by increasing the number of beneficiaries that received mammograms.

Background:

At project initiation, the mammography rate for Medicare women aged 50-67 in these rural southeastern Kansas counties was 56.9 percent, a rate almost 7 percent lower than the rate for Kansas Medicare women in the urban counties within the Metropolitan Statistical Area (MSA). This lower rate may be due at least in part to one or more of the following factors: geographic isolation, low educational and socio-economic status of the residents, the number of residents who are dually eligible for Medicaid and Medicare coverage, the shortage of healthcare practitioners, and the disproportionate number of the population that are disabled.

Study Design:

This project used two separate study designs that reflect two types of data collection. Phase one was a descriptive study, which provided a cross-sectional needs assessment of the intervention population related to barriers to mammography utilization. Phase two of this project intervention was designed and implemented based on knowledge gleaned during Phase one. This phase utilized a quasi-experimental pre-test/post-test design with a non-equivalent urban female beneficiaries reference group and a CMS-provided national comparison group for the intervention.

Interventions:

As part of research for this project, KFMC implemented a three-pronged intervention approach which consisted of targeting providers, mammography facilities, and beneficiaries.

The providers were targeted through direct contact with physician offices in the 14-county intervention area. The objective of the physician intervention was to increase communication between the physician and the beneficiaries. The interventions included targeted mail outs to all physicians, academic detailing visits, presentations at professional meetings, collaborative stakeholder meetings, and the use of Kansas Outpatient Rapid Assessment (KORA) tool. KORA is a one-page, patient assessment tool designed to provide a simple method of reminding doctors and patients about preventive services, including mammography.

The interventions for targeting the mammography facilities included data sharing conference calls, monitoring of rates, on site visits, and collaborative stakeholder meetings. The interventions reaching the beneficiary included a series of educational mailings, a brochure outlining Medicare benefits for mammography, media campaigns, presentations at community events and the KORA collection tool. Other interventions were the distribution of posters, training session for the stakeholders, customizable press releases, and news releases about mammography. Additionally,

KFMC made presentations at community health fairs, women’s group meetings, and senior centers in SE Kansas.

Lessons Learned:

- Many providers indicated they are increasingly pressured to schedule more patient visits per day.
- Feedback from onsite visits revealed most practitioners have developed flowsheets but they are not consistently using them. Time constraint was the most common reason cited and they do not have the resource capability to generate reminders, but indicated those sent by the mammography facilities had a positive impact.
- The KORA measurement program was very useful in prompting mammograms for a small group of women and increasing physician awareness about mammography and performance measurement.
- Future projects will require strong buy-in and support from the radiology community.
- Regular stakeholder meetings are effective in activating local leaders and disseminating key messages within their communities.
- Further education about Medicare coverage using simplified educational material is needed.
- Further exploration is needed to better understand the issues leading to low mammography rates for the disabled, which comprise over 30 percent of the women in the target population.

Results:

There was no absolute improvement for the target population. KFMC reduced the disparity by 1.4 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	56.8	55.8	-1.0
Reference Population	63.2	60.8	-2.4
Disparity	6.4	5.0	
Reduction in Disparity			1.4

Contact Information:
 Telephone: 785.273.2552
 Fax: 785.273.0737
 2974 S.W. Wanamaker Drive
 Topeka, KS 66614-4193



Kentucky

Quality Improvement Organization:	Health Care Excel of Kentucky
Target Population:	Rural
Clinical Topic:	Breast Cancer
Indicator:	Mammography

Project Objectives:

To identify female Medicare beneficiaries who should be receiving a biennial mammogram, who were between 50 to 69 years of age, and resided in the 44 rural Appalachian counties of Kentucky. Furthermore, to increase the proportion of these women who receive mammograms to at least the rate of the other rural and urban women residing in Kentucky.

Background:

Breast cancer is the most frequently diagnosed non-skin cancer among women in the United States. In 2004, nearly 216,000 new cases of invasive breast cancer were expected to be diagnosed, along with another 59,390 new cases of breast cancer. An estimated 40,921 deaths occurred in women from breast cancer during 2004. The past 20 years reflect increased rates of breast cancer with a slower increase beginning in the 1990's, when mandated legislation to cover screening mammography was enacted. The high-risk group continues to be women 50 years of age or older. Recent data from the American Cancer Society (ACS) indicates a decline of 2.3% per year from 1990 to 2000 in breast cancer mortality in all women, with larger decreases in women younger than 50 years. These decreases are attributed to both earlier detection and improved treatment. A prior breast cancer initiative demonstrated increased mammography rates correlated with increased incidence of breast cancer and lower stage of the cancer at diagnosis. Analysis of the data suggested utilizing screening mammography and clinical breast exams could save the lives of 210 Kentucky women in one year.

Study Design:

This was an intervention and observational study to detect changes over time. There was no random assignment of subjects to intervention and control groups.

Data from rural Kentucky Appalachian counties in which there were interventions were compared to data from rural Kentucky Appalachian counties with no interventions, to data for all non-Appalachian rural Kentucky counties, and to urban Kentucky counties.

Interventions:

Health Care Excel developed a collaborative based on the Institute for Healthcare Improvement (IHI) Breakthrough Series model involving multiple organizations within the local communities. Health Care Excel provided technical assistance to healthcare practitioners, physician practices, clinics, organizations, and others participating in the Collaborative. Technical assistance included the following: quality indicators and data collection instruments; analysis and feedback of national, state, and county level data; quality improvement strategies and tools; educational materials for practitioners and patients; and facilitated collaboration among practitioners and others to improve care. Interventions were targeted to educate the healthcare practitioners and the Medicare beneficiaries in the 44 rural Appalachian counties. Health Care Excel also formed partnerships that were critical to the success of the project.

Lessons Learned:

- Healthcare providers and others with an interest in healthcare issues in the Kentucky Appalachian region prefer working in small face-to-face meetings.
- The information gained through working with partners that have an intimate knowledge of the community, culture, and healthcare resources of the Kentucky Appalachian region was extremely valuable.

Results:

There was no absolute improvement for the target population; however, there was an observed 0.5 % reduction in the disparity.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	52.6	52.0	-0.5
Reference Population	61.4	60.3	-1.1
Disparity	8.8	8.2	
Reduction in Disparity			0.5

Contact Information:

Telephone: 502.454.5112

Fax: 502.454.5113

1951 Bishop Lane, Suite 300

Louisville, KY 40218



Louisiana

Quality Improvement Organization:	Louisiana Health Care Review, Inc. (LHRC)
Target Population:	African American
Clinical Topic:	Diabetes
Indicator:	Eye Exam

Project Objectives:

To reduce the disparity in the retinal eye examination rate between the African American Medicare diabetic population and the Caucasian Medicare diabetic population.

Background:

According to the American Diabetes Association, diabetes is the fifth deadliest disease in the United States and it has no known cure. The total annual economic impact of diabetes in 2002 was estimated to be \$132 billion, or one out of every 10 healthcare dollars spent in the United States. In Louisiana there exists a significant disparity between the number of diabetic African American and Caucasian beneficiaries who receive a retinal eye exam. According to LHCR's analysis of the Centers for Medicare & Medicaid Services (CMS) data from July 1, 1999 to June 30, 2001, only 59% of African American Medicare diabetics received a retinal eye exam, versus 66% of Caucasian Medicare diabetics.

Study Design:

The project design is a pre-post test design, comparing the baseline and remeasurement rates of the intervention and contrast groups.

Interventions:

LHCR's worked on various interventions to ensure project success. The project's first intervention was the recruitment of African American churches to serve as hosts of a community event where eye exams would be given. Additionally, the congregational approach called for the utilization of the church building and for the pastor to "speak from the pulpit." Information was also printed in church bulletins, and posters. LHCR also coordinated events at neutral community settings where a meal was served to encourage participation. Another intervention was a media campaign consisting of a TV ad and coordinating print ads and brochures. LHCR conducted a personalized mail promotion featuring Chef Leah Chase, a local and nationally renowned chef. This mailing emphasized the importance of getting regular eye exams and included a brochure that reaffirmed the need for diabetes testing and retinal eye exam. In targeting the physicians, LHCR used the Outpatient Rapid Assessment Tool form. This tool was designed to allow patients to participate first hand in the quality of their care and was coupled with prescription pads to facilitate physicians referral to eye doctors. LHCR's staff visited pharmacies face-to-face and left posters and brochures prominently displayed.

Lessons Learned:

- The congregational approach did not produce the expected numbers needed when using a subgroup of the population.
- If invitations were mailed to an event at a particular church, non-members would not necessarily attend opting to wait until the event came to their own church.
- Have a more defined population and more targeted strategies.

Results:

The absolute improvement for the target population was 2.9 percent. The reduction in disparity was 3.7 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	58.8	61.7	2.9
Reference Population	75.5	74.7	-0.8
Disparity	16.7	13.0	
Reduction in Disparity			3.7

Contact Information:

Telephone: 225.926.6353

Fax: 225.923.0957

8591 United Plaza Blvd.

Suite 270

Baton Rouge, LA 70809



Massachusetts

Quality Improvement Organization:	MassPRO
Target Population:	African American
Clinical Topic:	Diabetes
Indicator:	Lipid Profile

Project Objectives:

To minimize the gap in lipid screening between African American Medicare beneficiaries with diabetes (targeted underserved group) living in five Boston-area zip codes, and white, non-dually enrolled Medicare beneficiaries with diabetes living across the entire state (reference group). The baseline rate for African American beneficiaries with diabetes in the five Boston-area zip codes is 67.6%, and for white non-dually enrolled beneficiaries it is 80.1%.

Background:

African Americans have the second highest mortality rate in Massachusetts for diabetes as the underlying cause of death. The age-adjusted rates based on year 2000 data from the Massachusetts Department of Public Health (MDPH), are 43 deaths per 100,000 Hispanic/Latino residents, 36 deaths per 100,000 African American residents, and 19 deaths per 100,000 non-Hispanic white residents. Diabetes-associated lower extremity amputations comprised 73% of all lower extremity amputations performed in Massachusetts. In addition, the incidence of diabetic retinopathy in Massachusetts has increased steadily from 8.5% in 1996, to 10.9% in 1999. In Boston, the diabetes mortality rate was highest for African Americans in all years from 1995-2001 except for one year. In 2001, the mortality rates for diabetes as the underlying cause of death were 42 per 100,000 African Americans, 22 per 100,000 Latinos, and 17 per 100,000 for whites.

Study Design:

MassPRO selected a theoretical framework for this project based on an assessment of the target population, literature review, information from the Underserved Quality Improvement Organization Support Center (UQIOSC), and the success of previous work.

Interventions:

MassPRO focused the intervention on the providers, community, and beneficiaries. MassPRO provided performance data to the medical directors of two large inner city based hospital practices and worked with providers who were implementing electronic health record (EHR). MassPRO encouraged providers to use every visit as an opportunity to identify missing services and worked with diabetes educators and medical directors of community health centers to provide resources that detailed billing for medical nutritional therapy. In another site, MassPRO and the MDPH Diabetes Prevention and Control Program offered assistance in getting a diabetes registry functioning. In reaching the beneficiary, MassPRO worked with the Boston Public Health Commission's REACH Coalition to conduct educational coalition and cluster meetings. The meetings where leadership and empowerment were taught and encouraged were well attended. Local well-recognized speakers presented on health disparities at workshops. MassPRO worked by sharing data with the Health Care Delivery Cluster by participating in their data and evaluation meeting. MassPRO exhibited at community health fairs, community events and lectured on diabetes and cardiovascular disease at various events. In addition, two focus groups were conducted utilizing the Health Care Report Card tool as a guide. MassPRO also partnered with

Project Care and Concern of Dorchester where staff members spoke during the communal meal about diabetes.

Lessons Learned:

- Providing positive feedback to physicians about the improvement in lipid testing made visits with providers more collaborative.
- Healthcare systems adopting an electronic or manual process deliver care and manage chronic disease better than those without.
- African Americans educating other African Americans about diabetes and life style changes were well received.
- Partnering with recognized community agencies improved credibility for MassPRO.

Results:

The absolute improvement for the target population was 17.6 percent. The reduction in disparity was 4.8 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	65.7	83.3	17.6
Reference Population	77.4	90.2	12.8
Disparity	11.7	6.9	
Reduction in Disparity			4.8

Contact Information:
Telephone: 781.890.0011
Fax: 781.487.0083
235 Wyman Street
Waltham, MA 02451-1231



Maryland

Quality Improvement Organization:	Delmarva Foundation
Target Population:	African American
Clinical Topic:	Pneumonia
Indicator:	Pneumococcal (PPV) vaccine-inpatient

Project Objectives:

To increase the pneumococcal vaccination rate of underserved Medicare beneficiaries in Maryland. Specifically, this project focuses on reducing the disparity of inpatient pneumococcal vaccination (PPV) rates between African American and Caucasian Medicare beneficiaries residing in Baltimore City.

Background:

A significant disparity exists between Caucasians and African Americans concerning pneumococcal vaccination. The disparity in vaccination rates and disparity in mortality rates provide an ideal opportunity for improvement in Maryland.

Study Design:

The project was hospital focused and specifically targeted inpatient PPV screening and vaccination rates. The statistical methods measured quarterly PPV screening/vaccination rates during the course of the project for Baltimore City hospitals and Maryland hospitals outside Baltimore. The statistical methodology used point estimates of the rates of PPV screening/vaccination to measure rates and absolute change rates for the target hospitals versus the rest of Maryland.

Interventions:

Each of the interventions was designed to have a synergistic effect in increasing the knowledge of the hospital community and providing the tools needed to implement system change. The interventions aimed to create an environment in which barriers to providing and receiving needed medical services were addressed. Delmarva's intervention efforts focused on four components: 1) taking advantage of public reporting to engage hospital leadership, 2) using credible thought leaders to overcome knowledge barriers among physicians and nurses, 3) providing hospitals with system-based tools (standing orders) and protocols, and 4) using data collection and objective feedback to guide ongoing improvement activities. The most significant accomplishment for Delmarva was the technical assistant provided, face-to-face meeting with hospitals, and a user-friendly data collection tool use at each facility. Other resources Delmarva supplied were Standing Orders, toolkits for hospitals, patient informational brochures and wallet-size immunization cards. Delmarva also provided education for non-Physician Clinical Staff. Delmarva distributed informational brochures to beauty shops and churches in the surrounding communities of each project hospital. Additionally, Delmarva held interactive training sessions using a local champion, informative peer-to-peer meetings and presentations made by Delmarva's Chief Medical Officer.

Lessons Learned:

- Delmarva learned that its intervention strategies were more effective if there is careful planning and timing of its interventions to take into account external environmental drivers and align with them.
- It was essential to have a locally respected practicing physician as champion.
- Using churches and beauty shops was a small part of Delmarva’s interventions, but was well received and created an avenue for building trust in the community.
- The impact of public reporting and senior leadership engagement was substantial and significantly increased the receptiveness of frontline quality improvement staff to training and direct improvement activities.
- Because of small numbers and timeliness of reports, data surveillance used data to track trends in disparities made it difficult to see the short-term impact of interventions. Using the data from the CMS National Warehouse, Delmarva was better able to precisely monitor and evaluate quarterly trends of PPV rates.
- Delmarva learned that establishing trust and credibility with the target hospitals and the communities they serve was important.

Results:

The absolute improvement for the target population was 3.0 percent. There was no reduction in disparity.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	10.6	13.6	3.0
Reference Population	12.8	34.1	21.3
Disparity	2.2	20.5	
Reduction in Disparity			-18.3

Contact Information:
 Telephone: 410.822.0697
 Fax: 410.822.7291
 9240 Centreville Road
 Easton, MD 21601



Maine

Quality Improvement Organization:	Northeast Health Care Quality Foundation
Target Population:	Rural
Clinical Topic:	Heart Failure
Indicator:	LVF assessment

Project Objectives:

To reduce the disparity in the rate of heart failure patients with documentation in the hospital record that left ventricular function (LVF) was assessed before arrival, during hospitalization, or is planned after discharge between the rural hospitals in the six rural hospital intervention group and the Maine urban hospitals.

Background:

Current sources such as the US census and state economic data support findings to indicate that the rural hospitals have demonstrated disparity of LVF versus their urban counterparts. These institutions tend to be small hospitals with less human and financial resources. This translates into less available technology. Additionally, there is little or no access to specialty services, particularly Cardiology, due to the low volume and distant nature of these facilities. Support and administrative resources are also reduced given the cost infrastructure of these facilities. Urban facilities tend to treat patients with higher mean incomes; they have a higher patient flow, more financial capital, better technology and generally have ready access to specialty care. These characteristics of the intervention group indicated the need to work with institutions to increase knowledge and utilization of current standards of care.

Study Design:

Selected rural hospitals in Maine that demonstrated a disparity and had sufficient admissions to represent more than 25 percent of the population. Based on data calculated from past work, NHCQF determined that the disparity between the intervention and reference groups was 14.1 percent.

Interventions:

The selected rural hospitals were recruited to participate in this project. During the recruitment phase, the expectations of the hospitals' commitment to the project as well as NHCQF commitment and support were outlined.

Each hospital was given their baseline data. NHCQF assisted the hospitals with root cause analysis of case failures, which provided valuable information to identify areas for improvement. NHCQF also supported the hospitals in developing their individual hospital action plans for system changes. Best practice models were shared with the group. Interim data was abstracted, tracked, analyzed and disseminated to assess the effectiveness of the action plans. Action plans were amended as necessary. NHCQF staff was available to each institution for individual and group consultation and on site visits with quality, medical and administrative staff to facilitate necessary internal changes to produce improvement.

Lessons Learned:

- The staff working with the process to be implemented were as important as the people who could mandate change.
- Realistic process goals, timelines and open lines of communications enabled a more cohesive team working together and accomplishing the same goal.
- A letter to the hospital Chief Executive Officer before and after each meeting allowed for better planning and attendance for key personnel of meetings. It also was an important element in being able to monitor progress and holding staff accountable.
- Some hospitals responded better to sharing of data and found it useful when their own data alone wasn't enough to create a reaction.
- Collaboration with each state's hospital association on a quarterly basis during which all hospitals were present provided rural hospitals an opportunity to hear what both urban and rural hospitals were working on and learn from their peers.
- Process analysis was well received and Quality Improvement staff were appreciative of the opportunity for their hospital to hear about the issues and learn about the measures from an outside, independent source.
- Utilizing a "one size fits all approach" did not work. Customizing the processes were needed to meet the specific needs of each facility.
- Becoming complacent with a successful organization and "assuming" they would continue to be successful based on previous outcomes is not an efficient assumption.

Results:

The absolute improvement for the target population was 16.1 percent. Northeast Health Care Quality Foundation reduced the disparity by 7.6 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	64.9	81.0	16.1
Reference Population	80.4	88.9	8.5
Disparity	15.5	7.9	
Reduction in Disparity		81.0	7.6

Contact Information:

Telephone: 603.749.1641
 Fax: 603.749.1195
 15 Old Rollinsford Rd.
 Suite 302
 Dover, NH 03820



Michigan

Quality Improvement Organization:	Michigan's Medicare QIO (MPRO)
Target Population:	African American
Clinical Topic:	Diabetes
Indicator:	Lipid Profile

Project Objectives:

To reduce health disparities among 25% of Michigan's African American Medicare beneficiaries with diabetes by increasing diabetes health indicator rates by demonstrating an improvement in the cultural competency of outpatient physicians and their clinical staff.

Background:

Data on the ethnicity of physicians in Michigan from the American Medical Association (AMA) identified that 92 percent of all physicians in Michigan are either Caucasians (74%) or Asian Pacific Islanders (18%), while only 5 percent are identified as African Americans. Michigan 2000 Census data identified residents in the state by ethnicity as Caucasians (80%), Asian Pacific Islanders (2%), African Americans (14%), Hispanics (3%) and Native-Americans (not statistically significant). This ethnic disparity between patients and physicians may affect the quality and effectiveness of patient/provider communication. Additionally, Michigan reflects the nation in the epidemic proliferation of diabetes and the identified link between the health status and the economic viability of the state.

Study Design:

The study design was comprised of comparisons and evaluations that used an intervention group, a reference group, and a control/contrast group. The intervention group was the 25% of all Michigan African American diabetic beneficiaries located in Genesee, Oakland and Wayne counties. The reference group was the Caucasian non-dually enrolled diabetic beneficiaries in same counties. The control/contrast group was the African American diabetic beneficiaries not residing in Genesee, Oakland and Wayne counties.

Interventions:

MPROs' *Enhancing Traditional Health Outreach Strategies* (ETHOS) project included many interventions including the ETHOS Pillar Award Program a public recognition program that formally acknowledges health systems and community champions. MPRO also distributed a health literacy toolkit, published staff and patient education materials, and held a continuing medical education (CME) presentation for physicians and clinical staff. MPRO used quality improvement tools, MedQIC, provider-level Medicare claims data reports, face-to-face quality improvement consultation, educational conference calls and various communications such as e-mail updates and newsletters. Additionally, MPRO led cultural competency and health literacy training for providers.

Lessons Learned:

- Provide sufficient time to complete developmental work before designing a project.
- Recognize that health systems are businesses and therefore, they do not function by altruist principles. The organization must develop appropriate marketing strategies to engage key decision makers that include a business case.
- Build time for the establishment of partnerships and collaborations.
- Hire qualified staff with expertise in cultural competency, healthcare quality improvement, sales and marketing. Having a multidisciplinary team provides a pool of diverse skill sets that are available to accomplish the various tasks and challenges that are presented.
- Redundancy does not breed innovation. Collaborators seek partners that will assist them in reaching their goals.
- Preparation, presentation and delivery skills are essential. Be flexible and quick to modify a plan, which always produces positive results. Take the time to talk to participants at events and work unconventional work hours when necessary.
- Be passionate about your project. Providers stated that they were encouraged to participate in the project to some degree because of the passion demonstrated in the presentation.
- Be bold in a top down approach. Time wasted in communicating with the wrong individuals could result in missed opportunities. Presenting the business case for the project captured the ear of executive leadership and established credibility.

Results:

The absolute improvement for the target population was 16.9 percent. The reduction in disparity was 8.8 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	69.2	86.1	16.9
Reference Population	84.2	92.3	8.1
Disparity	15.0	6.2	
Reduction in Disparity			8.8

Contact Information:

Telephone: 248.465.7300
 Fax: 248.465.7428
 22670 Haggerty Road,
 Suite 100
 Farmington Hills, MI 48355-2611



Minnesota

Quality Improvement Organization:	Stratis Health
Target Population:	African American
Clinical Topic:	Diabetes
Indicator:	Lipid Profile

Project Objectives:

To decrease the disparity in diabetes care as it relates to lipid profile screening between African American Medicare beneficiaries and White, non-dually enrolled, Medicare beneficiaries with diabetes in Ramsey and Hennepin counties of Minnesota.

Background:

African Americans, the largest minority population in the state of Minnesota, are at high risk for developing diabetes and cardiovascular disease. Along with this high risk, data has shown that there are large disparities in lipid testing rates between African American Medicare beneficiaries with diabetes and White, non-dually enrolled Medicare beneficiaries with diabetes.

Study Design:

For a study design, Stratis Health chose to use the Logic Model to guide in the assessment, development, implementation, and evaluation of the diabetes initiative. This model helped specify how a set of interventions were linked to results from initial and interim outcomes, observable relatively early in the process, to intermediate and long term goals which may not happen for years. It also required stakeholders to work together to build consensus on long-term goals and the activities and processes that lead to these goals. Through this process, gaps in knowledge around diabetes, expected outcomes, and tentative assumptions were explored and changed before the final outcome was measured.

Interventions:

Interventions included academic detailing with key physicians and clinics, Learning and Sharing sessions held with clinics with the highest volume of African American patients, community members and organizations shared successes, barriers, and opportunities related to diabetes and cardiovascular disease in the African American community. Stratis contacted physicians that had seen more than 10 African American Medicare beneficiaries with diabetes within the previous two years. Another intervention consisted of a mailing to physicians and clinic managers in a collaborative effort with the Minnesota Association of Black Physicians. Additionally, Stratis created and placed advertisements in community newspapers at various times of the year with accompanying articles written by prominent members of the African American healthcare community. Traveling displays, posters and bookmarks were created, approved, and distributed at Learning and Sharing sessions, churches, libraries, barber shops, beauty shops, braiding salons, laundry mats, grocery stores, cafes, community centers, senior high rises, and other locations throughout the targeted zip code areas of Minneapolis and St. Paul. A “Speakers Bureau” was created and included an African American physician, nutritionist, exercise/fitness instructor and diabetes educator. Stratis Health participated in and/or sponsored several festivals, fairs, conferences, Senior wellness events, exhibits and local traditional African American celebrations such as Juneteenth. Several community members manned the booths at the festivals and fairs. Additional interventions included articles in local publication and seasonal ‘Stakeholders Update’ newsletters.

Lessons Learned:

- Time is needed to build a strong collaborative partnership and develop solid intervention approaches.
- The project could not effectively address the importance of lipid testing until there was a clear understanding of what diabetes was in the affected communities.
- It was essential to enter into the community as soon as possible and have the community involved in the planning.
- It is also important to meet with both community leaders, organizations and community members, and let the community set the tone for and embrace the project.

Results:

The absolute improvement for the target population was 14.1 percent. The reduction in disparity was 4.6 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	52.4	66.5	14.1
Reference Population	78.1	87.7	9.5
Disparity	25.8	21.2	
Reduction in Disparity			4.6

Contact Information:

Telephone: 952.854.3306

Fax: 952.853.8503

2901 Metro Drive

Suite 400

Bloomington, MN 55452



Missouri

Quality Improvement Organization:	Primaris
Target Population:	African American
Clinical Topic:	Immunization
Indicator:	Influenza (Flu) Vaccine

Project Objectives:

To reduce the influenza immunization disparity among African American Medicare beneficiaries living in the St. Louis, Missouri metropolitan area by increasing awareness of vaccine-preventable diseases and increasing immunization rates for the population.

Background:

According to the Missouri Department of Health and Senior Services (DHSS), influenza and pneumonia together are the sixth leading cause of death in Missouri. Preventing flu and pneumonia through the use of immunizations is a major component in the care of older populations. Trends from different data sources indicate that immunization rates are gradually increasing over time for Missourians over age 65. However, there is also a persistent flu immunization rate disparity in the African American community.

Study Design:

Project impact was evaluated using a non-experimental pre-post study design. The evaluation consisted of determining flu immunization rates at distinct points over the intervention period for the target, comparison and reference groups. Using two different data sources, the disparity between the target and the key reference group was calculated to determine accomplishment of the immediate project objective.

Interventions:

The interventions implemented during this contract period focused on three strategies that were tailored to the target audience and community. The first strategy focused on the community and its leadership and its interventions included an immunization hotline; a data collection tool; an educational campaign; cable TV time and press releases. Primaris worked with the Faith-based community, the community health educator program and hired a Local Project Coordinator (LPC). Primaris also trained seniors who resided within specific neighborhoods or communities to conduct community awareness presentations. Primaris also established a community task force and maintained relationships with providers and community based organizations in the target area. The second strategy provided beneficiary education and built public awareness; developed and implemented community health education programs; designed and implemented a reminder/recall campaign; created and used culturally competent public education materials and lastly, developed and implemented a media campaign. The last strategy was to improve access to immunizations and to create awareness among physician offices. Primaris developed and promoted a telephone hotline that allowed individuals to locate clinics in their neighborhood and provided access for managed care patients at walk-up flu clinics.

Lessons Learned:

- It was evident that hearing the message from known and trusted seniors was key to project acceptance.
- Hire the LPC at least three months before the beginning of the flu season.
- Work with people who believe the flu immunization is important and are willing to get a flu shot themselves.
- If a presentation is made during the season, hold it in conjunction with a local flu shot clinic, as guests wanted or expected a shot to be available at the educational event.
- It is important to design the reminders to be culturally relevant and appropriate for the target audience and ensure providers are culturally competent.
- Use focus groups to test materials before they are produced and distributed.
- Consider printing the flu clinic schedules in a separate document rather than within the brochures and other materials. This allows the materials to be used even if the flu clinics are cancelled.
- Television advertising was more cost effective than previously anticipated.
- Reasoning, convincing, and persuading customers is as important as informing them.
- Some flu shot locations were inappropriate and some presented barriers to the elderly such as steep access to mobile vans.
- Technology such as Touch Map is worth the initial investment and an important ingredient in creating a successful hotline.
- Mailings must be simple and attractive.

Results:

The absolute improvement for the target population was six percent. The reduction in disparity was 0.3 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	22.6	28.6	6
Reference Population	47.7	53.4	5.7
Disparity	25.1	24.8	
Reduction in Disparity			0.3

Contact Information:
 Telephone: 573.817.8300
 Fax: 573.817.8330
 200 North Keene Street
 Columbia, MO 65201



Mississippi

Quality Improvement Organization:	Information and Quality Healthcare (IQH)
Target Population:	African American
Clinical Topic:	Breast Cancer
Indicator:	Mammography

Project Objectives:

To increase the number of African American female Medicare women age 52 - 69 receiving regular screening mammograms and reduce the difference in mammography rates between African American women and all other female Medicare beneficiaries in Mississippi. In order to accomplish this, IQH worked to promote the use of system interventions such as chart reminders, tracking software, and standing orders for mammography referral among providers. IQH also worked to encourage providers to ensure that all women are referred for screening mammograms and that patient encounters are not missed opportunities for preventive healthcare.

Background:

In Mississippi, mammography rates for African American women and Caucasian women in the measurement age group of 52 to 69 showed a disparity of 11.17 percent. In the intervention target counties mammography rates showed a disparity of 16.17 percent. Based on these statistics, IQH chose to continue efforts with African American women as the target population for improvement in the biennial mammography rates measured by Medicare.

Study Design:

The study design consisted of a pre/post evaluation of the reduction in disparity in mammography rates between African American women and all other beneficiaries in the targeted counties and the degree of increase in mammography rates between baseline and remeasurement data.

Interventions:

The interventions utilized for this project consisted of a variety of tools to promote and increase the awareness of mammography utilization for the African American Medicare beneficiaries and providers. The interventions consisted of a multi-layered approach and were derived from various sources including intensive focus groups with beneficiaries and providers. To target the providers, IQH developed a Provider Manual and other materials for distribution, completed providers on-site visits to recruit and educate providers, and participated in presentations, exhibits and community programs to educate providers and beneficiaries at provider-sponsored events. IQH developed partnerships to promote and coordinate outreach strategies as well as disseminate culturally sensitive materials. The COMMAND tracking software, developed by IQH was introduced to key partners for cancer control in the state.

To target the beneficiary, IQH developed a toolkit for working with community leaders and African American volunteers to use in community programs. IQH also developed a healthcare training module for "My Sister's Keeper," a community group providing education with a goal to eradicate breast cancer in the target area. IQH worked with another group of community volunteers, the Community Advisor Research Partner (CHARP) through the Deep South Network for Cancer Control, to persist in delivering the message to the target group. Media was also used to increase awareness of the underserved project. Radio and newspaper ads were used to promote a three-month pilot project for extending mammography service hours. Advertisements were placed in the largest newspaper in the state as well as in the local newspapers in the participating

counties. Additionally, two minority-owned newspapers were utilized for ads to reach the targeted population. IQH also purchased ads from organizations with screening mammography messages and offers for free assistance to providers. Project information and materials were shared through: articles in the Mississippi State Medical Association Journal, and articles in the IQH Quality Matters newsletter.

Lessons Learned:

- Getting to know the provider and staff personally resulted in better buy-in and improved participation.
- Developing and distributing culturally sensitive educational materials led to more positive experience for providers, partners, and community volunteers.
- Evaluations from educational programs revealed that the programs were instrumental in promoting screening mammography.
- Education of African American women not only increases visits to physicians, but an informed patient will prompt physician referral for screening mammography resulting in early detection and improved outcome.
- Incentives and giveaways were effective in providing reminders and reinforced the importance of mammography screening. The presence of incentives also attracted more individuals to the exhibit booth and allowed teaching opportunities.

Results:

The absolute improvement for the target population was 4.2 percent. IQH reduced the disparity by 5.0 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	45.0	49.1	4.2
Reference Population	63.9	63.0	-0.9
Disparity	18.9	13.9	
Reduction in Disparity			5.0

Contact Information:
 Telephone: 601.957.1575
 Fax: 601.956.1713
 385 Highland Colony Parkway
 Suite 120
 Ridgeland, MS 37159-6035



Montana

Quality Improvement Organization:	Mountain-Pacific Quality Health Foundation
Target Population:	Rural
Clinical Topic:	Pneumonia
Indicator:	Pneumococcal vaccine -inpatient

Project Objectives:

To reduce the number of missed opportunities for pneumococcal immunization in eligible persons hospitalized for pneumonia at critical access hospitals (CAHs). This objective was to be accomplished by increasing the number of patients screened for and receiving pneumococcal at CAHS. There were 34 small and rural hospitals considered to be CAHs.

Background:

Despite widely disseminated guidelines for use, pneumococcal vaccine remains underutilized. The Centers for Medicare & Medicaid Services (CMS) reported that approximately 50% of elderly and high-risk patients in the United States have not been immunized against pneumococcal disease. Because these 34 CAHs that existed at the time of the project writing showed a disparity compared to non-CAH rural hospitals, these were chosen as the target group. There is growing evidence that individuals who are hospitalized and express intent of getting vaccinations after discharge from the hospital seldom actually follow through. The immunization of susceptible patients in the hospital is of high priority.

Study Design:

The design for assessing impact was a simple numeric comparison of change between the baseline and remeasurement in the subpopulations.

Interventions:

The Mountain-Pacific Quality Health Foundation believed that a multi-faceted approach to interventions is most effective. Interventions included broad educational programs outlining the importance and efficacy of implementing inpatient immunization standing orders, arranging for peer-to-peer physician and Quality Improvement professional learning and one-on-one technical assistance as appropriate. The interventions also included evidence-based literature to support inpatient immunizations, presentations and webex meetings with an expert panel, mail out of the Influenza & Pneumococcal Immunization Handbook and the development of partnerships. The Mountain-Pacific Quality Health Foundation arranged participation in a conference call with an infectious disease physician and individual CAH medical staff. The Mountain-Pacific Quality Health Foundation also included the pneumococcal immunization measure as a qualifying criterion for the annual Hospital Quality Award. The Mountain-Pacific Quality Health Foundation also conducted site visits, performed data collection and spreadsheet run charts, plus promoted implementation of CART software at almost every opportunity.

Lessons Learned:

- Having outside experts led to credibility of the project.
- Incentives positively influence the outcome of the intervention. In one case, a hospital Chief Executive Officer wanted a Hospital Quality Award as a positive promotional opportunity for his hospital.
- There needs to be a process in place that includes timely follow up to address hospitals that have standing orders in place that were not always followed.

Results:

The absolute improvement for the target population was 25.5 percent. The reduction in disparity was 2.2 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	6.9	32.4	25.5
Reference Population	14.2	37.5	23.3
Disparity	7.3	5.1	
Reduction in Disparity			2.2

Contact Information:

Telephone: 406.443.4020

Fax: 406.443.4585

3404 Cooney Drive

Helena, MT 59602



North Carolina

Quality Improvement Organization:	Medical Review of North Carolina (MRNC)
Target Population:	African American
Clinical Topic:	Diabetes
Indicator:	Lipid Profile

Project Objectives:

To reduce the disparity in lipid profile testing between African Americans (underserved group) and Caucasians (reference group) residing in eastern and central regions of North Carolina by increasing lipid profile testing of African Americans.

Background:

Diabetes is a common condition among North Carolina Medicare beneficiaries. There are a number of factors that influence the care for diabetes, and oftentimes, these factors are associated with race. A marked disparity exists in the North Carolina African American population.

Study Design:

The project was implemented as three separate studies with overlapping beneficiary populations. First, the *beneficiary-level randomized controlled experiment*, including the targeted underserved population. Eventually, the target group received at least one mailing, but mailings occurred in different time frames for everyone in the two mailing groups, allowing one group to serve as a control group in a randomized experiment during the first period of mailings. In the second *provider-level pre-post intervention design*, interventions were evaluated by comparing changes in lipid testing rates and disparities for Caucasian and African American patients before, during, and after project interventions. Thirdly, a *quasi-experimental, non-equivalent group design* involved a non-randomized control group that is non-equivalent to the intervention group in several important ways.

Interventions:

Interventions were implemented at the provider and beneficiary level and were intended to address different barriers/root causes of disparity. Direct mail intervention materials were either developed internally by MRNC or by its collaborators. As part of the provider-level interventions, MRNC worked with the North Carolina Diabetes Collaborative and the North Carolina Diabetes Prevention and Control Program and the North Carolina Community Health Center Association. MRNC worked with the North Carolina Diabetes Collaborative (NCDC) and assisted with the installation of electronic disease registry. Three formal learning sessions and one outcomes congress were conducted to educate the practices on the use of the Quality Improvement Model, the Chronic Care Model and other pertinent clinical topics. Additionally, monthly conference calls were held to support the teams and to encourage continuous involvement between the sessions. Monthly data reports were generated from the electronic disease registries by the practice teams and sent in an aggregated format to the director of the NCDC for review. In focusing on the provider population, MRNC mailed providers materials that included a letter and detailed the problem of racial disparities. MRNC also conducted a continuing medical education (CME) teleconference describing how disparities might be addressed by improving practice-based systems that deliver improved care to all patients. MRNC also relied heavily on its associations and partnerships with several key organizations that provided support and resources including the North Carolina Community Health Center Association and the North Carolina Office of Minority Health.

Lessons Learned:

- Direct mail interventions involving educational materials have little or no effect on increasing lipid testing rates among African Americans with diabetes.
- Interventions targeting providers, especially intensive collaborative efforts, system changes and implementation of electronic health systems, can achieve substantial improvements in care for the underserved and reference groups.
- Provider-level system change may be less effective for the underserved group which may paradoxically lead to increased disparities as care improves for all.

Results:

The absolute improvement for the target population was 12.6 percent. The reduction in disparity was 5.6 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	67.7	80.4	12.6
Reference Population	81.2	88.3	7.0
Disparity	13.5	7.9	
Reduction in Disparity			5.6

Contact Information:

Telephone: 919.380.9860

Fax: 919.380.7637

100 Regency Forest Drive

Suite 200

Cary, NC 27511



North Dakota

Quality Improvement Organization:	North Dakota Health Care Review, Inc.
Target Population:	Rural
Clinical Topic:	Heart Failure
Indicator:	LVF assessment

Project Objectives:

To reduce the disparity rate of LVF assessment for Medicare beneficiaries admitted with a primary diagnosis of heart failure in North Dakota's (ND) rural hospitals.

Background:

According to the American Heart Association, nearly 5 million people in the United States have heart failure, and nearly one-half million additional individuals are newly diagnosed with heart failure annually. The guidelines published by the American Heart Association and the American College of Cardiology state that measurement of left ventricular performance is a critical step in the evaluation and management of patients with suspected heart failure. Despite the recommended guidelines, LVF assessment is underutilized. Although the state rate for this measure was 50.3 percent at baseline, the average rate for ND's urban hospitals was 75.2 percent. The average performance in rural hospitals was 32.5 percent at baseline, reflecting a disparity of 42.7 percent for this quality measure.

Study Design:

The project design is a pre/post intervention. The baseline rate was determined from the sample of rural heart failure discharges for Medicare beneficiaries used by CMS to establish ND's baseline for this quality measure. Remeasurement rates for this project were calculated using data provided by CMS.

Interventions:

To heighten awareness of the rural/urban disparity in the project measure and to draw attention to the apparent causes for the disparity, North Dakota Health Care Review, Inc. (NDHCRI) published a two-page "white paper" that was mailed to all rural physicians and middle level practitioners. The NDHCRI Task project team developed and distributed sample heart failure standing orders and LVF assessment stickers to encourage hospitals to improve documentation of LVF assessment in the inpatient medical record. Following dissemination of the tools, NDHCRI staff conducted multiple on-site visits and phone calls with rural hospitals to discuss implementation of the tools, obtain status reports, and shared lessons learned and solutions to barriers. In addition, NDHCRI hosted a series of conference calls for rural hospitals that provided education on the quality measure, and facilitated sharing of barriers, lessons learned, and best practices by participating hospitals. NDHCRI also sponsored a statewide inpatient collaborative that focused specifically on improving processes associated with heart failure management. In addition, NDHCRI sponsored a webinar for providers that featured Marvin A. Konstam, M.D., President of the Heart Failure Society of America.

Lessons Learned:

- Physicians viewed the LVF assessment measure as a documentation issue, not a clinical issue that could be linked to better patient outcomes.
- It was difficult to evaluate the impact of the interventions that this project had on LVF assessment rates in rural hospitals due to other simultaneous interventions in place addressing other clinical topics.

Results:

The absolute improvement for the target population was 27.2 percent. The reduction in disparity was 18.9 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	32.5	59.7	27.2
Reference Population	75.2	83.6	8.3
Disparity	42.7	23.9	
Reduction in Disparity			18.9

Contact Information:

Telephone: 701.852.4231

Fax: 701.838.6009

800 31st Avenue, SW

Minot, ND 58701



Nebraska

Quality Improvement Organization:	CIMRO of Nebraska
Target Population:	Rural
Clinical Topic:	Pneumonia
Indicator:	Antibiotic Selection

Project Objectives:

To decrease the rural disparity in appropriate initial antibiotic selection given within 24 hours of hospitalization in patients with community-acquired pneumonia by identifying and addressing the factors unique to rural healthcare.

Background:

At the beginning of the project, statistics from the U.S. Census Bureau and the Nebraska Health and Human Services death index indicated that the death rate for pneumonia was 19 per 100,000 in the urban areas of Nebraska, and 28 per 100,000 in the rural areas of Nebraska.

Study Design:

The study design is a pre/post comparison. The intervention group for this project included all beneficiaries in the area designated as rural by the Office of Management and Budget (OMB). The reference group included beneficiaries residing in urban counties in Nebraska who received inpatient care for community-acquired pneumonia during the remeasurement timeframe. The comparison population was the national group, aggregated by the Underserved Quality Improvement Organization Support Center (UQIOSC). The target population was patients admitted with community-acquired pneumonia in rural hospitals. The data were collected by means of chart abstraction that included patient demographics, risk classification, medication, patient medical history, symptoms, laboratory values, diagnostic testing, vaccine information and discharge variables. All rural beneficiaries meeting denominator specifications were included in baseline and the evaluation sets. The Centers for Medicare & Medicaid Services (CMS) data were utilized for evaluation.

Interventions:

CIMRO of Nebraska worked to implement various interventions during the project. The staff provided site performance feedback, presented guideline information and supporting literature at offices and trade shows, contributed articles to the Cornhusker Family Physician publication and Nebraska Medical Association newsletter and distributed pocket reminder and posters. CIMRO organized regional standing orders with rural Quality Improvement/nursing staff and worked with medical/nursing to perform on-site consultation, teleconferences, as well as training. CIMRO also worked with local and regional resources and experts for state-wide meetings.

Lessons Learned:

- Teleconferences were not as well attended as anticipated, perhaps due to the recent culture change of drug companies paying physicians for attending teleconferences.

Results:

The absolute improvement for the target population was 21.8 percent. The reduction in disparity was 9.4 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	56.6	78.3	21.8
Reference Population	70.4	82.8	12.4
Disparity	13.8	4.4	
Reduction in Disparity			9.4

Contact Information:

Telephone: 402.476.1399

Fax: 402.476.1335

1230 O Street, Suite 120

Lincoln, NE 68508



New Hampshire

Quality Improvement Organization:	Northeast Health Care Quality Foundation
Target Population:	Rural
Clinical Topic:	Heart Failure
Indicator:	LVF assessment

Project Objectives:

To decrease the disparity in the performance of LVF assessment in the selected hospitals in New Hampshire that demonstrated a disparity and had sufficient admissions to represent more than 25% of the population in question.

Background:

The intervention group is comprised of four rural hospitals in New Hampshire that demonstrated a disparity with the urban institutions in the state. There is little or no access to specialty services, particularly Cardiology, due to the low volume and distant nature of these facilities. The support and administrative resources are also scarce. NHCQF worked with institutions to increase knowledge and use of current standards of care.

Study Design:

The study design was to analyze hospitals and select rural hospitals in New Hampshire that demonstrated a disparity and had sufficient admissions to represent more than 25 percent of the population. Based on data calculated from past work, the disparity between the intervention and reference groups is 7.4 percent. During the recruitment phase, the expectations were outlined and commitment and support was established.

Interventions:

As part of the interventions design phase, NHCQF assisted the hospitals with root cause analysis of case failures, which provided valuable information to identify areas for improvement. Later, NHCQF supported the hospitals in developing individual hospital action plans for system changes and best practice models were shared and action plans implemented. Interim data was abstracted, tracked, analyzed and disseminated to assess the effectiveness of the action plans. Action plans were amended as necessary. NHCQF staff was available to each institution for individual and group consultation and on site visits with quality, medical and administrative staff to facilitate necessary internal changes to produce improvement. NHCQF also worked with hospitals about the effects of LVF assessment on patient care, discussed access to Echocardiographic services after discharge.

Lessons Learned:

- The staff working with the process to be implemented were as important as the people who could mandate change.
- Have realistic process goals, timelines and open lines of communication enabled a more cohesive team working together to accomplish the same goal.
- Letter to hospital Chief Executive Officer before and after each meeting allowed for better planning and attendance of key personnel at meetings. Another important element was being able to monitor progress and holding the staff accountable.
- Collaboration with each state's hospital association on a quarterly basis during which all hospitals were present provided rural hospitals an opportunity to hear what both urban and rural hospitals were working on to learn from their peers.
- Utilizing a "one size fits all approach" didn't work. Customizing the processes when needed to meet the specific needs of each facility.
- Becoming complacent with a successful organization and "assuming" they would continue to succeed based on previous outcomes is not an efficient assumption.
- Some facilities responded better to benchmark data and found it useful when their own data alone wasn't enough to create a reaction. On return visits less time was spent on data abstraction and more on process assessment and improvement.
- Process analysis was well received and Quality Improvement staff were appreciative of the opportunity for their hospital to hear about the issues and learn about the measures from an outside, independent source.

Results:

The absolute improvement for the target population was 1.7 percent. There was no reduction in disparity.

Table 1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	81.4	83.1	1.7
Reference Population	84.4	90.6	6.2
Disparity	3.0	7.5	
Reduction in Disparity			-4.5

Contact Information:
 Telephone: 603.749.1641
 Fax: 603.749.1195
 15 Old Rollinsford Rd.
 Suite 302
 Dover, NH 03820



New Jersey

Quality Improvement Organization:	Healthcare Quality Strategies, Inc. (HQSI) formerly PRONJ
Target Population:	African American
Clinical Topic:	Diabetes
Indicator:	HbA1c

Project Objectives:

To reduce the disparity in annual HbA1c test utilization rates between diabetic African American and Caucasian Medicare Fee-for-Service (FFS) beneficiaries. The long-term goal of the project is to reduce the morbidity associated with diabetes among African American diabetics with Medicare in Essex and Atlantic Counties in New Jersey. The expectation is that targeted improvements in the processes of care will lead to improvements in the outcomes of care.

Background:

Literature defines diabetes as widespread and expensive in terms of healthcare costs, with late diagnosis often yielding complications that require hospitalization. Prevalence studies show a doubling of diagnosed diabetes rates in African Americans compared to Caucasians. Rates are particularly high among older African Americans who lack a primary care provider and a regular source of care. Lower socioeconomic status is involved with underutilization of preventive services, as is providers' lack of awareness with Medicare-covered diabetes services.

Study Design:

For a study design, HQSI analyzed HbA1c claims data from CMS, released on January 31, 2003. Analysis showed that Atlantic and Essex Counties had low testing rates compared to other counties in the state. HbA1c is the only test specific for diabetes and requires direct physician intervention. The HbA1c quality indicator was the only indicator targeted by HQSI interventions. The project had a pre-and post-test design with interventions directed at both physicians and Medicare beneficiaries with diabetes in Essex and Atlantic Counties.

Interventions:

HQSI utilized many types of interventions to achieve the objectives for this project and focused on targeting the physician and the beneficiaries. The principle underlying HQSI's interventions was that targeting improvements in processes of care (care systems) should improve the outcomes of care. Telephone/one-on-one contact was made to reinforce project goals and remind the physician offices of educational materials that were available free-of-charge. A toolkit, entitled *Diabetes Materials for African Americans*, was created and contained office system and beneficiary educational materials. It included preventive flow sheets, referral logs, chart stickers, appointment cards, wallet cards, an information sheet about Medicare-covered services, diabetes fact sheets, culturally appropriate brochures for patients with diabetes, and other materials. There was also an outreach effort using direct mailing to physicians.

Interventions targeting the beneficiary included mailings supporting the message distributed to the physicians. Public relations campaign and advertising campaign were conducted. HQSI structured an intervention that tested the impact of interactive speech-enabled reminder telephone calls as a delivery method for health promotion messages.

Lessons Learned:

- Time is needed to build strong collaborative partnerships and develop solid intervention approaches.
- Formal training of team members and internal quality control are essential components for obtaining useful and valid information from office assessments.
- Physician mailings received greater response when they were sent certified mail and were signed by HQSI's Chief Executive Officer.
- Individual physician profiles were found to be more important to physicians and served as a better tool for obtaining a face-to-face appointment than project reports.
- Multiple and frequent contacts with highly specific messages were necessary to get attention and engage the physicians in change.

Results:

The absolute improvement for the target population was 11.1 percent. The reduction in disparity was 1.5 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	57.1	68.2	11.1
Reference Population	68.9	78.4	9.5
Disparity	11.7	10.2	
Reduction in Disparity			1.5

Contact Information:

Telephone: 732.238.5570
 Fax: 732.238.7766
 557 Cranbury Road
 Suite 21
 East Brunswick, NJ 08816



New Mexico

Quality Improvement Organization:	New Mexico Medical Review Association
Target Population:	Hispanic
Clinical Topic:	Immunization
Indicator:	Pneumococcal (PPV) Vaccinations

Project Objectives:

To increase pneumococcal vaccination rates for Hispanic Medicare beneficiaries in the five-county targeted area. A secondary objective was to reinforce the importance of influenza vaccination in the same population and geographic region.

Background:

In the five county target area, the baseline measurement of pneumococcal vaccination rate among Hispanic Medicare beneficiaries in managed care organizations (MCOs) was 71.1 percent. At the same time, the rate for white MCO beneficiaries was 79.6 percent (a disparity of 8.5 percent), and the rate for white non-Hispanic beneficiaries was 81.3 percent (a disparity of 10.2 percent). The disparity among beneficiaries of fee-for-service (FFS), or traditional Medicare, in the same area was even greater. The pneumococcal vaccination rate for Hispanic FFS beneficiaries in the targeted area was only 48.4 percent, while the pneumococcal vaccination rate for white FFS beneficiaries in the target area was 71.7 percent (a disparity of 23.3 percent), and 76.1 percent for white non-Hispanics (a disparity of 27.7 percent).

Study Design:

New Mexico Medical Review Association (NMMRA), through formative research methodology, conducted a pre assessment of the ethnicity differences among the Hispanics in New Mexico and determined there were significant differences among this targeted group.

Interventions:

A multi-faceted approach to intervention was developed to increase the awareness within the senior Hispanic population on the benefits of pneumococcal vaccination. The intervention included the publication of the pneumococcal vaccination revista (magazine), a modest print campaign and a fairly aggressive radio campaign. The revista was a key intervention that included culturally appropriate material written in Spanish and English. The pneumococcal vaccination revista involved substantial formative research regarding target audiences and the text was written carefully to reach a low-literacy audience. The print advertisements were purchased in *Imagen*, a magazine-style publication that is based in the Albuquerque area and is focused specifically on Hispanics. Copies are distributed at no charge through newsstands, community centers, senior centers, hospitals, healthcare clinics and key advertisers. Publishers estimate that each copy reaches 4.2 readers. NMMRA also launched an extensive radio advertising campaign designed to reach Hispanic Medicare beneficiaries with messages promoting pneumococcal vaccinations.

Many of the interventions took place at senior centers, Catholic churches, and health fairs and were facilitated by Spanish-speaking NMMRA staff or promotoras (peer-counselors). Senior centers located in zip codes identified with a significant Hispanic Medicare beneficiary population were targeted to receive the intervention. The Catholic churches targeted were selected based on the age and ethnicity determinants in the demographic reports. Although the interventions mostly targeted beneficiaries, NMMRA also developed other tools to target providers. These tools were distributed to physician offices in the five-county focus area and

included one-page fact sheets, patient chart reminder flags/Post-it® notes, posters, and patient vaccination tracking cards. In most cases, these materials were printed in both English and Spanish.

Lessons Learned:

- The culturally appropriate bilingual revista on pneumococcal vaccination was widely read since it reached a multigenerational audience. The beneficiary tended to read the publication in Spanish, while their children and/or grandchildren commonly read it in English.
- NMMRA learned to rely on the community as a dependable source for conducting the interventions.
- In interacting with a national advertising agency based in Albuquerque, it was reinforced that radio is the most effective advertising tool to reach Hispanics in the Southwest.
- In order to have a successful promotora program there needs to be a supportive infrastructure for administration, structure, continuous funding and training. Most important of all, there must be a process and outcome evaluation in place for continuous quality improvement of the program.

Results:

The absolute improvement for the target population was 2.9 percent. The reduction in disparity was 6.6 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	54.1	56.9	2.9
Reference Population	77.3	73.6	-3.8
Disparity	23.2	16.6	
Reduction in Disparity			6.6

Contact Information:

Telephone: 505.998.9898
 Fax: 505.998.9899
 5801 Osuna Road NE, Suite 200
 Albuquerque, NM 87109-2587



New York

Quality Improvement Organization:	IPRO
Target Population:	African American
Clinical Topic:	Diabetes
Indicator:	Lipid Profile

Project Objectives:

To reduce the disparity in the rate of biennial lipid profiles between African American and White beneficiaries with diabetes in selected counties in New York City (NYC) by increasing the proportion of African American beneficiaries with diabetes receiving a lipid profile at least once every 2 years.

Background:

According to the 1995-1999 New York State (NYS) Behavioral Risk Factor Surveillance System (BRFSS), diabetes was the sixth leading cause of death in the state of New York with African Americans ages 65 and older having the highest prevalence of diabetes at 20.8%. African Americans also had the highest rates of hospitalization discharges due to diabetes compared to whites and Hispanics among those less than 65 years of age. Mortality rates due to diabetes among African Americans were highest compared to Hispanics and whites for all age groups.

Study Design:

The study design was quasi-experimental with two comparison groups and a before-after design and/or an interrupted time series analysis. The reference group included all the white beneficiaries with diabetes residing in the Bronx, Kings, New York and Queens counties. The control/contrast groups were the African American beneficiaries with diabetes residing in Albany, Erie, Monroe, and Onondaga counties.

Interventions:

IPRO focused the interventions on the provider and the community. Targeted provider interventions included on-site visits to review the American Diabetes Association's (ADA) guidelines for screening of lipid disorders, distribution of the provider toolkit *Diabetes Management Tools for Your Practice*, reminder materials and culturally and linguistically-appropriate patient reminders and educational materials. IPRO also implemented the manual patient registry, Outpatient Rapid Assessment Tool (OPRA) and updated the Contact Management System, a windows-based application that allows tracking of office contacts either by telephone, in person, or by mail. A medical practice assessment (MPA) tool was subsequently developed and widely used to standardize the data collected during the on-site visit. IPRO also conducted a mailing of provider performance feedback reports and offered cultural competency training to providers statewide. In conjunction with the New York State Department of Health (NYSDOH), IPRO held an educational teleconference on cultural sensitivity and competency to improve diabetes care of African Americans.

In targeting the community, IPRO partnered with various stakeholders including the New York City Department of Health and Mental Hygiene's (NYC DOHMH) Diabetes Prevention and Control Office. IPRO participated in the NYC Diabetes Summit hosted by the NYC DOHMH, and was a co-facilitator of the breakout session, entitled "Improving Clinical Diabetes Management in African American and Latino Populations." They also worked with the Centers for Disease Control and Prevention's (CDC) *Take Charge of Your Diabetes* curriculum. Other

educational interventions included mass media campaigns, pamphlets, brochures, health fairs, educational sessions, direct mailings to beneficiaries and a nutritional toolkit (cookbook) specific to African Americans. IPRO developed a press release highlighting the disparity in biennial receipt of lipid profiles. A press release of a similar editorial article was distributed to various publications in the NYC area that resulted in a total of 16 stories appearing in top African American press outlets as well as a daily newspaper. The media campaign resulted in coverage on some important NYC broadcasted outlets and included IPRO’s participation in a panel discussion in a local television program, as well as a guest appearance on a local radio program. IPRO launched a radio advertising campaign on several NYC-based radio stations. Another intervention included a diabetes awareness advertising campaign displayed on bus shelters throughout Kings County. IPRO also participated in the ADA Diabetes Expos in NYC.

Lessons Learned:

- Buy-in from the targeted physicians in the launch of the program was an important factor for success.
- Effective provider interventions included those that focused on system changes.
- When administrating a comprehensive tool such as MPA, adequate planning is necessary to ensure ample time is available.
- It is cost effective and very efficient to use the Nursing students and interns to run the diabetes self-management education program.
- It is important to initiate early discussions with senior center staff to allow sufficient time for scheduling programs.

Results:

The absolute improvement for the target population was 16.7 percent. IPRO reduced the disparity by 11.9 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	63.8	80.5	16.7
Reference Population	85.0	89.8	4.8
Disparity	21.2	9.3	
Reduction in Disparity			11.9

Contact Information:
 Telephone: 516.326.7767
 Fax: 516.326.0434
 1979 Marcus Avenue
 First Floor
 Lake Success, NY 11042



Ohio

Quality Improvement Organization:	Ohio KePRO
Target Population:	African American
Clinical Topic:	Diabetes
Indicator:	Lipid Profile

Project Objectives:

To reduce the disparity between African American and white, non-dually enrolled Medicare beneficiaries with diabetes who receive lipid profile testing by increasing the number of African American Medicare beneficiaries with diabetes who receive lipid profiles.

Background:

According to the Outpatient Data Quality Improvement Organization Support Center (ODQIOSC) Baseline Data Released April 1, 2001 to March 31, 2003, in Ohio, the initial baseline disparity in biennial lipid profile testing between the target and reference population was 13.7%. The reference population was designated as white, non-dually enrolled beneficiaries with diabetes. The Ohio 2001 diabetes death rate was 29.2 per 100,000 for whites while for African Americans it was 54.6.

Study Design:

A pre-post study design was selected for this study. ODQIOSC baseline data release were used to evaluate rates before and after intervention implementation. This project was designed to evaluate differences between biennial lipid profile testing rates for African American and white diabetic Medicare beneficiaries within Ohio. Lipid profile testing rates were evaluated over the course of two 2-year measurement periods with a one year intervention period in between.

Interventions:

Ohio KePRO interventions focused on receipt of appropriate care through provider and beneficiary education. The provider education interventions included academic detailing, educational visits, and the physician office toolkit that included diabetes management flowsheets, cultural competency materials, a *Managing Your Diabetes* workbook and diabetes care chart stickers. Another intervention was the use of the Outpatient Rapid Assessment Tool (OPRA), a form filled out by the beneficiary that helped the provider assess whether the beneficiaries needed medical tests performed. Eventually, a copy of this form was sent to Ohio KePRO for analytical reports and further process improvement opportunities with the provider. Ohio KePRO also held a series of teleconferences on Health Literacy and also distributed recordings of the teleconference on CD-ROMs. In addition, Ohio KePRO distributed CMS' *Medicare Coverage of Diabetes Supplies & Services* and poster and flyers to place on the back of exam room doors. To target the beneficiary, Ohio KePRO did four mailings of reminder postcards, spaced over a four month period. An Outreach Intervention Specialist presented at exhibits and community outreach events. Ohio KePRO hosted and sponsored media events to include more than 20 shows about diabetes on two weekly radio programs and more than 30 instances of earned media coverage for diabetes topics in newspapers and print publications, including letters to editors regarding Minority Health Month, Take A Loved One to the Doctor Day, and national observances for diabetes awareness. Ohio KePRO also was featured monthly on the TV show *Golden Opportunities* in the Cleveland area. Thirteen thousand copies of the quarterly Medicare beneficiary newsletter *For Your Benefit* were sent to libraries, senior centers, and organizations

throughout Ohio. Additionally the Ohio KePRO Project Team members attended coalition meetings, planning sessions and events, and shared beneficiary-directed materials.

Lessons Learned:

- Implementing the OPRA Tool enabled and reminded providers to address care measures that they had inadvertently missed in the past.
- Materials such as the *Managing Your Diabetes* workbook and the OPRA tool need to be translated into Spanish.
- Although teleconferences were well received, there was low attendance thus the need to create CD-ROM for distribution.
- In many instances, the office manager is the driver of quality in the physician office setting and can influence the providers in the implementation of quality improvement interventions.

Results:

The absolute improvement for the target population was 14.9 percent. KePRO reduced the disparity by 6.0 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	65.4	80.3	14.9
Reference Population	79.1	88.0	8.9
Disparity	13.7	7.7	
Reduction in Disparity			6.0

Contact Information:
 Telephone: 216.447.9604
 Fax: 216.447.7925
 Rock Run Center
 Suite 100
 5700 Lombardo Center Drive
 Seven Hills, OH 44131



Oklahoma

Quality Improvement Organization:	Oklahoma Foundation for Medical Quality
Target Population:	Rural hospitals
Clinical Topic:	Heart Failure
Indicator:	LVF assessment

Project Objectives:

To increase the use and documentation of appropriate diagnostic tests to evaluate the left ventricular function (LVF) for patients with heart failure admitted to rural hospitals.

Background:

Heart failure is a uniquely appropriate target for quality improvement efforts. It is a common condition in the elderly, documented in 20% of all hospital admissions among persons over the age of 65. The prevalence has increased 159% over the last decade. Substantial disparity is present in inpatient care of heart failure patients. The primary indicator for this project focuses on assessing and documenting left ventricular function. Medicare beneficiaries discharged from a rural hospital are less likely to have a left ventricular function documented in the medical record during a hospitalization than those discharged from urban hospitals. Baseline data indicated a 26% disparity between urban and rural hospitals in this indicator. Initial hospital assessment indicates that the test is available in the majority of rural Oklahoma hospitals.

Study Design:

The study design is pre/post assessment of the rate of compliance with the heart failure performance measures. The design allows for a control group of rural hospitals that are not engaged participants in the rural project.

Interventions:

Interventions included the recruitment of a physician champion, coordination and presentations at seminars, regional evening educational offerings. Oklahoma Foundation for Medical Quality (OFMQ) physician was available to speak to medical staff, extensive work with collaboratives, distribution of written material and guidelines. OFMQ also provided on-site individual training on data collection and reporting, as well as onsite, one-on-one, or group education related to systems changes offered by Quality Improvement Specialists. OFMQ worked with Langston University to perform a community assessment. Other interventions included education via student presentations, promotion of immunization clinics at health fairs, churches, shopping centers, homecomings, senior citizen centers, beauty and barbershops and planned and assisted with immunization clinics.

Lessons Learned:

- It is difficult to engage rural physicians in learning opportunities.
- Hospital staff had minimal experience collecting and reporting data and limited computer skills.
- Onsite visits helped to create strong relationships with partnering hospitals.
- Few hospitals had QI teams or structured methods in place to improve quality.

Results:

The absolute improvement for the target population was 10.6 percent. The reduction in disparity was 3.9 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	34.5	45.1	10.6
Reference Population	71.7	78.4	6.7
Disparity	37.2	33.3	
Reduction in Disparity			3.9

Contact Information:

Telephone: 405.840.2691
Fax: 405.840.1343
14000 Quail Springs Parkway
Suite 400
Oklahoma City, OK 73134-2600



Oregon

Quality Improvement Organization:	OMPRO
Target Population:	Hispanic
Clinical Topic:	Diabetes
Indicator:	Lipid Profile

Project Objectives:

To increase LDL-C testing for Oregon Latino Medicare beneficiaries with diabetes by developing and implementing interventions through collaborations with community partners.

Background:

Other than rural beneficiaries, Latino Americans are the largest underserved Medicare population in Oregon, and census data shows that the Latino population is the fastest growing racial/ethnic group in the state. Additionally, diabetes in this population is a serious health challenge because of the high prevalence, the number of risk factors, and the greater incidence of complications.

Study Design:

OMPRO used a quasi-experimental non-equivalent groups design to assess the effectiveness of the project interventions. The study was structured using an experimental pre/post design.

Interventions:

Two types of interventions were designed to address the need for culturally appropriate diabetes education and to promote systems changes in the healthcare delivery system. The interventions for culturally appropriate diabetes education included a series of ten monthly conference calls that targeted clinic administrators and was intended to make information more accessible to them. Another intervention was site visits in which OMPRO staff provided consultation, encouragement, and individualized education. OMPRO provided a toolkit to each clinic that included low-literacy materials supporting diabetes self-management and resources for clinic leadership. OMPRO held two conference calls conducted by respected bicultural facilitators, addressing diversity, classism, and racism within the Latino community. Another tool used was “Tomando Control de su Salud,” the Spanish-language version of the Chronic Disease Self-Management Program developed by Stanford University. At the end of this training conducted by OMPRO entirely in Spanish, 19 staff from the intervention clinics graduated as licensed program leaders. From this point forward, these graduates were known as *promotores*, a commonly understood term for bicultural, bilingual community health workers.

Lessons Learned:

- Using *promotores* who were strongly bonded with the community and had a sense of ownership of the program kept enthusiasm high and established respect within the community.
- Rigidity of the licensing process for new “Tomando Control de su Salud” was found to be an impediment.
- This project demonstrated that changes in information technology impacted the usefulness of freestanding patient registries in physician offices.
- The integration of electronic medical records presented a challenge due to lack of registry capabilities. A recent directive from CMS curtailing QIO support for registries in the future will impact both the sustainability of this technology and the direction of future interventions.

Results:

The absolute improvement for the target population was 12.6 percent. OMPRO reduced the disparity by 5.0 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	69.0	81.6	12.6
Reference Population	79.8	87.4	7.6
Disparity	10.8	5.8	
Reduction in Disparity			5.0

Contact Information:

Telephone: 503.279.0100

Fax: 503.279.0190

2020 SW Fourth Avenue

Suite 520

Portland, OR 97201-4960



Pennsylvania

Quality Improvement Organization:	Quality Insights of Pennsylvania (QIP)
Target Population:	African American
Clinical Topic:	Diabetes
Indicator:	HbA1c

Project Objectives:

To reduce excess death and disability from diabetes and its complications among targeted African American Medicare beneficiaries.

Background:

According to the Philadelphia Health Management Corporation Community Health Survey, diabetes, a condition associated with severe disabling complications, affects minority populations in significantly higher proportions. Diabetes is a serious, steadily growing health concern in the United States. The US Department of Commerce, states that Philadelphia is home to the state's largest African American population and one-third of the state's African American diabetics. Although a heterogeneous city, nearly 85% of African Americans tend to reside in five of the health district areas.

Study Design:

QIP used a pre-post evaluation study design, measuring the impact of the interventions by using the Centers for Medicare & Medicaid Services (CMS) claims data.

Interventions:

Implementation of the beneficiary and provider targeted interventions was facilitated by participation in the Philadelphia Diabetes Coalition (PDC). The coalition adopted the slogan "7 or below is the way to go" and this message was included on materials developed by the coalition and many of its members. Additionally, there were Television Public Service Announcements, radio announcements, appearances in radio talk shows, reminder brochures, letters and flyers about diabetes education programs were distributed at neighborhood senior centers and churches. Posters with the coalition slogans were printed and were distributed throughout the Philadelphia region by pharmaceutical sales representatives. QIP worked closely with key community stakeholders to develop and disseminate accurate and culturally appropriate information to educate African American beneficiaries about diabetes and encouraging timely HbA1c tests. Materials were produced in multiple formats and distributed at neighborhood churches, beauty salons, barbershops, grocery stores, pharmacies, restaurants, and the Philadelphia Diabetes Expo. Other interventions emphasized direct contact with primary care and other ancillary healthcare providers. The staff at QIP worked with the largest primary care network in Philadelphia, Temple University School of Podiatric Medicine, and associated clinics to continue to order educational materials and practice tools. One provider in the target area adopted and implemented Preventive Care Software (PETS) for preventive care tracking. An additional practice is implementing the Outpatient Rapid Assessment forms to monitor the care provided to its diabetic patients.

Lessons Learned:

- The most critical of the factors was QIP’s working knowledge of the community and organizations that serve it.
- Collaboration with coalition partners allowed more members of the community and healthcare providers to be reached than would have otherwise been possible.
- Health literacy in this community is low and the target population does not understand much of the written material about diabetes.
- Beneficiaries needed rudimentary education about diabetes and its care before they could grasp the importance of HbA1c testing.
- Beneficiaries do not want to travel outside their neighborhoods for services and few primary care physicians practice in the neighborhoods of greatest need.
- Lack of timely claims data hindered the ability to monitor program progress.
- Having multiple agencies focusing on HbA1c testing in the city made it close to impossible to evaluate the impact of any one initiative.
- Including unique factors into the campaigns facilitated evaluation of individual interventions.

Results:

The absolute improvement for the target population was 7.7 percent. QIP reduced the disparity by 3.4 percent.

Table1. Results of Targeted intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	69.5	77.2	7.7
Reference Population	77.1	81.4	4.3
Disparity	7.7	4.2	
Reduction in Disparity			3.4

Contact Information:
 Telephone: 717.671.5425
 2601 Market Place Street
 Harrisburg, PA 17111



Puerto Rico

Quality Improvement Organization:	PRQIO
Target Population:	Rural
Clinical Topic:	Diabetes
Indicator:	Lipid Profile

Project Objectives:

To reduce the disparity between rural and urban diabetes population in Puerto Rico by increasing lipid profile testing.

Background:

Using diabetic measures from October 1, 1999 thru September 30, 2001, PRQIO identified a disparity between urban and rural diabetes population in Puerto Rico. Barriers identified that contributed to the disparity in the rural population included less access to proper diabetes prevention and control programs as well as lack of quality of care due to less education of the beneficiaries and their families.

Study Design:

The study design for this project was a pre and post evaluation of the identified quality indicator rates for the identified populations. The populations identified are classified as reference and target group. Where the target group was rural counties and the reference group was urban counties. The post intervention rates were compared to the baseline performance levels of each respective group to evaluate the outcomes and the effectiveness of the interventions.

Interventions:

PRQIO focused the interventions on the community and the provider. For the community based interventions, PRQIO collaborated with the Diabetes Coalition, and the Puerto Rico Health Department on the diabetes education campaigns. PRQIO additionally developed and distributed a brochure, a poster, a fact sheet, flyers and other appropriate material to inform beneficiaries about the importance of a biennial lipid. PRQIO worked with community leaders willing to endorse a mailing and developed strategies in order to create awareness of the disease and its complications. PRQIO organized health fairs where various speakers presented, visited aging centers to emphasize individual responsibility and self-management, and developed an educational public forum on diabetes that addressed diet, exercise, and eye and foot care. In the provider based interventions, PRQIO focused on implementation of systems changes through education, on-going support and a tool kit. The tool kit included a data collection tool based on national guidelines and the three diabetes quality indicators, a reminder tool for diabetes care guidelines, and on-going data feedback that included rates of indicator performance, monitoring results, as well as aggregate comparative data and benchmarks. There was also additional support with ongoing interaction and partnership building.

Lessons Learned:

- PRQIO developed and distributed a questionnaire at the aging centers however, the results did not provide as much valuable information as previously anticipated.

Results:

The absolute improvement for the target population was 29.8 percent. The reduction in disparity was 12.1 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	48.2	78.1	29.8
Reference Population	66.4	84.2	17.8
Disparity	18.1	6.1	
Reduction in Disparity			12.1

Contact Information:
Telephone: 787.641.1240
Fax: 787.641.1248
Mercantile Plaza Building
Suite 605
Hato Rey, PR 00918



Rhode Island

Quality Improvement Organization:	Quality Partners of Rhode Island
Target Population:	Dually Enrolled
Clinical Topic:	Diabetes
Indicator:	Lipid Profile

Project Objectives:

To reduce disparities between the Medicare white, non-dually enrolled, diabetic population and the dually enrolled non white population by increasing the number of dually enrolled beneficiaries with diabetes in Rhode Island (RI) who have a biennial lipid testing. The use of lipid testing for early detection of cardiovascular disease.

Background:

At the beginning of the project, or baseline, there were 6,190 beneficiaries that had diabetes in the state of Rhode Island. Of these 2,365 or 38.2% of RI's diabetic beneficiary population were dually enrolled. These numbers and previous work accomplished with this same population and clinical topic gave Quality Partners of Rhode Island an opportunity to expand on these successes.

Study Design:

This study used a prospective cohort, non-experimental, intention-to-treat analysis design. Using CMS data, the intervention and control populations were identified, and the analysis was completed at the conclusion of the intervention period. Subjects were included in the intervention group whether or not they actually received the intervention (intention-to-treat design). Controls were selected based on CMS recommended comparison groups.

Interventions:

The interventions developed for this project targeted physicians/providers and beneficiaries. The physician-directed interventions were intended to educate, raise awareness, collect input and feedback from physician practices, and identify tools that best supported physicians in their practice. TEAMWorks, modeled after Kaiser Permanente's successful *Diabetes Morning*, which was a half-day diabetes program conducted in the physician's office. The sessions offered patients with diabetes key self-management information from a team of diabetes educators (nurse, dietician, and pharmacist) and their physician. The results of lab tests (HbA1C, lipid profiles, and tests for microalbuminuria) obtained prior to the program date, were available to the team during the program. Quality Partners of Rhode Island provided a Diabetic Toolkit that included best practice educational materials and tools, motivational interviewing and reflective listening tools, patient education materials and self-management tools and office displays for patient education. Other interventions include a TEAMWork, session focusing on the beneficiary for group learning. These sessions include nutrition and diabetes community specific information resources, discussions about good food choices and proper use of medication, benefits of exercise and proper foot, eye and dental care. New products on the market were discussed and time was allocated for networking.

Lessons Learned:

- Formal training of team members and internal quality control are essential components for obtaining useful and valid information from office assessments.
- The role of the primary care physicians has been critical to the success of this project.
- Physicians have limited time to focus on initiatives outside their clinical practice and the busy schedules that they manage.
- Dually enrolled diabetic patients are unique and the complexity of the care required for this group of individuals cannot be underestimated.
- Success can be achieved with partners in communities.
- The role of community service and state agencies is critical to preserving the quality of life for many of these patients who are at high risk.

Results:

The absolute improvement for the target population was 14.5 percent. The reduction in disparity was 6.6 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	74.8	89.3	14.5
Reference Population	80.1	88.0	7.9
Disparity	5.3	-1.3	
Reduction in Disparity			6.6

Contact Information:

Telephone: 401.528.3200
 Fax: 401.528.3210
 235 Promenade Street
 Suite 500, Box 18
 Providence, RI 08908



South Carolina

Quality Improvement Organization:	The Carolinas Center for Medical Excellence
Target Population:	African American
Clinical Topic:	Breast Cancer
Indicator:	Mammography

Project Objectives:

To decrease the disparity in mammography screening rates between African American and Caucasian women.

Background:

According to South Carolina Facts and Figures 2001-2002 of the South Carolina Central Cancer Registry, South Carolina currently ranks 23rd in the nation in female breast cancer mortality. An estimated 580 women in South Carolina were expected to die of breast cancer in 2002. African American women are nearly 42% more likely to die of the disease compared to nearly 19% of Caucasian women likely to develop breast cancer.

Study Design:

A longitudinal study design was employed for this project. This design allowed The Carolinas Center for Medical Excellence (CCME) staff to determine the screening rates in a population at varying points in time. Medicare claims data collected from the study were used to demonstrate the magnitude and distribution of the disparity between African American and Caucasian female beneficiaries in CCME's defined counties. Baseline screening rates were determined. For purposes of this project, the intervention group consisted of African American women residing in the 16 counties who met the inclusion criteria. For purposes of disparity determination, the reference group consisted of white and non-dually enrolled female Medicare beneficiaries who met the inclusion criteria for mammography screening in the 16 determined counties. The reference group mammography-screening rate was compared with the mammography-screening rate of the intervention group at baseline and re-measurement to determine the percent change in mammography screening rate for both groups.

Interventions:

CCME conducted multiple interventions that included the coordination of a media campaign, Breast Cancer Awareness Month activities, a community mini-grant project, and a Faith and Health Ministry Conference. CCME also created a TV and radio commercial and purchased print ads in major newspapers. During Breast Cancer Awareness Month, CCME offered culturally appropriate educational materials to providers, sent educational/informational mailings to the faith communities, and placed articles in newsletters and faith organizations' bulletins. For the Community Mini-Grant Project, CCME offered community mini-grants of up to \$15,000 for innovative community projects designed to increase mammography screening rates among female African-American Medicare beneficiaries. The team developed and mailed a Request for Proposal (RFP) to 56 identified organizations, an internal review committee determined that of the six groups that responded, three met the criteria as outlined in the RFP and were therefore recommended for funding. The goals of these organizations were to provide educational and train-the-trainer sessions for churches to initiate breast cancer educational meetings to their members. Additionally, these organizations identified all women in their area who were in need of a mammogram, and worked with churches to provide transportation for screenings. In working with the faith community, CCME worked with partners to conduct the Faith and Health

Ministry Conference to reach faith communities to increase indicator rates of mammography, immunizations, and diabetes especially among African American populations.

Lessons Learned:

- Faith-based organizations are a trusted source of health information distribution in the African American community.
- Faith communities are informal about tracking activities and results
- Because many organizations and community groups conduct activities during Breast Cancer Awareness Month, partnering with established organizations and reputable groups to develop and implement activities is more efficient than attempting to create new interventions and possibly duplicating existing ones.
- Many grassroots community organizations and local groups who were staffed by volunteers lacked the infrastructure to successfully implement grant activities.
- Though many community groups may have goals for improving the health status of its residents, without the proper infrastructure, groups will be unlikely to attain success. Appropriate follow-up and regular contact with community groups is crucial in identifying problems and potential loss of project momentum.
- It is very difficult to secure support and establish infrastructure of projects prior to awarding grants.
- Without communication, it became impossible to continue support of two of the awarded grants resulting in the termination of funding.

Results:

The absolute improvement for the target population was 4.0 percent. The reduction in disparity was 5.6 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	50.5	54.5	4.0
Reference Population	66.4	64.8	-1.6
Disparity	15.9	10.3	
Reduction in Disparity			5.6

Contact Information:
 Telephone: 803.251.2215
 Fax: 803.255.0897
 246 Stoneridge Drive
 Suite 200
 Columbia, SC 29210



South Dakota

Quality Improvement Organization:	South Dakota Foundation for Medical Care
Target Population:	American Indian
Clinical Topic:	Diabetes
Indicator:	HbA1c

Project Objectives:

To increase the rate of South Dakota Native American Medicare beneficiaries that receive annual glycosylated hemoglobin A1c (HbA1c) monitoring.

Background:

Compared to all US populations, Native Americans residing in South Dakota under the administrative area of Aberdeen Area Indian Health Service (AAIHS) (to include Iowa, Nebraska, North Dakota, and South Dakota) experience some of the greatest health challenges in the nation. The South Dakota Foundation for Medical Care (SDFMC) has been working with the Native American people and healthcare providers of the AAIHS system over the past four years to increase the rate at which Native American Medicare beneficiaries with diabetes receive annual HbA1c testing. According to 2001 testimony by Frank Vinicor, MD, diabetes program director for the CDC, at the hearings before the Senate Committee on Finance, 107th Congress, diabetes is the 4th leading cause of death among American Indians and Alaskan Natives. This accounts for 4.9% of all deaths in this population.

Study Design:

This study includes a pre and post measurement of the percentage of Native American Medicare beneficiaries, age 18-75, who received annual HbA1c monitoring. The baseline timeframe was October 1, 2000 to September 30, 2001; the remeasurement period was October 1, 2003 to September 30, 2004. Annual HbA1c rates for Native Americans were compared to the HbA1c rates for Caucasians, non-dually enrolled Caucasians, Minorities non-Native American, and the National Control Group (NCG).

Interventions:

SDFMC conducted multiple interventions. The spoken word for the Native Americans is very important and because Lakota is the primary language spoken, SDFMC ran culturally and linguistic appropriate radio ads. The message developed had the first few seconds of the ad spoken in the Lakota language. SDFMC provided culturally sensitive printed materials and worked with the American Medical Association to provide low health literacy patient education. Another method of educating patients is the use of "Talking Circles." This is a traditional "Indian Way" of sharing stories and lessons to pass knowledge and experience on to other members of the community. For this intervention, a curriculum was developed for facilitators in which traditional story telling techniques were used to promote health and wellness. SDFMC conducted numerous face-to-face on-site visits to the different reservations, to meet face-to-face with diabetes educators and to offer educational materials and support. Additionally, SDFMC worked with AAIHS to prepare a recognized diabetes education programs for beneficiaries as well as providing continuing education units (CEUs) for Diabetes Educators through a series of educational teleconferences and Continuing Medical Education (CME) for physicians. To empower patients to participate in and share responsibility for their healthcare needs, SDFMC created "Diabetes Passports" in collaboration with diabetes educators. These passports were printed and delivered or sent to AAIHS diabetes educators throughout the state. SDFMC

participated in health fairs, collaborated with numerous organizations throughout the state including the South Dakota Senior Health Information and Insurance Education and presented to the Sioux Falls Urban Indian Health Clinic Diabetes Support Group and to the Flandreau Santee Sioux Tribal Clinic.

Lessons Learned:

- It is important to understand the culture prior to developing any interventions.
- Working in the Native American culture, SDFMC learned that it is rude to decline an invitation, and if an offer is refused, subsequent invitations will not be forthcoming.
- Native Americans are very spiritual; they believe that you cannot separate the body from the mind, spirit, or heart. Further, all things in life must be in balance so to treat one (the body), you must treat all (mind, spirit and emotions).
- Culturally appropriate “Talking Circles” were found to be very effective.
- SDFMC learned that health literacy is an issue for many elders who can speak English but may not be able to read it.

Results:

The absolute improvement for the target population was 2.8 percent. There was no reduction in disparity.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	33.5	36.3	2.8
Reference Population	85.0	89.3	4.3
Disparity	51.5	53.0	
Reduction in Disparity			-1.6

Contact Information:
 Telephone: 605.336.3505
 Fax: 605.336.0270
 1323 South Minnesota Avenue
 Sioux Falls, SD 57105-0691



Tennessee

Quality Improvement Organization:	QSource
Target Population:	Dually Enrolled
Clinical Topic:	Breast Cancer
Indicator:	Biennial Screening Mammography

Project Objectives:

After a literature review, formative research in the 6th SoW and an analysis of mammography data, QSource decided on the following objectives:

- To increase biennial mammography screenings for dually enrolled beneficiaries ages 52-69 in 16 counties in West Tennessee.
- To reduce the disparity in mammography screenings between dually enrolled and white non-dually enrolled beneficiaries ages 52-69 in 16 counties in West Tennessee.
- To form a collaborative between beneficiaries, healthcare professionals and community agencies to promote mammography education and screenings.
- To increase early detection of breast cancer, improve survivability and a reduction in the overall mortality rate associated with breast cancer.

Background:

Dually enrolled Medicare beneficiaries in Tennessee are disproportionately non-white. Nearly 25 percent of all female Medicare beneficiaries were dually enrolled, and among these, the percentage of non-white females was nearly 46 percent. Several studies have shown that low income and minority women are less likely to receive mammography screening.

Study Design:

The intervention group was identified by QSource at the beginning of the 7SoW and consisted of women who had dually enrollment in Medicare and Medicaid and reside in one of the 16 target counties. The reference group consisted of women within the 16 target counties who are white and do not have dually enrollment.

Interventions:

QSource divided their interventions into three groups: physician-based, beneficiary and community to reach the dually enrolled population in several settings.

The Physician Office Quality Improvement Specialist (POQIS) conducted physician office visits, provided physician education materials and tools, and promoted the use of office reminder systems and patient education/reminder systems to encourage patient compliance. In addition, the POQIS participated at statewide medical conferences to emphasize the need for mammography.

The work with community partners was accomplished by collaborating with Certified Mammography Centers/Mobile Mammography Units, senior housing facilities, senior centers, Mental/Behavioral Health Organizations, Area Agencies on Aging (AAA), and the Train-the-Trainer Network. In working with these organizations, QSource was able to identify dually enrollees in order to promote breast health education, provide mammography-screening exams, hold educational workshops and booth representation/presentation at conferences.

Beneficiaries were the focus of a “Special Day” themed educational campaign using direct mail, flyers, posters, breast health reminders systems, Volunteer Trainer presentations and marketing materials.

QSource used their extensive experience in working with faith communities to promote educational services and participation in health fairs, speaking engagements, presentations, solicitation of marketing/collateral materials, educational posters/brochures, etc. QSource also looked to their Faith Community Network to promote prevention activities for beneficiaries.

Lessons Learned:

- Maintain a consistent message over time to all stakeholders. The dually enrolled received the same message-“Be There for That Special Day”- at their residence, their physician’s office, in the newspaper, on the radio, at their place of worship and at their senior center.
- The communication team was another key to this project; it was crucial to maintain media contacts to place ads in local newspapers and radio spots on the air to disperse the “Special Day” messages.

Results:

The rate of Mammography utilization for the target population showed an absolute improvement of 2.6 percent (Table1). QSource reduced the disparity by 1.8 percent.

Table1. Results of Targeted Intervention in Tennessee

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	47.0	49.6	2.6
Reference Population	60.6	61.4	0.8
Disparity	13.6	11.8	
Reduction in Disparity			1.8

Contact Information:
 Telephone: 901.682.0381
 Fax: 901.761.3786
 3175 Lenox Park Blvd,
 Suite 309
 Memphis, TN 38115



Texas

Quality Improvement Organization:	TMF Health Quality Institute
Target Population:	African American
Clinical Topic:	Diabetes
Indicator:	Lipid Profile

Project Objectives:

To reduce the disparity of lipid testing given between African Americans with diabetes and Caucasians with diabetes, excluding the dually enrolled in the seven-county area.

Background:

Diabetes is highly prevalent in Texas and a major source of healthcare related Medicare costs. The economic impact of diabetes in the Medicare population in Texas is substantial.

Study Design:

Texas Medical Foundation (TMF) used a pre-test/post-test study design comparing rates of biennial lipid testing between the underserved and reference groups.

Interventions:

Under the direction of a community-led, TMF facilitated, Advisory Group representing 17 local organizations and institutions, TMF focused their interventions on the beneficiary and the provider. Beneficiary population interventions included partnerships with over 60 Community and Faith Based Partners including *the Harris County Hospital District, Fort Bend County and Greater Houston Black Nurses' Association, Harris County Medical Society, and the American Heart Association (AHA)*. Activities included successful nurse recruitment and training, participation in education health events, promotion of lipid testing and peer education activities. TMF worked with community and faith-based partners to create and distribute educational materials as well as promote the project via the media. Educational and promotional materials, and media efforts featured Advisory Group members who were prominent local African American physicians, nurses and well-known health educators. TMF partners and advisory group members were instrumental in recruiting other community leaders, health educators, clinical staff and physicians into the project. Peer helpers were recruited through local churches to educate community members about Medicare coverage, common myths and misconceptions concerning diabetes and lipid testing. TMF coordinated with the local AHA to train over 60 volunteer nursing staff to create additional points of access for the African-American community through local health fairs as well as coordinated transportation with the City Health and Human Services Department to offer access to a health event in Fort Bend County. Due to a wide beneficiary distribution among primary care physicians within the targeted communities, provider interventions were a secondary priority following beneficiary focused interventions. Physicians with at least 10 African-American beneficiaries with a diagnosis of diabetes and a 3% disparity were invited to a preliminary meeting to introduce the project, promote awareness of the disparity, provide reasons for the disparity and offer tools and strategies to decrease the disparity in the target population. TMF offered a \$250 honorarium for participation and provided consultation services focused on workflow and system changes to improve preventive care services. TMF used the Outpatient Rapid Assessment (OPRA) tool and provided onsite training on how to effectively use and implement the tool. Using Rapid Cycle Improvement, TMF quality improvement staff made monthly visits (or more as needed) to each of the clinics to coach and encourage the staff throughout the project. TMF provided cultural competency training to raise

provider awareness about the disparity in lipid testing rates. The training featured a well-known speaker at a prominent restaurant with the opportunity for Continuing Education credit for Physicians (CME) and Nurses (CEU).

Lessons Learned:

- Members of the target community should be involved in projects that affect their constituents. Objectives were determined by the group rather than for the group and, as a consequence, were accepted and embraced by all members of the group.
- Presenting the initiative as a cooperative effort between church leaders and other trusted members of the community ensures acceptance on the part of volunteers.
- Local spokespersons from the community (e.g. local physician champions) to represent the program produced a greater level of response from media and community leaders. Information disseminated from an outside organization as opposed to a community-based organization may not be read.
- Identifying specific time commitments and focus of the project resulted in an effortless commitment on the part of committee members.
- People who are already motivated to address their own health issues will take advantage of opportunities regardless whether they were invited.
- Although the consultative model is an effective method for practice evaluation and systems improvement, insufficient physician practice commitment to the project presented challenges to sustain the process of testing and learning leading to improvement. Some of the challenges included staff conflict, staff turnover, and “added paperwork” as a result of tested interventions.
- Physicians did not display the anticipated level of interest. Financial reward, providing dinner, CME/CEU credit and other enticements were not persuasive techniques as predicted.

Results:

The absolute improvement for the target population was 13.0 percent. The reduction in disparity was 5.9 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	71.1	84.1	13.0
Reference Population	81.8	88.9	7.1
Disparity	10.8	4.8	
Reduction in Disparity			5.9

Contact Information:

Telephone: 512.329.6610
 Fax: 512.327.7159
 Bridgepoint I, Suite 300
 5918 West Courtyard Drive
 Austin, Texas 78730-5036



Utah & Nevada

Quality Improvement Organization:	HealthInsight
Target Population:	American Indian
Clinical Topic:	Immunizations
Indicator:	Pneumococcal (PPV) & Influenza vaccine

Project Objectives:

To improve immunization among American Indian/Alaskan Native (AI/AN) elders who are 65 years and older, enrolled in Medicare, living on or off a reservation in Nevada and/or Utah.

Background:

In the United States, pneumococcal infections and influenza are a major cause of mortality and morbidity for persons aged 65 and older. The Indian Health Services (IHS) 1999 published report “Trends in Indian Health” found 22% of the deaths among AI/AN, between 1998 and 1999, were attributed to Pneumonia and Influenza, making this community 1.7 times more likely to die from these diseases than the general population.

Study Design:

The study design for this project was a simple pre/post assessment.

Interventions:

In order to address the disparity from several perspectives that are more culturally appropriate for this population, HealthInsight chose four categories to implement interventions; Awareness, Access, Tracking, and Mentoring. Because of the population’s known health seeking behaviors, it was important to target *awareness* of immunizations in such a manner that it was seen as protecting families, heritage and culture not just oneself. HealthInsight developed an educational tool to complement the cultural practices of these populations. The issue of *access* to immunizations was addressed in community, social and health events by having immunizations available at events traditionally attended by large numbers and groups of AI/AN. HealthInsight developed a list of providers, organizations and agencies who were willing to support immunizations; provided education at these specific events, and made sure services were available. This created a sense of trust and acceptance among the community at large. In the past, accurately *tracking* the population was difficult. HealthInsight therefore focused on provider documentation and agency documentation. At the provider level, this led to better understanding of gaps and areas for improvement and defined a baseline for measurement after a specific intervention had been employed. This ultimately demonstrated an improvement in immunization rates specific to the provider. The *mentoring* intervention was designed to create opportunities to learn from one another and provide a culturally appropriate forum for discussion and analysis.

Lessons Learned:

- Cultural competency and respect for the way these populations view health and business is a vital link to making progress and improvements.
- Persistence and willingness to meet the community half way is vital to maintaining open lines of communication.
- The ability to travel to the community on a regular basis demonstrated a commitment and developed trust.
- With communities that are underserved and of color, two to two and a half years is not enough time to develop a strong, reliable and trustworthy relationship.
- There is a need for more culturally appropriate immunization patient education material.
- There needs to be a mechanism for correctly identifying these populations.

Results:

In Nevada, although there was no absolute improvement, there was a reduction in disparity of 4.7%. In Utah, there was an absolute improvement of 2.3 percent and a reduction of disparity of 0.6%.

Table1. Results of Targeted Intervention for Nevada

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	12.8	12.8	0.0
Reference Population	33.2	28.5	-4.7
Disparity	20.4	15.7	
Reduction in Disparity			4.7

Table2. Results of Targeted Intervention for Utah

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	15.0	17.2	2.3
Reference Population	50.7	52.3	1.6
Disparity	35.7	35.1	
Reduction in Disparity			0.6

Nevada Contact Information:

Telephone: 702.385.9933
 Fax 702.385.4586
 500 South Rancho Drive
 Las Vegas, NV 89106

Utah Contact Information

Telephone: 801.892.0155
 Fax: 801.892.0160
 348 E. 4500 S.
 Suite 300
 Salt Lake City, UT 84107



Virginia

Quality Improvement Organization:	Virginia Health Quality Center (VHQC)
Target Population:	African American
Clinical Topic:	Breast Cancer
Indicator:	Mammography

Project Objectives:

To increase mammography utilization rates among female African American Medicare beneficiaries ages 50 – 67 in targeted cities and counties. Ultimately, VHQC was looking to reduce the disparity in mammography utilization between African American and Caucasian female Medicare beneficiaries in targeted areas.

Background:

Virginia has a lower incidence of breast cancer in the general population, for all ages, when compared to the nation (123.7 versus 132.2 per 100,000 women), but the mortality rate of women in Virginia is similar to the national average (28.4 per 100,000 versus 27.0 per 100,000). In Virginia, the statewide mammography rate for African Americans was 5.5% lower than the mammography rate for Caucasians (55.5% versus 61.0%). Comparing African Americans in Virginia with Caucasian females in Virginia who were non-dually enrolled shows an even greater disparity of 7.6% (55.5% versus 63.1%). The project's targeted areas in Virginia had slightly higher rates of mammography when compared with the state. The disparities between African Americans and all Caucasians and non-dual eligible Caucasians in the targeted areas are slightly larger than the statewide disparities between these groups, 6.8% (58.2% versus 65.0%) and 8.1 % (58.2 versus 66.3%), respectively.

Study Design:

The project design is a pretest/posttest design with intervention and comparison groups. The intervention group was African American female beneficiaries age 50-67 in 18 eastern Virginia counties. The reference group as defined by the Centers for Medicare & Medicaid Services (CMS) is non-dually enrolled Caucasian female beneficiaries aged 50-67 in 18 target counties in eastern Virginia. The comparison group is the Centers for Medicare & Medicaid Services (CMS) national control group.

Interventions:

Interventions included working with the media, partnerships and physicians. In the media, VHQC aired Public Service Announcements (PSAs), where VHQC staff was interviewed on live radio call-in sessions and asked questions and had articles printed in local newspapers. VHQC leveraged longstanding partnerships with coalitions, professional organizations, health care providers and state agencies to efficiently and effectively educate Medicare beneficiaries about the importance of mammograms. VHQC provided partners such as the local Breast & Cervical Cancer Early Detection Program Coordinators (BCCEDP), with educational materials and worked with the Community Lay Outreach Workers (CLOWs) who locate women in the community who have not received a mammogram. In targeting physicians, VHQC contacted physicians' offices by telephone and mail, sending them culturally sensitive material about the importance of referring African American women for mammograms.

Lessons Learned:

- VHQC learned the importance of facilitating efforts that focus on integrating the important message about mammography into existing programs.
- The development and implementation of culturally sensitive interventions have proven to be effective for reaching the underserved population.
- Evaluation of the intervention needs to be a component of the study design.
- For positive impact, the intervention needs to be targeted to the individuals who, historically, are not getting mammograms.
- Past work with partners allowed VHQC to become a trusted source for collaborative partners.
- Partnering with the local BCCEDP was an efficient, cost-effective way to distribute educational material.
- Identifying ourselves as the Quality Improvement Organization contracted by CMS opened the door to talk with physician office staff.
- Contacting the physician directly was not an effective approach for intervention implementation. VHQC worked with nurse managers or practice managers as well as the physician to ensure the materials were being utilized.

Results:

The absolute improvement for the target population was 1.1 percent. The reduction in disparity was 3.3 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	58.2	59.3	1.1
Reference Population	66.3	64.1	-2.2
Disparity	8.1	4.9	
Reduction in Disparity			3.3

Contact Information:

Telephone: 804.289.5320

Fax: 804.289.5324

4510 Cox Road

Suite 400

Glen Allen, VA 23060



Vermont

Quality Improvement Organization:	Northeast Health Care Quality Foundation
Target Population:	Rural
Clinical Topic:	Heart Failure
Indicator:	LVF assessment

Project Objectives:

To decrease the disparity in the performance of LVF assessment in selected hospitals in Vermont that demonstrated a disparity and had sufficient admissions to represent more than 25% of the specific population.

Background:

The intervention group was comprised of four rural hospitals in Vermont that demonstrated a disparity with the urban institutions in the state. There is little or no access to specialty services, particularly Cardiology, due to the low volume and distant nature of these facilities. The support and administrative resources are also scarce. NHCQF worked with institutions to increase knowledge and use of current standards of care.

Study Design:

The study design was to analyze hospitals and select rural hospitals in Vermont that demonstrated a disparity and had sufficient admissions to represent more than 25 percent of the population. Based on data calculated from past work, the disparity between the intervention and reference groups was 7.4 percent. During the recruitment phase, the expectations were outlined and commitment and support was established.

Interventions:

As part of the interventions design phase, NHCQF assisted the hospitals with root cause analysis of case failures, which provided valuable information to identify areas for improvement. Later, NHCQF supported the hospitals in developing individual hospital action plans for system changes and best practice models were shared and action plans implemented. Interim data were abstracted, tracked, analyzed, and disseminated to assess the effectiveness of the action plans. Action plans were amended as necessary. NHCQF staff were available to each institution for individual and group consultation and on site visits with quality, medical and administrative staff to facilitate necessary internal changes to produce improvement. NHCQF also worked with hospitals on the effects of LVF assessment on patient care and discussed access to Echocardiographic services after patient discharge.

Lessons Learned:

- The staff working with the process to be implemented were as important as the people who could mandate change.
- Realistic process goals, timelines and open lines of communications will enable a more cohesive team working together to accomplish the same goal.
- A letter to hospital Chief Executive Officer before and after each meeting allowed for better planning and attendance of key personnel at meetings. Another important element was being able to monitor progress and holding the staff accountable.
- Collaboration with each state's hospital association on a quarterly basis during which all hospitals were present provided rural hospitals an opportunity to hear what both urban and rural hospitals were working on and to learn from their peers.
- Utilizing a "one size fits all approach" did not work. Customizing the processes were needed to meet the specific needs of each facility.
- Becoming complacent with a successful organization and "assuming" they would continue to succeed based on previous outcomes is not an accurate assumption.
- Some facilities responded better to benchmark data and found it useful when their own data alone was not enough to create a reaction. On return visits, less time was spent on data abstraction and more on process assessment and improvement.
- Process analysis was well received and Quality Improvement staff were appreciative of the opportunity for their hospital to hear about the issues and learn about the measures from an outside, independent source.

Results:

The absolute improvement for the target population was 7.2 percent. There was a reduction in disparity of 5.1 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	74.3	81.6	7.2
Reference Population	83.2	85.4	2.1
Disparity	8.9	3.8	
Reduction in Disparity			5.1

Contact Information:
 Telephone: 603.749.1641
 Fax: 603.749.1195
 15 Old Rollinsford Rd.
 Suite 302
 Dover, NH 03820



Washington

Quality Improvement Organization:	Qualis Health
Target Population:	Rural
Clinical Topic:	AMI
Indicator:	Beta Blocker at arrival

Project Objectives:

To identify and reduce the targeted disparity in the provision of aspirin at discharge between rural and urban hospitals; to address the provision of Acute Myocardial Infarction (AMI) care statewide, according to the AMI quality measures for all rural hospitals that admit AMI patients; and to improve the health status and outcome of AMI patients living in rural areas of Washington State.

Background:

Preliminary baseline data revealed that only 80% of AMI patients in Washington State rural hospitals were prescribed aspirin at discharge. In several other states, rural hospitals have achieved 90% compliance with this quality measure, suggesting that an improvement in this process was possible in Washington State rural hospitals. AMI Medicare beneficiaries were discharged from 35 rural hospitals in Washington in 2003, and the twelve hospitals originally targeted for intensive intervention discharged more than 75% of those beneficiaries. These hospitals included small rural hospitals as well as several hospitals having over 200 beds located in counties having a rural designation.

Study Design:

The study design included a pre and post assessment of hospital statistics. The reference population consisted of AMI Medicare beneficiaries discharged from hospitals in urban counties in Washington State. The National Control Group (NCG) was defined as AMI Medicare patients discharged from hospitals in rural counties of states that did not implement a rural hospital AMI project. The target intervention group consists of AMI Medicare patients discharged from hospitals in 11 rural counties of Washington that project staff identified for intervention.

Interventions:

Qualis Health concentrated their intervention efforts on videoconferences, toolkits, Plan-Do-Study-Act (PDSA) workshops, and one-on-one consultations. There was a series of three videoconferences covering the care of AMI patients. Covered in these sessions was the use of the Institute for Healthcare Improvement's rapid-cycle process improvement techniques, and educational sessions designed to conceptualize and de-mystify the use of data for quality improvement in the rural setting. The videoconferences were live, interactive broadcasts conducted using the Inland TeleHealth Network facilities, to which many of the rural hospitals already subscribed and used routinely. Qualis Health also planned and developed a three-ring bound toolkit, which was distributed to every rural hospital. A separate series of IHI-like PDSA workshops was planned to introduce and teach the IHI rapid process improvement methodology to the rural QI personnel. Qualis Health staff also facilitated such workshops through the Rural Healthcare Quality Network, designed to further the process of data collection and interpretation begun with the videoconferences for those unfamiliar with this activity. Meaningful examples of implementation of quality improvement projects were offered, such as the institution of pre-printed discharge orders that ensured documentation of prescription of aspirin at discharge. Also presented was the process improvement value of small numbers of local case abstractions to track

the real effect of small rapid changes in systems and processes. Qualis Health provided publicity for rural hospitals Quality Improvement efforts by celebrating achievements in the Qualis Health monthly “Quality Letter” to give statewide recognition to their efforts. Qualis Health’s Medical Director provided physician education on quality measures to rural physicians via hospital medical staff presentations on site as a part of the videoconferences.

Lessons Learned:

- Time is needed to build a strong collaborative partnerships and develop solid intervention approaches.
- Site visits helped Qualis Health catalyze more effective collaborative working relationships with personnel at rural facilities.
- Workshops were well received and rural personnel were eager to learn new techniques and to learn how to use minimal data in the improvement of their own processes of care.
- Toolkits were a welcome provision to this setting, giving clarity to the goals, and providing dimensions and boundaries of the effort.
- The sample forms and pre-printed/standing order sets were welcome and precluded their having to completely originate such tools. Their provision by Qualis Health gave credibility to the contents and assured medical staff that “the bases had been covered,” thus preventing delays.
- Most felt that pneumonia or CHF was a more useful focus for quality improvement efforts, as these diagnoses are commonly treated in their facilities.

Results:

The absolute improvement for the target population was 4.3 percent. The reduction in disparity was 0.6 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	83.7	88.0	4.3
Reference Population	88.3	92.0	3.6
Disparity	4.6	4.0	
Reduction in Disparity			0.6

Contact Information:
 Telephone: 206.364.9700
 Fax: 206.368.2419
 10700 Meridian Avenue North
 Suite 100
 Seattle, WA 98133-975



Wisconsin

Quality Improvement Organization:	MetaStar, Inc
Target Population:	African American
Clinical Topic:	Diabetes
Indicator:	Lipid Profile

Project Objectives:

To increase the proportion of African American beneficiaries with diabetes who have a lipid panel at least once every two years and to reduce the disparity in lipid panel testing between African American and white beneficiaries living in Wisconsin.

Background:

According to the Wisconsin Diabetes Prevention and Control Program, diabetes and its complications most heavily affect the elderly and certain racial and ethnic groups including African Americans, Hispanics, Native Americans, and Alaska Natives. In Wisconsin, approximately 18 percent of the 65 and older population has diabetes, and African Americans are 1.5 times more likely to have diabetes than whites.

Study Design:

The project design is a pre-post test design, comparing the indicator rates at baseline with the Centers for Medicare & Medicaid Services (CMS's) remeasurement periods. MetaStar also compared the indicator rates of the intervention group with the indicator rates of a contrast group.

Interventions:

MetaStar conducted multiple interventions focusing on African Americans and providers who treat them. MetaStar's staff assisted in the implementation of a collaborative where participants in the collaborative learned about ways to make their office practice more effective and encouraged each participant to implement a registry. MetaStar also recruited providers to participate in a special track that focused on reducing the lipid disparity between African American and non-African American Medicare beneficiaries with diabetes. In working with Nursing Homes, MetaStar provided standing orders, diabetes resources and a diabetes education session to a pilot nursing home. A physician consultant was hired to work directly with targeted physicians to gain access to key providers and offer them resources to improve their rates where necessary. MetaStar worked with the Wisconsin Diabetes Prevention and Control Program to coordinate Diabetes Sundays. MetaStar developed a program called "Food for Mind, Body and Soul" to train church volunteers about cardiovascular health, lipid control, healthy food preparation, and how to plan and implement a health "event" at their church. Participants were provided with packets of materials and ideas that were to be shared with the members of their churches. Each church promised to pursue at least one health event in the upcoming year. Participant evaluation of the program was very positive. Nine churches participated in the program. Most of the churches held a food demonstration focusing on lipids as their follow-up health event. One church encouraged the lipid message by holding a health fair, creating a series of inserts for the church bulletin and holding recipe tastings. MetaStar staffed a booth at Women of the World, a free conference for women of color in Milwaukee where Soul Food Recipe card packets, *America's Adult Health Guide: Health Begins with You* pamphlets, and "Eat Healthy: Cut Your Risk for Heart Attack and Stroke" brochures were distributed. MetaStar has developed a series of simple, focused, culturally appropriate messages about lipid panels and their importance in assessing one's diabetes and cardiovascular health and provided information on exercise and

its importance in controlling lipid levels. This series of messages was incorporated into a brochure that has been distributed through churches, clinics, seminars and health fairs. The concept from the brochure was expanded into posters and bookmarks. MetaStar developed a Lipid Training Session for coalition members to educate them about the lipid disparity in Southeastern Wisconsin, lipid testing, lipid panel results, and how lipid control relates to diabetes management and cardiovascular disease. The Wisconsin Diabetes Control Program and the Wisconsin chapters of the American Heart Association and the National Kidney Foundation, partnered with MetaStar to develop and implement a training session for coalition members and other community workers. MetaStar also designed and mailed a postcard to educate the beneficiaries about the need for patients with diabetes to monitor their lipid levels and also encouraged the beneficiaries to ask their provider for lipid testing. As an incentive to get a lipid test and also as a means to study the effectiveness of the postcard, beneficiaries were offered a free gift if they returned part of the postcard to MetaStar indicating that they had their lipid level checked.

Lessons Learned:

- Although these coalition members have expertise in various health-related issues, they do not have the background knowledge to educate community members effectively about lipid testing.
- Although the nursing home that participated was interested in the materials, it was clear that with competing priorities, diabetes was not the focus of the nursing home staff.

Results:

The absolute improvement for the target population was 22.8 percent. The reduction in disparity was 13.0 percent.

Table1. Results of Targeted Intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	57.7	80.5	22.8
Reference Population	79.2	89.0	9.8
Disparity	21.6	8.5	
Reduction in Disparity			13.0

Contact Information:
 Telephone: 608.274.1940
 Fax: 608.274.5008
 2909 Landmark Place
 Madison, WI 57313



West Virginia

Quality Improvement Organization:	West Virginia Medical Institute (WVMI)
Target Population:	Rural
Clinical Topic:	Immunization
Indicator:	Influenza (Flu) vaccine

Project Objectives:

To reduce the disparity in influenza vaccination rates between West Virginia Medicare beneficiaries living in targeted rural counties and urban counties.

Background:

The low influenza immunization rates seen in the rural target counties' population represented an enormous opportunity for improvement. WVMI had previous successful experiences improving influenza immunization rates among Medicare beneficiaries, including the general population, ESRD patients, dually enrolled beneficiaries, and nursing home residents.

Study Design:

The study design was pre-post assessment. For both the beneficiary intervention and the physician office intervention, influenza vaccination rates were measured before and after the intervention using claims data. Control groups were used for both interventions, consisting of beneficiaries and physicians in non-targeted rural counties.

Interventions:

Interventions focused on both the provider and beneficiary. The provider interventions included partnering with churches and church-affiliated organizations in the targeted area to make announcements from the pulpit or post on the church bulletin board. In addition, other partnerships were formed with the Faith in Action coalition and the West Virginia Council of Churches. WVMI delivered church resource kits aimed at increasing immunizations and worked with the Partnership of African American Churches. A total of 37 churches and 4 Faith in Action regional offices agreed to distribute and/or display immunization materials. Another source for targeting interventions was the West Virginia Bureau of Senior Services. This state government agency is responsible for running Senior Centers in each county, as well as for transporting seniors to and from these centers. Issues concerning national vaccine shortages in 2004, forced WVMI to curtail provider planned interventions. WVMI worked closely with the WV State Health Department, Vaccine Prevention Program to send information on roster billing to local health departments and worked with them to encourage health departments presently not billing for influenza immunizations to use roster billing. During the 2004 influenza vaccine shortage, WVMI worked closely with this agency and providers to attempt to find available vaccine for those in high-risk groups. A total of five Health Departments in the targeted area agreed to distribute and/or display materials. WVMI partnered with nursing homes and home health agencies in the targeted counties. An "Influenza Immunization and Pneumococcal Pneumonia Commitment Form" was developed for use with the nursing homes, physician offices, and home health agencies to document planned interventions by these partners/collaborators. A total of 19 physicians' offices signed this agreement. Additionally, a total of nine nursing homes and three home health agencies agreed to distribute and/or display immunization materials. WVMI also partnered with the West Virginia Pharmacy Association to target pharmacies in the intervention counties to distribute information on influenza immunizations. Where feasible, these pharmacies provided immunization services to beneficiaries. A total of 13 pharmacies in the intervention

counties distributed and displayed these immunization materials. Another beneficiary education intervention consisted of mass media messages and communication using letters with specific messages. WVMI ran television and 4,100 radio public service announcements that were culturally appropriate for older, rural Appalachia residents. There was a series of three reminder brochures/letters mailed to approximately 45,000 beneficiaries in the targeted counties urging them to get the flu shot. Billboards were also placed in the nine targeted counties. Additionally, WVMI conducted an intervention targeting the repayees, persons who receive Medicare benefits on behalf of a physically or mentally disabled beneficiary. There were two mailings targeting a total of approximately 1,000 beneficiaries with repayees in the targeted rural counties.

Lessons Learned:

- Elderly beneficiaries are difficult to reach.
- Working with Faith-based partners proved to be very beneficial.
- Stabilizing the influenza vaccine supply is an absolute necessity.

Results:

The absolute improvement for the target population was 0.4 percent. There was a reduction in disparity of 4.2 percent.

Table1. Results of Targeted intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	46.5	46.9	0.4
Reference Population	54.2	50.5	-3.8
Disparity	7.8	3.6	
Reduction in Disparity			4.2

Contact Information:
 Telephone: 304.346.9864
 Fax: 304.346.9863
 3001 Chesterfield Place
 Charleston, WV 25304



Wyoming

Quality Improvement Organization:	Mountain-Pacific Quality Health Foundation
Target Population:	Rural
Clinical Topic:	Pneumonia
Indicator:	Blood Culture prior to antibiotic received in hospital

Project Objectives:

To reduce the number of missed opportunities for proper protocol in drawing blood for culture prior to initial antibiotic dose in persons hospitalized for pneumonia at nine Wyoming Critical Access Hospitals (CAH)s.

Background:

From past years, pneumonia hospitalizations in rural hospitals have accounted for 74.1% of all Wyoming pneumonia hospitalizations. Of the 1,288 yearly rural pneumonia hospitalizations, 28.9% (372) occurred in CAHs. Baseline indicator data indicates an 8.2% disparity for rural hospitals compared to urban hospitals. The nine CAHs demonstrate a 17.6% disparity with the urban hospitals.

Study Design:

The design for assessing impact was a simple numeric comparison of change between baseline and remeasurement in the two subpopulations.

Interventions:

The Mountain-Pacific Quality Health Foundation believes that a multi-faceted approach to interventions was most effective. There were broad educational programs outlining the importance and efficacy of implementing inpatient quality improvement in rural settings. The Mountain-Pacific Quality Health Foundation also arranged for peer-to-peer physician and quality improvement professional learning as needed, as well as one-on-one technical assistance. The interventions also included evidence-based literature to support inpatient blood cultures prior to administration of an antibiotic for all CAH hospitals. Initially, the Wyoming Field staff introduced the project during onsite visits. This was followed by a Webex presentation on pneumonia and importance of collecting blood cultures featuring Dr. Dale Bratzler and local expert Dr. David Souvenir. There was an Open House for all CAH hospital CEOs. The Mountain-Pacific Quality Health Foundation also introduced a data collection tool to Wyoming CAH facilities for tracking quality improvement activities.

Lessons Learned:

- Using national and local experts as speakers established credibility with the local practitioners.
- The emergence of public reporting for hospitals convinced a number of them that they needed to improve.
- Competition is a motivator – each hospital wanted to achieve greater results than the ‘urban’ hospitals.
- Quality Improvement professionals in the CAH setting were intimidated by the data collection format and performance requirements.
- WebEx learning sessions proved to be popular allowing hospital staff to remain at their sites while gaining knowledge to aid in clinical and quality improvement processes.

Results:

The absolute improvement for the target population was 12.6 percent. There was a reduction in disparity of 9.1 percent.

Table1. Results of Targeted intervention

	Baseline Rate (%)	Remeasurement Rate (%)	Absolute Improvement (%)
Targeted Population	75.9	88.5	12.6
Reference Population	93.5	97.0	3.5
Disparity	17.6	8.5	
Reduction in Disparity			9.1

Contact Information:

Telephone: 307.637.8162

Fax: 307.637.8163

2206 Dell Range Blvd

Suite G

Cheyenne, WY 82009



The material was prepared by QSource under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services, as the Underserved Quality Improvement Organization Support Center (UQIOSC). For question or comments about this document, please contact the UQIOSC at 800.528.2655 or via e-mail at tn_uqiosc@tnqio.sdps.org.

