Report to Congress

The Administration, Cost, and Impact of the Quality Improvement Organization Program for Medicare Beneficiaries for Fiscal Year 2019

EXECUTIVE SUMMARY

Section 1161 of the Social Security Act (the Act) requires the submission of an annual report to Congress on the administration, cost, and impact of the Quality Improvement Organization (QIO) Program during the preceding fiscal year. This report fulfills this requirement for FY 2019. The statutory mission of the QIO Program is set forth in Title XVIII of the Act-Health Insurance for the Aged and Disabled. More specifically, section 1862(g) of the Act states that the mission of the QIO Program is to improve the effectiveness, efficiency, economy, and quality of services delivered to Medicare beneficiaries and to ensure that those services are reasonable and necessary. The quality improvement strategies of the Medicare QIO Program are implemented by area and task specific QIO contractors, who work directly with health care providers and practitioners in their geographic service areas (which generally encompass multiple states, including the District of Columbia, or territories).

On August 1, 2014, the Centers for Medicare & Medicaid Services (CMS) launched the QIO Program's 11th Statement of Work (SOW) to enhance the quality of services provided to Medicare beneficiaries. The five-year contracts are divided between two sets of QIO contractors: Beneficiary and Family Centered Care (BFCC)-QIO serving the Medicare program's case review needs (see table 1) and Quality Innovation Network (QIN)-QIO supporting healthcare delivery professionals and systems as they perform quality improvement work (see table 2). This RTC 2019 covers the period of FY 2019 and therefore does not include data from the 12th SOW.

In FY 2019, QIO Program expenditures totaled approximately $911 million. FY 2019 covered the 52nd through 60th months of the 11th SOW contract. This report will describe the main activities included in the 11th SOW and the suggested targets of the aims; and include tables that illustrate QIOs' performance compared to performance criteria. The FY 2019 report will describe the measures, targets and results for the 5th year evaluation.

At the time of coverage for this report, 2017 MIPS data is used.

Table 1: BFCC-QIOs by Region and State

Region	QIO	States
1	Livanta	ME, VT, NH, MA, RI, CT, NJ, PA, NY, PR, VI
2	KePRO	DE, MD, WV, VA, NC, SC, GA, FL, DC
3	KePRO	MT, WY, UT, CO, NM, TX, OK, ND, SD, AR, LA, TN, KY, MS, AL
4	KePRO	MN, WI, MI, IA, NE, KS, MO, IL, IN, OH
5	Livanta	AK, WA, OR, ID, CA, NV, AZ, HI

Table 2: QIN-QIO by Name and States

QIN-QIO Name	States
Great Plains Quality Innovation Network	KS, ND, NE, SD
TMF	AR, MO, OK, TX, PR
Lake Superior Quality Innovation Network/Stratis Health	MN, WI, MI
Telligen	CO, IA, IL
HealthInsight	NM, NV, OR, UT
Alliant-Georgia Medical Care Foundation	GA, NC
atom Alliance	AL, KY, MS, TN, IN
Mountain Pacific Quality Health Foundation	AK, HI, MT, WY
Atlantic Quality Improvement Network	DC, NY, SC
Quality Insights Quality Innovation Network	DE, LA, NJ, PA, WV
VHQC	MD, VA
Qualis Health	ID, WA
Health Services Advisory Group	AZ, CA, FL, OH, VI
HealthCentric Advisors	CT, MA, ME, NH, RI, VT

Please note that on October 10, 2017 due to the impact of category 5 hurricanes: Irma and Maria, CMS issued technical direction letters (TDLs) to the QIOs pursuant to the terms of the QIO contracts. These TDLs waived the evaluation metrics for all tasks, (except for those related to Task E.1), pertaining to the territory of Puerto Rico (PR) and the U.S. Virgin Islands (VI). Therefore, measures for PR and VI for that time period are not included in this report.

BACKGROUND

The statutory provisions governing the QIO Program are in Part B of Title XI of the Act. Its statutory mission is set forth in Title XVIII of the Act-Health Insurance for the Aged and Disabled. Specifically, section 1862(g) of the Act states that the mission of the QIO Program is to improve the effectiveness, efficiency, economy, and quality of services delivered to Medicare beneficiaries and to make sure that those services are reasonable and necessary. Part B of Title XI of the Act was amended by section 261 of the Trade Adjustment Assistance Extension Act of 2011 (Trade Bill) , which made several changes to the Secretary's contracting authority for QIOs beginning with contracts entered into or renewed after January 1, 2012. These changes include separating the functions of the BFCCs and QIN-QIOs, modifying the eligibility requirements for QIOs, the term of QIO contracts, the geographic area served by QIOs and updates to the functions performed by QIOs under their contracts. The contracts for the 11th SOW are subject to the changes made by the Trade Bill.

I. PROGRAM ADMINISTRATION

Description of Quality Improvement Organization Contracts

By law, the mission of the QIO Program is to improve the effectiveness, efficiency, and quality of services delivered to Medicare beneficiaries. Based on this statutory requirement, and CMS' program experience, CMS identified the core functions of the QIO Program as:

- Improving quality of care for Medicare beneficiaries;
- Protecting the integrity of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds by ensuring that Medicare pays only for services and goods that are reasonable and necessary and are provided in the most appropriate setting; and
- Protecting beneficiaries by expeditiously addressing: individual complaints; reviews or appeals from provider notices of discharge or termination of services; violations of the Emergency Medical Treatment and Labor Act (EMTALA); and other related responsibilities articulated in the Act and implementing regulations.

The QIOs are now categorized and known as BFCC-QIOs and QIN-QIOs, depending on the QIO functions that they perform. QIOs are private, mostly not-for-profit, organizations staffed by doctors and other health care professionals trained to review medical care and help beneficiaries with complaints about the quality of care and to implement improvements in the quality of care available throughout the spectrum of care. QIOs are reimbursed on a monthly basis, consistent with the Federal Acquisition Regulation.

QIOs Interacting with Health Care Providers and Practitioners

QIOs work with and provide technical assistance to health care practitioners and providers such as physicians, hospitals [including critical access hospitals (CAHs)], nursing homes, and home health agencies. QIOs also work with practitioners, providers, beneficiaries, partners, and other stakeholders to improve the quality of health care provided to beneficiaries through a variety of health care delivery systems and address beneficiary complaints regarding quality of care. For instance, a process called immediate advocacy involves direct communication between QIOs and beneficiaries in which the BFCC-QIOs try to address complaints raised by the beneficiary; through this process, QIO staff also work with providers to resolve miscommunication or other concerns voiced by the beneficiary or a family member. QIOs analyze data and beneficiary records to identify areas of improvements in care and ensure beneficiaries' voices are heard by addressing individual complaints and bringing their perspective into the improvement process.

Any provider or practitioner who treats Medicare beneficiaries and is paid under Title XVIII of the Social Security Act may have received technical assistance from a QIO and may be subject to review by the QIO in connection with Medicare participation. Interaction comes in a variety of forms including direct intensive QIO assistance, occasional contact with the QIO at professional meetings, visits to the QIO website, and/or QIO case reviews.

II. PROGRAM COST

Under federal budget rules, the QIO Program is defined as mandatory spending rather than discretionary spending because QIO costs are financed directly from the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds and are not subject to the annual appropriations process. QIO costs are subject to the apportionment process administered through OMB. In FY 2019, QIO Program expenditures totaled $910,830,403.14.

III. PROGRAM IMPACT

The QIO Program impacts Medicare beneficiaries on an individual basis and the beneficiary population as a whole. In 2019, Medicare covered over 61 million beneficiaries: over 52 million people age 65 or older and 9 million people of all ages with disabilities and with end-stage renal disease. The QIO Program completed the 5th year of the 11th SOW contracting period in July 2019. Data from national claims data along with other sources, show observed changes in important outcomes for Medicare beneficiaries as a result of the QIOs' efforts. Some of these observations are listed below for the period of performance of the 11th SOW contract. For process-type observations, the attribution to direct QIO work is positive (e.g., case review and DSME education). For clinical care, outcomes soley attributed to direct QIO work is extremely difficult to assess, although the QIOs did contribute to these improved outcomes.

Outcomes directly attributable to QIO work:

- The BFCC-QIOs conducted 1,076,326 case reviews (including 2-midnight hospital stay reviews) for beneficiary complaints, appeals and other review types
- 72,398 Medicare beneficiaries completed diabetes self- management education (DSME) classes representing achievement of 112% of the contract target (cumulative through 04/30/2019)
- For performance year 2017, 98.5% of providers who received technical assistance from QIN-QIO participated in in the Quality Payment Program, compared to the national participation rate of 91%

QIOs contributed to these improved outcomes:

- 105,266 readmission avoided in care coordination communities cumulative through 12/31/2018 with a cost savings of $1,354 million
- 54,516 adverse drug events avoided through 9/30/2018

The sections below provide additional information about QIO accomplishments and the impact on beneficiaries through FY 2019.

Beneficiary and Family Centered Care

The BFCC program focuses on statutorily mandated QIO case review activities, as well as on interventions to promote responsiveness to beneficiary and family needs; providing opportunities for listening to and addressing beneficiary and family concerns; providing resources for beneficiaries and caregivers in decision making; and using information gathered from individual experiences to improve Medicare's entire system of health care. Beneficiary-generated concerns provide an excellent opportunity to explore root causes of adverse health care outcomes, develop alternative approaches to improving care, and to improve beneficiary/family experiences within the health care system. Beneficiary and family engagement and activation efforts are needed to produce the best possible outcomes of care. These QIO beneficiary and family-centered efforts align with the National Quality Strategy (NQS), which encourages patient and family engagement.

Case review types include Quality of Care Reviews, EMTALA Reviews, reviews of provider discharge/termination of service decisions and denials of hospital admissions, Higher-Weighted

Diagnosis Related Group (HWDRG) Reviews, hospital inpatient short stay reviews (2-midnight reviews),and other review types. The QIO Manual includes discussion of the various case review types and provides additional detail and guidance on QIO responsibilities for the reviews (https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Internet-Only-Manuals-IOMs-Items/CMS019035).

CMS contracted Livanta LLC and KePRO as the two BFCC-QIOs organized among 50 states, the District of Columbia, and two territories, as shown in Figure 1. The five BFCC-QIO areas are depicted below.

Figure 1: Map of BFCC-QIO Region

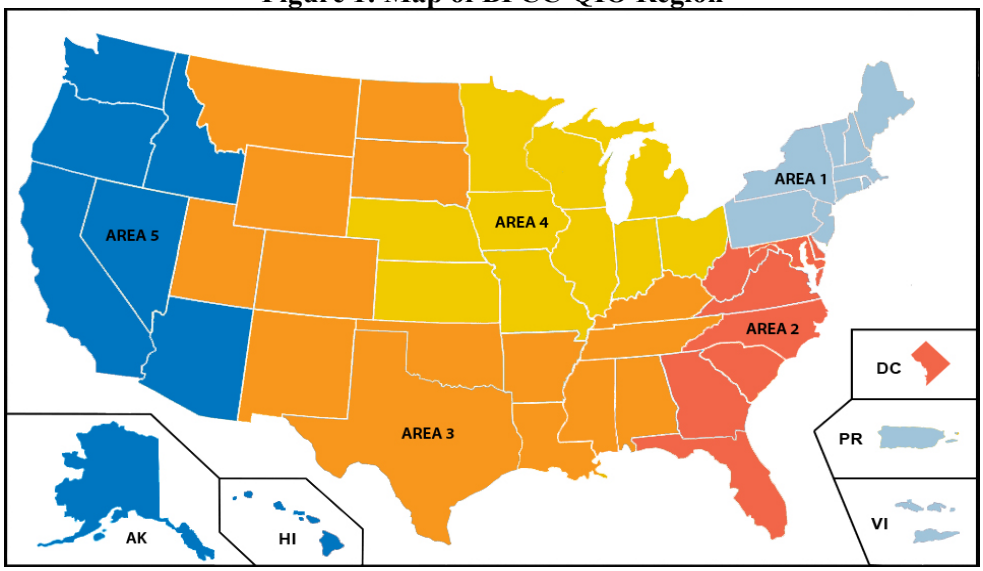

Table 3 provides national performance summary of the BFCC-QIO Program on three timeliness measures for the 60th month reporting period of the contract. As shown, the results of the timeliness analysis reveal that the BFCC-QIO performance exceeded Year 5 target requirements. As of July 2019, the BFCC-QIOs achieved national performance results greater than 98 percent on all three measures for the period from 08/01/2018 to 06/30/2019. The overall rate of timeliness is 99.2 percent.

Table 3: BFCC –QIO Annual Performance Criteria Measures

Measure	Target	Result
Timeliness of Beneficiary Complaints and Other Quality of Care Reviews	95%	99.6%
Timeliness of Discharge/ Service Termination Reviews	98%	98.1%
Timeliness of EMTALA and HWDRG Reviews	95%	99.9%

QIN-QIO QUALITY IMPROVEMENT AIMS

AIMS, MEASURES AND RESULTS

The Program's 11th SOW activities and services are divided into three aims intended to foster *better health, better care and better costs*. Each aim has an established set of quality measures to ensure that the QIOs are accountable for their performance. Please note that the work performed for each Aim is broken down into Tasks under the Task Order Contract for QIN-QIOs. There is no task A.

Aim: Healthy People, Health Communities: Improving the Health Status of Communities

Healthy People, Healthy Communities: Improving the Health Status of Communities includes tasks that promote effective prevention and treatment of chronic disease for Medicare beneficiaries. Health IT is also promoted. Three tasks included in the Aim are described below.

Task B.1: Improving Cardiac Health and Reducing Cardiac Healthcare Disparities

The purpose of this task is for the QIN-QIOs to work with home health agencies, physician's offices, clinics, and beneficiaries in collaboration with key partners and stakeholders to implement evidence-based practices to prevent heart attacks and strokes such as screenings for traditional and non-traditional risk factors, blood pressure self-management, dietary interventions and physical activity. It aligns with and supports the Department of Health and Human Services' Million Hearts® initiative's goal to prevent one million heart attacks and strokes by 2022. The Million Hearts® website is found at www.millionhearts.hhs.gov. While the QIN-QIO's work targets Medicare beneficiaries of all races and ethnicities, the QIN-QIOs intentionally target populations disproportionately affected by heart attacks and strokes (including African American, Hispanic, Asian, and Pacific Island populations). While the QIN-QIOs are charged with working to facilitate appropriate aspirin use and cholesterol management, success is measured by data results for blood pressure (BP) control and tobacco screening with cessation counseling.

Table 4 below identifies national performance targets and results for available validated data (01/01/17-12/31/17) as reported to the Merit-based Incentive Payment System (MIPS) Program by eligible clinicians, many of who work with QIN-QIOs to improve these results.

Table 4: Blood Pressure Control and Tobacco Screening/Cessation Results

Measure	Target	Result*
Percentage of patients whose blood pressure was adequately controlled at < 140/90 (NQF 0018)	65%	65.6%
Percentage of patients identified as tobacco users who were provided with cessation counseling intervention (NQF 0028 or 0028b)	65%	86.4%

* Results are based solely on the data reported for the patients the QIN-QIO recruited clinicians were managing and reporting on. 2017 data reporting includes newly validated data.

Task B.2: Reducing Disparities in Diabetes Care: Everyone with Diabetes Counts (EDC)

The purpose of this Task is to improve the quality of the lives for persons with diabetes, and to prevent or lessen the severity of complications resulting from diabetes. The QIN-QIOs promoted diabetes self-management education (DSME) by empowering Medicare beneficiaries with diabetes to take an active role in controlling their disease and improve clinical outcomes. The QIN-QIOs worked with healthcare providers, practitioners, certified diabetes educators, and community health workers to cultivate the knowledge and skills necessary to improve the quality of the lives for persons with

diabetes. The QIN-QIOs also worked with stakeholders on preventing or lessening the severity of complications resulting from diabetes such as kidney failure, amputations, loss of vision, heart disease, and stroke. The QIN-QIOs worked with communities most in need to establish sustainable diabetes education resources.

Table 5 below identifies national performance targets and results for the cumulative periods for each measure. Results are reported at the end of each five-year period.

Table 5: Reduce Disparities in Diabetes Care

Measure	Target	Result
Percentage of clinical outcome data obtained/collected for Medicare beneficiaries who completed diabetes self-management education classes through EDC. Clinical outcomes are HbA1c, Lipids, Eye Exam, Blood Pressure, Weight and Foot Exam[a]. Period: 08/01/2014 - 07/10/2019	10%	13.7%[b]
Percentage of physician practices recruited to participate in EDC Period: 8/1/2014 - 04/30/2019	100%	150.0%[c]
Percentage of new beneficiaries completing DSME Period: 08/1/2014 - 07/10/2019	100%	119.8%

* 72,398 total beneficiaries were impacted across Task B.2

[a] The goal for this measure is to obtain repeated measurements for the same beneficiaries longitudinally over time.

[b] This reflects the number and percentage of beneficiaries for whom the QINQIOs have obtained clinical data results, both pre and post diabetes self-management education completion.

[c] ** The result is calculated using the target physician practice number (1,918). QINs are able to achieve a result over 100% if they recruited and implemented elements for beneficiaries who were at high risk for long-term complications for diabetes with more settings than their target number.

Aim: Better Healthcare for Communities: Beneficiary-Centered, Reliable, Accessible and Safe Care

Initiatives associated with this Aim are designed to assist in achieving the goals of improving individual care throughout the course of the contract. Two of the six priorities that build on the broad aims of the NQS for quality improvement in health care include making care safer and making care more affordable for patients and governments by reducing the costs of care through continual improvement. Below are four specific initiatives associated with this Aim under the 11th SOW.

Task C.2: Reduce Healthcare Acquired Conditions (HACs) in Nursing Homes

The 11th SOW C.2 Reducing Healthcare-Acquired Conditions in Nursing Homes task order aims to improve the quality of care and quality of life for beneficiaries residing in nursing homes. The activities associated with this task include:

- The National Nursing Home Quality Care Collaborative (the Collaborative) is comprised of local communities of nursing homes, residents and families, and community stakeholders dedicated to improving nursing home care in a QIN-QIO region. The Collaborative identifies and implements solutions to decrease healthcare-acquired conditions and healthcare-associated

infections, increase resident satisfaction, improve quality of life and lower health care costs in the Medicare program. 12,217 nursing homes were recruited into Collaborative I and II, which represent approximately 78% of the nation's nursing homes.

- Continuation of the use of the Collaborative Quality Measure Composite Score composed of 13 National Quality Forum-endorsed quality of care measures to measure success and expanding the use of the Composite Score to identify progress in individual nursing homes and individual QIN-QIOs.

- Continuing the alignment of the QIN-QIO with the Partnership to Improve Dementia Care effort to drive-down the inappropriate use of Antipsychotic medications in Medicare beneficiaries in long-stay facilities.

- Through the *Clostridium Difficile* Infection (CDI) Reporting and Reduction Project, the QIN-QIOs enrolled 2,341 nursing homes in CDC's National Healthcare Safety Network (NHSN). Of the 2,341 nursing homes enrolled in NHSN, 2,292 nursing homes submitted CDI data to NHSN every month during the baseline period March 1, 2017 – December 31, 2017, exceeding the 5% goal recommended by the HHS HAI Action Plan in 2013. Nursing homes continued to report CDI data through December 31, 2018. Nationally, 2,077 or 89% NHSN Cohort nursing homes reported CDI data from 07/01/2018 to12/31/2018 period, a 3.2% increase from 2,005 in the previous reporting period, 01//01/2018 to 06/30/2018.

Table 6 identifies the evaluation measures and targets for the 60th month of performance requirements. The targets were set prior to the period of performance and are required for the 60th month. The dates indicated are the period of observation for results.

Table 6: Reduce HACs in Nursing Homes

Measure	Target	Result
Reduction in percentage of long-stay residents who received antipsychotic medications Period:10/01/2017 - 09/30/2018	15% Relative Improvement Rate	30.2%
Sum of percentages of one-star category target number recruited for collaborative I and II Period: 10/01/2014 - 03/31/2015 & 10/01/2016 – 03/31/2017	≥ 100%	134.0%
Sum of percentages of recruitment target number (RTN) recruited for collaboratives I and II Period: 10/01/2014 - 03/31/2015 & 10/01/2016 – 03/31/2017	≥ 100% of RTN	105.2%
50% of RTN will achieve the quality measure composite score of 6.0 or less by 1/2019 Period: 04/01/2015 – 03/31/2017 & 04/01/2017 – 09/30/2018	≥ 50% of RTN achieve score of no more than 6.00	65.3%

Measure	Target	Result
Percentage of Nursing Homes reporting CDI by NH-NHSN cohort Period: 07/01/2018 – 12/31/2018	80% NH-NHSN cohort target number	89.2%

Task C.3: Coordination of Care and Medication Safety

The purpose of this task is to improve hospital admission and readmission rates, and reduce adverse drug event rates by improving effective communication and the continuity and coordination of patient care using methods such as interoperable health IT. The QIN-QIO work is designed to improve the quality of care for Medicare beneficiaries who transition among care settings including home through a comprehensive community effort. These efforts aim to reduce readmissions following hospitalization and to yield sustainable and replicable strategies to achieve high-value health care, particularly for chronically ill and disabled Medicare beneficiaries. The QIN-QIOs continue to support the development of community coalitions for improving communication and the coordination of clinical decisions. A summary of the national performance targets and results for the 60th month of data collection during each specific period are presented in Table 7.

The targets were set prior to the period of performance and are required for the 60th month. The dates indicated are the period of observation for results.

Table 7: Coordination of Care*

Measure	Target	Result
Percentage of interventions implemented (for a minimum of 6 months) that show improvement (for a minimum of 5 interventions across the state/territory annually) Period: 11/1/2017 - 10/31/2018	60%	97.6 %
Percentage of 30-day readmissions per 1,000 Fee-for-Service (FFS) beneficiaries in cohorts A[a] B[b]& C[c] Period: 04/01/2018 - 03/31/2019	10 % relative improvement rate (RIR) cohort A 10% RIR cohort B 6% RIR cohort C	5.0% RIR 7.0% RIR 3.4% RIR
Percentage of admissions per 1,000 FFS beneficiaries in cohorts A, B & C Period: 04/01/2018 - 03/31/2019	7% RIR cohort A 7% RIR cohort B 4.2% RIR cohort C	6.3% RIR 7.0% RIR 4.9% RIR
Percentage of state/territory-wide 30-day readmissions per 1,000 FFS beneficiaries Period: 04/01/2018 - 03/31/2019	2% RIR	5.6% RIR
Percentage of state/territory-wide admissions per 1,000 FFS beneficiaries Period: 04/01/2018 - 03/31/2019	2% RIR	6.5% RIR

Measure	Target	Result
Increased community tenure[d] in state/territory-wide coalition. Period: 04/01/2018 - 03/31/2019	2 % RIR cohort A 2% RIR cohort B 1.2% RIR cohort C	0.29% RIR 0.22% RIR 0.21% RIR

***** 23,663,459 total beneficiaries were impacted across Task C.3

[a] Cohort A recruitment timeframe is 8/1/2014-12/31/2014.

[b] Cohort B recruitment timeframe is 1/1/2015-12/31/2015 (some overlap with cohort A).

[c] Cohort C recruitment timeframe is 1/1/2016-12/31/2016.

[d] The number of days beneficiaries spends in their home setting.

Task C.3.6: Adverse Drug Events Data Collection and Support

In the 11th SOW QIN-QIOs were tasked with improving medication safety and reducing adverse drug events (Task C.3.6). QIN-QIOs are required to recruit providers and practitioners and pharmacies that provide care for Medicare beneficiaries that are at high-risk for an adverse drug event. Medicare beneficiaries that were identified as high-risk are beneficiaries taking three or more medications including a high-risk medication, referenced in the HHS National Action Plan for adverse drug event prevention as opioids, diabetic agents, and anticoagulants. QIN-QIOs are working to implement or identify tools to increase surveillance of adverse drug events to help prevent them, improve medication safety by providing evidence based clinical information and best practices, and increase medication safety across the community as an integrated part of care transitions efforts. The QIN-QIO program developed a claims based method of identifying high-risk beneficiaries, adverse drug events, and hospitalizations for the high-risk population using Medicare claims data, including Medicare Part D data.

Specific goals under task C.3.6 are to improve care coordination and reduce adverse drug events for beneficiaries that are at high-risk for an adverse drug event. Table 8 identifies performance summary at the 60th month.

The targets were set prior to the period of performance and are required for the 60th month. The dates indicated are the period of observation for results.

Table 8: Medication Safety and Adverse Drug Event Prevention*

Measure	Target	Result
Rate of adverse drug events per 1,000 screened beneficiaries (Self- Reported) Period: 8/1/2017 -7/31/2018	Cohort A & B: 35% RIR Cohort C: 10% RIR	Cohort A & B: 18.0% RIR Cohort C:-2.0 % RIR*
Rate of adverse drug events per 1,000 high-risk medication (HRM) Medicare Beneficiaries in state/territory (Alternate-Claims Based) Period: 04/01/2017 – 03/3//2018	2% RIR	6.0% RIR
Rate of state/territory-wide 30-day readmissions per 1,000 HRM opioid Fee-for-Service (FFS) beneficiaries Period: 04/01/2017 – 03/31/2018	0.75% RIR	-3.0% RIR**
Rate of state/territory-wide 30-day readmissions per 1,000 HRM anticoagulant FFS beneficiaries	0.75% RIR	4.0% RIR

Measure	Target	Result
Period: 04/01/2017 – 03/31/2018		
Rate of state/territory-wide 30-day readmissions per 1,000 HRM diabetic FFS beneficiaries Period: 04/01/2017 - 03/31/2018	0.75% RIR	5.0% RIR
Rate of state/territory-wide admissions per 1,000 HRM opioid FFS beneficiaries Period: 04/01/2017 - 03/31/2018	0.75% RIR	-1.0%RIR**
Rate of state/territory-wide admissions per 1,000 HRM anticoagulant FFS beneficiaries Period: 04/01/2017 - 03/31/2018	0.75% RIR	-0.07%RIR**
Rate of state/territory-wide admissions per 1,000 HRM diabetic FFS beneficiaries Period: 04/01/2017 -03/31/2018	0.75% RIR	1.1% RIR

* 3,641,746 beneficiaries were impacted across Task C.3.6

**A negative RIR indicates an increase in the rate of adverse drug events, readmission, or admission reported in cohort in the state or territory, relative to the respective baseline for each cohort.

Task C.3.10: Antibiotic Stewardship (AS)

The scope of work relating to antibiotic stewardship was added to the section C.3 of the current QIN-QIO 11th SOW: "Promote Effective Communication and Coordination of Care", as Task C.3.10 Combatting Antibiotic Resistant Bacteria through Antibiotic Stewardship in Communities.

Antibiotic stewardship is a program by which facilities are able to monitor, reduce and prevent misuse and/or overuse of antibiotics within a healthcare system using a multidisciplinary team and strategic approach. Often seen in hospitals in different forms, antibiotic stewardship principles need to be expanded beyond the inpatient setting as part of a comprehensive patient care model. Part of the task of CMS' quality improvement program in this arena is to spread the principles of antibiotic stewardship among recruited outpatient settings at the point of care, where antibiotics are being prescribed. Therefore, QIN-QIOs are required under the 11th SOW to provide outreach, education and technical assistance to encourage the spread of antibiotic stewardship, directed to practitioners, pharmacists, healthcare system leadership as well as to recipients of care, the beneficiaries.

Table 9 below addresses the measure for the national performance target and result for the cumulative period: 10/1/2016-12/31/2018.

The targets were set prior to the period of performance and are required for the 60th month. The dates indicated are the period of observation for results.

Table 9: Antibiotic Stewardship

Measure	Target	Result
Percentage of recruited outpatient settings which have implemented an Antibiotic Stewardship program that meet and maintain minimum requirements*	80%	111.5 %**

* Minimum requirements are defined as meeting the core elements of antibiotic stewardship for outpatient settings as defined by the Centers for Disease Control and Prevention[1]

** The result is calculated using the target outpatient setting number (5,117; It was originally 5186, but we did not include the targets for PR and VI). QINs are able to achieve a result over 100% if they recruited and implemented all four core elements with more settings than their target number.

Aim: Better Care at Lower Cost

Task D.1: Quality Improvement through Quality Reporting Programs and Supporting Clinicians in the Quality Payment Program

The purpose of this task is to assist inpatient and outpatient hospitals, PPS-exempt Cancer Hospitals (PCHs), Inpatient Psychiatric Facilities (IPFs), Ambulatory Surgical Centers (ASCs), and eligible clinicians (as defined in Social Security Act Section 1861(r)) in improving their quality of care and efficiency of care through direct technical assistance, Learning and Action Networks (LANs), and outreach and education about CMS value based payment and quality reporting programs. QIN-QIOs are working to reach all of those eligible clinicians that are not being supported by the Small, Underserved, and Rural Support contracts or the Transforming Clinical Practice Initiative. QIN-QIOs ensure that MIPS eligible clinicians receive support to help them successfully participate in the Quality payment Program. QIN-QIOs assist eligible clinicians with their transition from the existing quality programs into the MIPS Program by incorporating a service-oriented approach when providing technical assistance, education and outreach, distribution and dissemination of learning modules, and LAN activities. QIN-QIOs ensure eligible clinicians have opportunities to engage in broad-reaching technical assistance that maximizes benefit to the customer and requires minimal effort. The QIN-QIOs continue to work to improve healthcare by identifying gaps and opportunities for improvement in quality, efficiency, and care coordination.

Table 10 presents the national key performance metrics for data collection during the 4th year of performance. Please note that there are no updates to D.1 measures for this reporting period.

The targets were set prior to the period of performance and are required for the 60th month. The dates indicated are the period of observation for results.

In the table below, the denominator indicates all facilities that receive care. The numerator identifies those that improved in quality of care during the oberservation timeframe.

[1] See https://www.cdc.gov/antibiotic-use/community/pdfs/16_268900-A_CoreElementsOutpatient_508.pdf

Table 10: Quality Improvement through Quality Reporting Programs and Supporting Clinicians in the Quality Payment Program*

Measure	Target	Result
Percentage of ASC, IPF and CAH facilities receiving technical assistance that demonstrate improvement in quality-of-care measures Period: numerator: 1/1/2017-12/31/2017 denominator: 8/1/2014-6/30/2017	15%	89.7%
Percentage of eligible hospitals meeting measure thresholds for the Hospital Outpatient Quality Reporting Program Period: numerator: 7/1/2016-6/30/2017 denominator: 8/1/2014-6/30/2017	85%	100%
Percentage of eligible hospitals performing at or better than the median (50th percentile for Hospital Value-based Purchasing Program) Period: numerator: 1/1/2017-12/31/2017 denominator: 8/1/2014-6/30/2017	55%	95.4%
Percentage of customers referred to QIN-QIOs by Quality Payment Program services center line that are contacted by the QIN-QIO within one business day of receiving the referral Period: 8/1/2017-7//31/2018	95%	100%

*185,148 providers were impacted across Task D.1 during this period

Task D.2. QIN-QIO-Proposed Projects that Advance Efforts for Better Care at Lower Cost

The Centers for Medicare & Medicaid Services uses Special Innovation Projects (SIPs) [2] to support QIN-QIOs in their respective services areas to work with communities to improve healthcare quality and efficiencies. Specifically, SIPs are two-year efforts rooted in specific QIN-QIO focus areas. SIPs are proposed to CMS through the QIN-QIO, by community advocates, organizers and groups engaged with local health issues. The SIP is intended to address a health issue the community finds acute but is less visible to high-level federal analytics.

The following outline the number of SIPs awarded and a brief description of its goals:

- In 2015, 16 SIPs were awarded to 10 regional QIN-QIOs to address issues of quality occurring within the QIN-QIOs' local service areas with the intent of potentially expanding the scope of quality improvements that had proven success in reducing harm, health care disparities and costs in limited geographic areas and that had not already been expanded more broadly. This approach ultimately provided a positive return on investment; linked value with quality; and encouraged utilization of alternative payment models by providers.

- In 2016, 20 SIPs were awarded to 12 regional QIN-QIOs. The topic areas include streamlining patient flow in health care settings; working with health plans and care coordination providers

[2] An innovation project is defined, in part, as work that CMS approves for the QIN-QIO to perform that is not defined under the 11th SOW.

on approaches to post-acute care that result in enhanced care management; increasing value, patient affordability and appropriate use of specialty drugs by applying evidenced based criteria to prescribing practices; addressing acute pain management in sickle cell patients; and utilizing big data analytics to reduce preventable harm in health care.

- In 2017, 14 SIPs were awarded to 11 regional QIN-QIOs. QIN-QIOs were encouraged to propose various topics that address issues of quality occurring within the QIN-QIOs' local service areas and focuses on interventions for which a moderate level of evidence regarding their effectiveness already exists.

SIP Outcomes

The majority of SIPs yielded positive results as reported through the Goal Accountability tool, designed to gain project specific information from each awardee and used to track and monitor progress through various stages of the interventions. Project interventions, outcomes, lessons learned, best practices, and a determination of scalability and sustainability were assessed on a continuous basis by CMS. For example, the Health Quality Innovators QIN-QIO conducted a 2016 Special Innovation Project titled "Stopping Sepsis in Virginia Hospitals and Nursing Homes," with the rationale that early identification of infections/early sepsis in the nursing home, coupled with quick, appropriate action would contribute to fewer cases of severe sepsis and fewer hospital admissions. Operating on a $444,000 budget, the project resulted in the following:

- Cost savings from 108 avoided admissions at $14,876 per admission
- Total cost savings of $4,087,801 from 8/2016 through 12/2018
- Net Savings of $3,642,803 (Actual Savings Minus SIP Budget)
- Return on Investment (ROI) of $9.19 saved for every $1 spent

Another example of the success of the 2016 SIPs was with the Quality Insights QIN-QIO's Opioid Misuse and Diversion SIP whose primary project focus was to decrease the number of Medicare FFS beneficiaries who:

- Filled an opioid prescription
- Filled an opioid prescription from multiple providers
- Filled a concurrent opioid prescription

Based on the work and interventions of this SIP, the outcomes are as follows:

- Opioid use was reduced by 86,706 beneficiaries QIN-QIO-wide during 8/2016 through 07/2019
- Based on an average cost of $85.31[3] per opioid prescription for Medicare beneficiaries, this equates to a reduction in opioid prescription cost to Medicare of $7.4 million dollars
- The level of funding/budget for this SIP was $630,507

[3] Aroke H, Buchanan A, Wen X, Ragosta P, Koziol J, Kogut S. (2018). Estimating the Direct Costs of Outpatient Opioid Prescriptions: A Retrospective Analysis of Data from the Rhode Island Prescription Drug Monitoring Program. J Manag Care Spec Pharm; 24(3):214-224. doi.org/10.18553/jmcp. 2018.24.3.214

Another example is the QIN-QIO IPRO's 2016 SIP which was geared towards the integration of the Management of Anticoagulation in the Peri-Procedural Period (MAPPP) application directly with electronic health records via active clinical decision support in pre-surgical visit clinician workflow. This SIP was extended in 2018 to address Chronic Kidney Disease (CKD). During this extension the QIO developed Chronic Kidney Disease (CKD) mobile applications for patients and clinicians. The Management of Anticoagulation in the Peri-Procedural Period (MAPPP) is a freely available smart phone application and online tool developed by the IPRO QIO, as part of the 2016 CMS Special Innovation Project award. The tool/app was designed to enable clinicians to easily determine whether, when, and how to stop and restart the use of warfarin and oral anticoagulants during elective surgery and other invasive procedures. The MAPPP app provides individualized guidance for management of anticoagulant medications based on patient thrombosis (blood clot) risk and specific procedural bleeding risk and has been made. The significance of this unique tool/app is that it was developed by a QIO and serves as first time evidence-based guidance on this critical topic, which has been made available in an easy-to-use, widely availableapplication.

The results of this project include the following:

- 16.7% RIR reductions in post-operative bleeding and thromboembolic anticoagulation related adverse drug events (ADEs)
- Avoided 145 ADEs resulting in $425,167 in Medicare payments avoided
- ROI of $1.40 savings per $1 investment

Task E.1: Quality Improvement Initiatives (QIIs) Technical Assistance

The purpose of this task is to improve the quality of health care for Medicare beneficiaries by providing technical assistance to providers and practitioners; task E.1 serves all the Aims of the 11th SOW. The QIN-QIO improves healthcare quality by assisting providers and/or practitioners in identifying the root cause of a concern, developing a framework in which to address the concern, and improving a process or system based on their analyses. A Quality Improvement Initiative (QII) is any formal activity designed to serve as a catalyst and/or support for quality improvement that uses proven methodologies to achieve these improvements. The improvements may relate to safety, healthcare, health and value and involve providers, practitioners, beneficiaries, and/or communities.

A QII may consist of system-wide and/or non-system-wide changes and may be based on one or more confirmed concerns. Additionally, the QIN-QIO collaborates with the BFCC-QIO to improve Beneficiary ("Patient") and Family Engagement in healthcare quality improvement efforts and actively supporting projects aimed at shared decision-making with beneficiaries, families, and caregivers. QIIs may also be based upon or responsive to referrals made by other contractors in the QIO Program.

The general desired outcomes for this task are to support providers and practitioners to develop and implement quality improvement initiatives that achieve the desired established metric outcome, provide technical assistance and educational interventions. It is expected that any request or referral that is submitted be addressed timely and by using proven methodologies to achieve the best overall outcomes for beneficiaries.

Table 11 summarizes the pace of technical assistance initiation to providers and practitioners and the rate of success for QIIs for the performance results from 8/1/2017 through 4/30/2019.

Table 11: QII Technical Assistance Evaluation Measure*

Measure	Target	Result
Percentage of QIIs initiated within 30 days of the receipt of a referral or a request for QII technical assistance	90%	99.3%
Percentage of QIIs successfully resolved	80%	100%

* 67 QIIs were conducted during this period

Task F.1: Improving Medicare Beneficiary Immunization Rates through Improved Tracking, Documentation, and Reporting with a Special Focus on Reducing Immunization Health Care Disparities

Immunization rates among adults have historically been low. Immunization rates vary in the Medicare population. While 66 percent of the Medicare population has been immunized for influenza only 8 percent has been immunized for tetanus and diphtheria boosters. There is an even greater variation between racial and ethnic groups. For example according to the National Health Interview Survey (2015), white adults aged 65 years and older had a pneumococcal immunization rate of 68.1 percent, whereas Asian adults aged 65 years and older had a rate of 49 percent; similarly, white, non-Hispanic adults aged 65 years and older had an influenza immunization rate of 50.2 percent while black, non-Hispanic adults had a rate of 41.7 percent.

The focus of this task is on improving the assessment and documentation of Medicare beneficiary immunization status, increasing overall immunization rates, and reducing the immunization disparities. This work also supports the National Vaccine Advisory Committee Standards for Adult Immunization Practice and the adult immunization recommendations of the Advisory Committee on Immunization Practices. Additionally, there is evidence annual influenza immunization decreases morbidity and mortality in persons with cardiovascular disease. As such, QIOs working on this task are expected to work closely with the providers and practitioners recruited in Task B.1 (Improving Cardiac Health and Reducing Cardiac Healthcare Disparities) to address immunization disparities.

Below are results for task F.1 showing performance summary data of the improved Medicare Beneficiary Immunization Rates (table 12) for the 01/01/2018 to 12/31/2018 reporting period.

Table 12: Improved Immunization Rates*

Measure	Target	Result
Percentage of providers and practitioners recruited	100%	All reporting QIOs (36/36) met the January 2019 contract evaluation criterion (100%). All QINs (14/14) achieved the January 2019 contract evaluation criterion (100%).

Measure	Target	Result
Percentage of Medicare beneficiaries recruited	100%	All reporting QIOs (36/36) met the January 2019 contract evaluation criterion (100%) All reporting QINs (14/14) achieved the January 2019 contract evaluation criterion (100%)
Percentage of Medicare beneficiaries recruited receiving pneumonia vaccination	100%	All reporting QIOs (36/36) met the January 2019 contract evaluation criterion (100%). All QINs (14/14) achieved the January 2019 contract evaluation criterion (100%).
Percentage of patients aged 6 months and older seen for a visit between October 1 and March 31 who received an influenza immunization or who reported previous receipt of an influenza immunization (NQF #0041) *NQF: 0041 measures flu immunization and includes all people age 6 months and older. The results for the claims population within this report will only include Medicare beneficiaries age 65 and older.	70%	All reporting QIOs (36/36) met the January 2019 contract evaluation criterion (70%). All reporting QINs (14/14) achieved the January 2019 contract evaluation criterion (70%).
Percentage of home health episodes of care during which patients received influenza immunization for the current flu season (NQF #0522)	70%	All reporting QIOs (36/36) met the January 2019 contract evaluation criterion (70%). All QINs (14/14) achieved the January 2019 contract evaluation criterion (70%).
The percentage of Patients aged 65 years and older who have ever received a pneumococcal vaccination (NQF #0043)	75%	All reporting QIOs (36/36) met the January 2019 contract evaluation criterion (75%). All reporting QINs (14/14) achieved the January 2019 contract evaluation criterion (75%).
Percentage of home health episodes of care during which patients were determined to have ever received Pneumococcal Polysaccharide Vaccine (PPV) (NQF #0525)	75%	94.4% of QIOs (34/36) met the January 2019 contract evaluation criterion (75%).

Measure	Target	Result
		All QINs (14/14) achieved the January 2019 contract evaluation criterion (75%).
Percentage of Home Health Agencies recruited	100%	All reporting QIOs (36/36) met the January 2019 contract evaluation criterion (100%). All QINs (14/14) achieved the January 2019 contract evaluation criterion (100%).

*4,500,685 beneficiaries were impacted across Task F.1

Task G.1: Improving Identification of Depression and Alcohol Use Disorder in Primary Care and Care Transitions for Behavioral Health Conditions

Depression and alcohol use disorders are common behavioral health conditions in the Medicare population and are frequently under-identified in primary health care settings. Major depression is a leading cause of disability in the United States, complicates the treatment of other serious diseases and is associated with an increased risk of suicide. Alcohol use disorder is the most prevalent type of addictive disorder in those 65 and older and is often associated with depression. Additionally, challenges in effective care transitions for these and other behavioral health conditions contribute to high readmission rates and problems in treatment adherence.

Under this task, six regional QIN-QIOs provide technical assistance and educational interventions to help primary care providers screen for and increase the identification of people with depression or alcohol use disorder. In addition, QIN-QIOs work with inpatient psychiatric facilities to improve transitions of care and reduce readmissions for these and other patients after discharge. Assistance includes developing processes for successful transmission of discharge information to the follow-up practitioner, helping Medicare beneficiaries and their family/caregivers understand medications and treatment instructions, and coordinating communication between the inpatient facility, outpatient providers and Medicare beneficiaries.

Table 13 shows the currently available national performance results covering 1/1/2018 – 12/31/2018.

Table 13: Transitions Behavioral Health Conditions

Measure	Target	Result	Beneficiaries Impacted
Percentage of the annual Medicare case load* receiving screening for alcohol use	75%	24.3%	395,901
Percentage of the annual Medicare case load receiving screening for depression	75%	39.9%	650,682
30-day all-cause psychiatric readmission rate	≤ 23.9%	-1.7%**	279,666***

* Case load is the total number of beneficiaries seen by clinicians
** A negative rate difference reflects a increased readmission rate from baseline (23.9%)
*** Additional beneficiary readmissions

Task H.1: Transforming Clinical Practice Initiative (TCPI)

This task supports Better Cost: Lower Healthcare Costs for Communities. The Transforming Clinical Practice Initiative was designed to support more than 140,000 clinicians of various primary and specialty delivering care within various practice sizes, location, and specialty in achieving practice transformation and performance improvement through extensive collaboration, key change package concepts, technical assistance, and peer-based learning networks.

The table below represents national performance results covering 8/1/2018 – 7/10/2019 for this task. The measure evaluates "the percentage of submitted assessments completed", which corresponds to the QINs having to ensure that 95% of all fields of the assessment tool are addressed (answered) in order to appropriately evaluate where a practice falls within the phases of transformation.

Table 14: Transforming Clinical Practice

Measure	Target	Result
Percentage of submitted assessments completed *	95%	100%

* The measure looks at how much of the assessment tool a practice completes. The goal is that the QIN ensures that each practice completes at least 95% of the assessment tool.

Task I: American Indian Alaska Native Healthcare Quality Initiative (AIANHQI)

The American Indian Alaska Native Healthcare Quality Initiative (AIANHQI) was launched in Fall 2016. CMS awarded a contract to a QIN-QIO, to help support healthcare quality and capacity building for Indian Health Service (IHS) service units that participate in the Medicare program. The QIN-QIO has engaged with all 24 Medicare certified IHS service units, with varied degrees of engagement, data submission and uptake.[5] The Contractor has developed and deployed quality improvement technical assistance in key areas of importance to each facility including but not limited to specific areas of patient safety, accreditation readiness, quality assurance, strengthening organizational capacity, person and family engagement, patient experience, and emergency department efficiency. Building upon the service units quality improvement plans, the QIN-QIO has provided educational opportunities for all staff by facilitating access to educational resources, including expert facilitated webinars, an online system that allows anytime access to quality improvement training courses, coaching calls and bi monthly on-site technical assistance. Additionally, the QIN-QIO operates a well-received Leadership Learning and Action Network to further develop the skills of facility leadership.

In August, 2018 the CMS and the IHS agreed to pursue three aims, intended to focus efforts to produce measurable results while supporting the IHS service units in their own quality improvement plans. Specifically, the aims concentrated on instituting a robust Quality Assurance Performance Improvement (QAPI) program. A QAPI program establishes a critical body of work for the CMS survey process that would help build the foundation for future quality improvement, compliance and accreditation efforts; identification and implementation of systems to ensure smooth care transitions across the care continuum; and harm reduction. A comprehensive QAPI program consists of five

[5] The statutory definition for a service unit is an administrative entity of the Service or a tribal health program through which services are provided, directly or by contract, to eligible Indians within a defined geographic area, 25 U.S.C. § 1603(20).

elements: data collection and analysis, design and scope of the program, governance, patient safety and performance improvement.

A QAPI program takes a systematic, continuous, comprehensive, and data-driven approach to improving and maintaining safety and quality in a facility. Plans for QAPI programs involve the specification of standards for quality of service and outcomes, and the development of a process for assuring that care is maintained at acceptable levels in an on-going manner, while assessing how the subject organization is performing, including where and why facility performance is at risk or has failed to meet standards. In order to tailor the assistance provided to each of the participating hospitals, CMS's contractor divided those facilities into four "Tiers" depending on services provided, to reflect the different levels of resources available to participating hospitals, and their varying ability to offer the same types of services. Based on the new aims, the QIO collaborated with the hospitals to develop individually tailored measures for care transitions (related to emergency department efficiencies and required follow-up with patients after the discharge) and QAPI projects.

Table 15 represents process measures demonstrating the commitment made by CMS to either support the institution or fortify an existing QAPI plan. The institution and consistent review of QAPI plans by IHS and the QIO will assist facilities with identifying and implementing systems to ensure quality of care for the communities they serve and to remain in compliance with federal regulations and maintain accreditation. Results are from January 2019 – July 2019.

Table 15: Quality Assurance Performance Improvement Plan

Measure	Target	Result
All facilities have completed a comprehensive review of their QAPI program	100%	75%
Percentage of hospitals with a comprehensive QAPI program	100%	33%
Percentage of hospitals completing a monthly review of ER triage accuracy	100%	71%

Thirty-three percent of participating hospitals reported representation of all five required QAPI program elements.

The following table represents outcome measures to reduce patient harm in the Emergency Department. Baseline data points were obtained in January 2019 from the period of quarter 4 in 2016 to quarter 3 in 2018. Outcome results are from January 2019 – June 2019.

Table 16: Emergency Department Outcome

Measure	January 2019	June 2019
Length of time from patient entering the ER to initial triage	6.32 minutes	5 minutes
Time from triage to medical screening exam by a provider	34.68 minutes	20 minutes

CMS is committed to assisting the IHS in their work to ensure that its facilities provide high quality care to beneficiaries. The following process measures demonstrate progress in inpatient discharge planning and length of stay in the emergency department. Results are from January 2019 – July 2019.

Table 17: IHS Quality of Care

Measure	Target	Result
Percentage of patients with a follow-up phone call within two business days of discharge	100%	64%
Length of stay in the emergency department	120 minutes	86 minutes

Hospital Improvement and Innovation Networks (HIINs)

Sixteen national, regional, and state hospital associations, Quality Improvement Organizations, and health system organizations collaboratedto reduce hospital-acquired conditions and readmissions among 3,976 hospitals across the nation. This project ran for 42 months. The areas of focus included topics identified under the IQR program, top priorities for related to adverse drug events (specifically opioid safety, anti-coagulant safety, and glycemic control) in the inpatient setting set forth by the National Action Plan for Adverse Drug Event Prevention (NAP-ADE), Antibiotic Stewardship in support of the Combatting Antibiotic Resistant Bacteria (CARB) Action Plan and several others. An essential element of these strategies was attention to health equity and person and family engagement in an effort to improve outcomes for beneficiaries.

The overall goal of the HIIN award was to achieve a 20% reduction in all-cause patient harm from baseline, and a 12% reduction in 30-day readmissions as a population-based measure (readmissions per 1,000 beneficiaries). A primary goal of the quality improvement efforts of the HIINs was to support the development of a safety culture within participating hospitals, in order to foster optimal outcomes for patients served. Over the course of this project, measures and sampling strategies to evaluate all-cause patient harm continued to evolve. The project demonstrated improvement in outcomes, although less than the established goal. Using the original methodology in place from 2014, and including risk adjustment, the project met its 20% reduction target over 5 years. However, using the newer "all condition sample" methodology (which samples a larger range of patient charts, and was not available when this specific effort started) the project would not have met a 20% target for this period of time. Using the newer methodology, estimated all-cause harm rates declined approximately 6% over 5 years. For the 30 day readmission project, the preliminary data shows a 9.2% relative reduction in 30 day readmission rates for the Medicare population over the 5 year project, which falls short of the 12% goal that was set in 2014, but still confers benefit to tens of thousands of Medicare beneficiaries.

IV. CONCLUSION

Medicare beneficiaries, like all Americans, deserve to have confidence in their health care system. A system that delivers the right care to every person, every time, is the way to achieve that goal. The QIO Program, with a national network of knowledgeable and skilled independent organizations under contract with Medicare, is charged with identifying and spreading evidence based health care practices as well as conducting case reviews to make sure that the quality and standard of care provided to Medicare beneficiaries is satisfactory. The work of the QIO Program has been and continues to be a

factor for improvements in American health care. Assessment of program impacts were completed using a third party independent evaluation effort, along with CMS leadership perspectives.

The following is a summary of program impacts:

- Positive impacts were found in the *Coordination of Care* Task, which aimed to reduce harm when beneficiaries are transferred between healthcare settings (such as hospitals to skilled nursing facilities), or use multiple practitioners, and the *Improving Medicare Beneficiary Immunization Rates* Task which aimed to improve the assessment and documentation of Medicare beneficiary immunization status, increase overall immunization rates, and reduce immunization disparities.
- Other QIN-QIO initiatives showed partial evidence of success for specific sub-groups of beneficiaries or certain outcomes, but not necessarily for the Tasks as a whole. These initiatives included the following three Tasks: *Improving Cardiac Health and Reducing Healthcare Disparities; and Reducing Healthcare-Acquired Conditions in Nursing Homes*.
- Findings for Two Tasks—*Reducing the Prevalence of Adverse Drug Events and Reducing Disparities in Diabetes Care* —showed mixed results.
- Three Tasks were new initiatives for the QIN-QIO Program, which only demonstrated very preliminary signals of success, required formative evaluation and measure assessment. These tasks included: Combatting Antibiotic Resistant Bacteria through Antibiotic Stewardship in Communities (Antibiotic Stewardship), Improving Identification of Depression and Alcohol Use Disorder in Primary Care and Care Transitions for Behavioral Health Conditions (Behavioral Health), and American Indian/Alaska Native Healthcare Quality Initiative (AIHQI).

Projects demonstrating full success:

Coordination of Care (CoC)

This Task focused on reducing harm to beneficiaries that is caused by receiving care from multiple providers or practices. Communities participating in the QIN-QIO CoC initiative benefitted from decreased needs for inpatient care without observing changes in emergency department (ED) visits. In non-QIN-QIO communities, ED visits increased during this time while inpatient care decreased. An independent evaluator estimated that the QIN-QIO CoC initiative demonstrated a substantial positive ROI, returning $4.61 for every dollar invested.

Improving Medicare Beneficiary Adult Immunization Rates

The QIOs worked to achieve targets for eight measures to improve immunization rates. Four of these measures were National Quality Forum (NQF) endorsed measures for immunization. The measures covered recruitment and uptake of influenza and pneumococcal vaccines. The QIOs successfully met all targets set in this task.

Projects demonstrating partial evidence of success:

Improving Cardiac Health and Reducing Healthcare Disparities (Improving Cardiac Health)

Recruitment targets for this Task included practitioners serving Medicare beneficiaries belonging to underserved subgroups, who typically do not receive preventive counseling, to prevent heart attacks

and stroke. QIN-QIOs encouraged these practitioners to engage on quality measures for hypertension screening and control, and for their patients' annual screenings for tobacco use and counseling, as needed. Impact of this Task measured quality by assessing change in performance rates across a sample of Medicare fee-for-service (FFS) beneficiaries served by practitioners participating in the Cardiovascular Health initiative compared to a cohort of beneficiaries whose providers did not participate in this QIO-QIO initiative.

The Cardiovascular Health Task had positive effects on controlling blood pressure for most beneficiaries with hypertension. Upward trends and high performance rates were observed for practitioners reporting tobacco use screening and smoking cessation interventions, regardless of participation in the Cardiovascular Health Task. Models developed for the Million Hearts® Simulation Modeling Project estimated $22.8 million in healthcare savings over 5 years for beneficiaries exposed to the Cardiovascular Health initiative.

Reducing Healthcare-Acquired Conditions in Nursing Homes (Nursing Home Improvement)

The rate of hospital admissions for an adverse drug events was lower for beneficiaries residing in nursing homes that were highly engaged with the local QIO compared to those in nursing homes with no QIN-QIO engagement. Positive trends were seen for observation stays for hypertension and pressure ulcers.

Tasks Requiring Formative Evaluation and Measure Assessment

The following QIN-QIO Tasks in the 11th SOW were new and did not have enough data to support a full impact assessment.

- *Combatting Antibiotic Resistant Bacteria through Antibiotic Stewardship in Communities.* QIN-QIOs showed signals of exceeding the 80% target of recruited outpatient settings which have implemented an Antibiotic Stewardship program that meets and maintains minimum requirements.

- The *American Indian/Alaska Native Healthcare Quality Initiative Improving Identification of Depression* and the *Alcohol Use Disorder in Primary Care and Care Transitions for Behavioral Health Conditions* programs were inconclusive and required further analysis is needed to determine effects.

Reducing the Prevalence of Adverse Drug Events (ADE Prevention)

The adverse drug event task integrated within the Coordination of Care task reached approximately 8 million high risk Medicare Beneficiaries. This task showed mixed results. While there were successes such as achieving the overall claims-based ADE reduction and specific diabetes targets, the QIOs were not able to achieve all of the targets set in the contract for this task (referenced in table 8). The three targets that the QIOs did not meet were; the admissions and readmissions targets for Medicare beneficiaries on opioids and at high risk for an adverse drug event, the readmissions target for Medicare beneficiaries on opioids and at high risk for an adverse drug event and the admissions target for Medicare beneficiaries on anticoagulants and at high risk for an adverse drug event.

Reducing Disparities in Diabetes Care: Everyone with Diabetes Counts (EDC)

QIN-QIOs organized workshops for diabetes self-management education (DSME) sessions in community settings with the aim of increasing the number of community health leaders certified to provide such training to support prevention or delay the onset of type 2 diabetes. The QIOs had an impact only for beneficiaries who were at high risk for long-term complications for diabetes at the beginning of the DSME sessions. This limited outcome suggests that QIO efforts should be targeted to CMS beneficiaries most in need of access to services like DSME. In the 12th SOW we have focused efforts on better management of chronic diseases, specifically slowing the progression of chronic kidney disease and progression to ESRD, and including controlling HbA1c.

Lessons Learned from the 11th Statement of Work as applied to Future Contracts:

Based on the analysis referenced throughout this report, there are future considerations that may be implemented with Quality Improvement efforts that are designed to use lessons learned and generate higher success, better outcomes and attributable evidence in programmatic impacts. These include changes to:

1. **Refine measures, metrics, and cost-estimation models.**
2. **Target populations that will generate greater impact.**

Preview of Next Report

Our next report (FY 2020) will address the 12th SOW contracts and task orders for 2019-2024. CMS Quality Improvement Organization (QIO) 12th Statement of Work (SOW) is aligned with new CMS and administration priorities, with a focus on data-driven decision making to guide these efforts.

In line with these priorities, specific projects currently in the 12th SOW that have been scaled up or are being continued include: Nursing Home infection prevention, Kidney Health, ADE prevention, hospital safety, and community coalition initiatives.