DEPARTMENT OF HEALTH & HUMAN SERVICES OFFICE OF THE SECRETARY

Assistant Secretary for Legislation
Washington, DC 20201

July 17, 2023

The Honorable Kamala D. Harris
Vice President of the United States
President, United States Senate
Washington, DC 20510

Dear Madam Vice President:

I am respectfully submitting the enclosed Report to Congress entitled "The Administration, Cost, and Impact of the Quality Improvement Organization Program for Medicare Beneficiaries for Fiscal Year 2020."

The statutory purpose of the Quality Improvement Organization (QIO) Program is to improve the effectiveness, efficiency, economy, and quality of services delivered to Medicare beneficiaries and to ensure that services are reasonable and necessary. Section 1161 of the Social Security Act requires the Secretary to submit, by April 1, an annual report to Congress on the administration, cost, and impact of the QIO Program during the preceding fiscal year. This report describes the primary activities undertaken during fiscal year 2020.

I hope you find this report useful. I am sending an identical copy of this report to the Speaker of the House of Representatives. Please do not hesitate to contact me if you have questions or concerns.

Sincerely,

Melanie Anne Egorin, PhD
Assistant Secretary for Legislation

Enclosure

DEPARTMENT OF HEALTH & HUMAN SERVICES OFFICE OF THE SECRETARY
Assistant Secretary for Legislation
Washington, DC 20201

July 17, 2023

The Honorable Kevin McCarthy
Speaker of the House of Representatives
Washington, DC 20510

Dear Speaker McCarthy:

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U.S. Department of Health and Human Services
Centers for Medicare & Medicaid Services

REPORT TO CONGRESS

Fiscal Year 2020
The Administration, Cost, and Impact of the Quality Improvement Organization Program for Medicare Beneficiaries

July 2023

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 Fiscal Year (FY) 2020. 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, which work directly with healthcare providers and practitioners in their geographic service areas. Individual service areas may include one or multiple U.S. states, territories, and/or the District of Columbia. Collectively, these contracts cover the entirety of the United States including its territories.

In FY 2020, the Centers for Medicare & Medicaid Services (CMS) launched the QIO Program's 12th Scope of Work (SOW) for a five-year contract cycle that will end in 2024. The 12th SOW was designed to put patients first by improving quality, safety and cost-effectiveness for Medicare beneficiaries and their families. The contractor organizations awarded to perform this work are expected to use their expertise to drive local change through partnerships, data-driven interventions and technical assistance ultimately resulting in national quality improvement. During FY 2020, the QIO Program expenditures under Titles XVIII and XIX totaled approximately $641.8 million. This report will summarize the main activities included in the initial year of the 12th SOW from October 1, 2019, to September 30, 2020. It is important to note the following:

- The previous submission of this report, the FY 2019 Report to Congress, marked the final year of the 11th SOW and identified the accomplishments and limitations of the 11th SOW.
- During the time period of this report, the COVID-19 public health emergency (PHE) began, which resulted in program and funding adjustments made in response to the pandemic. Program adjustments prioritized infection control activities including, but not limited to, hand hygiene education, personal protective equipment (PPE) inventory, and nursing home visitation policies.
- The FY 2021 Report to Congress that will succeed this report will identify performance outcomes, accomplishments and limitations associated with the initiation of the intended 12th SOW metrics including infection control and vaccination results associated with the PHE response.

Two types of QIO contractors work with providers and beneficiaries: Beneficiary and Family Centered Care-Quality Improvement Organizations (BFCC-QIO) and Quality Innovation Network-Quality Improvement Organizations (QIN-QIO). In FY 2020, BFCC contractors, Kepro and Livanta, performed the program's statutory case review work, focusing on beneficiary complaints and concerns related to early discharge from healthcare settings, and patient and family engagement. Table 1 shows the geographic areas covered by the BFCC-QIOs. QIN-QIOs worked to reduce patient harm such as infections among nursing home residents and provided

staff training for hospital quality improvement. Table 2 shows the geographic areas covered by the QIN-QIOs.

Table 1. BFCC-QIOs Case Review Responsibilities by CMS Region and Service Area

Region	QIO	Service Area
Region 1: Boston	Kepro	CT, ME, MA, NH, RI, VT
Region 2: New York	Livanta	NJ, NY, PR, USVI
Region 3: Philidelphia	Livanta	DE, DC, MD, PA, VA, WV
Region 4: Atlanta	Kepro	AL, FL, GA, KY, MS, NC, SC, TN
Region5: Chicago	Livanta	IL, IN, MI, MN, OK, TX
Region 6: Dallas	Kepro	AR, LA, NM, OK, TX
Region 7: Kansas City	Livanta	IA, KS, MO, NE
Region 8: Denver	Kepro	CO, MT, ND, SD, UT, WY
Region 9: San Francisco	Livanta	AZ, CA, HI, NV, Pacific Territories
Region 10: Seattle	Kepro	AK, ID, OR, WA

Table 2: QIN-QIO by Name and Service Area

QIN-QIO Name	Service Area(s)
Alliant-Georgia Medical Care Foundation	AL, FL. GA, KY, LA, NC, TN
Comagine	ID, NM, NV, OR, UT, WA
Great Plains	ND, SD
Health Quality Innovators	KS, MO, SC, VA
Health Services Advisory Group	AZ, CA
IPRO	CT, DC, DE, MA, MD, ME, NH, NJ, NY, OH, RI, VT
QSource	IN
Mountain Pacific Quality Health Foundation	AK, HI, (GU, MP), MT, WY
Quality Insights Quality Innovation Network	PA, WV
Superior Health Quality Alliance	MI, MN, WI
Telligen	CO, IA, IL, OK
TMF	AR, MS, NE, PR, TX, VI

BACKGROUND

The statutory provisions governing the QIO Program are in Part B of Title XI of the Act. The QIO Program's 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 BFCC-QIOs and QIN-QIOs, modifying the eligibility requirements for all QIOs, the term of all QIO contracts, the geographic area served by all QIOs, and updates to the functions performed by all QIOs under their contracts. The contracts for the 12th 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 the provisions in sections 1154 and 1867 of the Act, 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 healthcare professionals. BFCC-QIOs are trained to review medical care and help beneficiaries with complaints about the quality of care. QIN-QIOs direct and 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. The 12th SOW also includes a performance-based payment model where a portion of the QIO reimbursement is directly tied to the achievement of quantitative outcomes. This model shifts from paying for services rendered to paying QIN-QIOs for accomplishing meaningful and measurable targets as stipulated in the contract. This adjustment is a benefit to the government.

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 2020, QIO Program expenditures under Titles XVIII and XIX totaled $641.8M. In FY 2020, CMS's enacted appropriation language included for the first time a limitation on CMS spending the Program Management appropriation to support Quality Improvement Organizations. CMS complied with that requirement.

III. PROGRAM IMPACT

The QIO Program impacts Medicare beneficiaries on an individual basis and the beneficiary population as a whole. In 2020, Medicare covered over 62 million beneficiaries: over 54 million people age 65 or older, and 8 million people of all ages with disabilities or end-stage renal disease. The QIO Program completed the 1st year of the 12th SOW contracting period in 2020. Using national claims datasets, and other data sources, empirically observed changes in important beneficiary outcomes are observed in the Medicare population. Some of these observations are listed below for the period of performance of the 12th SOW contract.

- BFCC-QIOs resolved **203,978** beneficiary-requested appeals of discharge/service terminations despite competing priorities involving the public health emergency.

- QIN-QIOs successfully enrolled **9,803** nursing homes to engage in quality improvement activities with quality assessed based on metrics contributing to the CMS Nursing Home Compare Star Rating in areas ranging from patient safety to care coordination.
- QIN-QIOs successfully enrolled **516** communities representing about **67%** of all Medicare beneficiaries. The QIN-QIOs enrolled community partners to work towards improved care quality in 5 focus areas: behavioral health, patient safety, chronic disease self-management, care coordination, and nursing home care quality.
- QIN-QIOs provided pandemic-related support to a total of 8,330 nursing homes.
    - QIN-QIOs provided a total of **2,783** nursing homes with **14,800** hours of support through Targeted Response Quality Improvement Initiatives (TR-QIIs) for COVID-19 control and prevention. An independent evaluator estimated that this effort prevented an estimated 6,500 COVID-19 infections among nursing home residents in FY 2020.
    - QIN-QIOs provided **6,879** nursing homes with **8,200** hours of additional pandemic-related education and technical assistance. This included 1,332 nursing homes that also received targeted response.

The sections below provide additional information about the 12th SOW, QIO accomplishments, and the impact on beneficiaries during the 1st year of the period of performance of the 12th SOW, from October 1, 2019 to September 30, 2020.

12th SCOPE OF WORK (SOW)

The CMS Quality Improvement Organization (QIO) 12th SOW's mission is to improve the performance of the healthcare system by increasing the quality of healthcare delivered and reducing burden. The 12th SOW was awarded for a five-year period that began in FY 2020 and will conclude in FY 2024. The activities of the 12th SOW were established to align with Health and Human Services (HHS) and CMS goals and priorities of FY 2020, which included:

- Aligning the QIO 12th SOW with new CMS and Administration policies
- Improving the CMS customer experience
- Ushering in an era of state flexibility and local leadership
- Supporting innovative approaches to improve quality, accessibility, and affordability
- Empowering persons and clinicians to make decisions about their health care.

Beneficiary and Family Centered Care-Quality Improvement Organization (BFCC-QIO) Program

The purpose of the BFCC-QIO contract is to improve healthcare services for Medicare beneficiaries through BFCC-QIO performance of numerous statutory review functions, including, but not limited to, quality of care reviews, beneficiary complaint reviews, appeals of discharges and terminations of service in various provider settings, medical necessity reviews, and Emergency Medical Treatment & Labor Act (EMTALA) reviews. The BFCC-QIO Program focuses on providing interventions to address the statutory functions and promote responsiveness

to beneficiary and family needs by 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 healthcare. Beneficiary-generated concerns provide opportunity to explore root causes of adverse health care outcomes, to develop alternative approaches to improving care, and to improve beneficiary/family experiences within the healthcare system. Beneficiary and family engagement and activation efforts are needed to produce the best possible outcomes of care. These BFCC-QIO efforts align with the National Quality Strategy (NQS), which encourages patient and family engagement. In addition, through the BFCC-QIO Program's case and claims reviews, quality of care concerns can be investigated and referred to appropriate organizations for additional investigation which could lead to sanctions and recoupment of overpayments which, along with other CMS efforts, helps protect the Medicare Trust Fund from fraud, waste, and abuse.

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 others.

CMS has contracted with Kepro and Livanta, LLC as the two BFCC-QIOs to cover 50 states, the District of Columbia, and two territories, as shown in Table 1 above.

Beneficiary experiences give the BFCC-QIO Program the perspective to identify opportunities for improvement, develop solutions that address the real needs of patients, and inspire action by health professionals. For example, during the 11th SOW, the BFCC-QIOs began to use an informal alternative dispute resolution process (immediate advocacy) to quickly resolve a Medicare beneficiary complaint regarding the quality of Medicare-covered healthcare received or services that accompany medical care (e.g., medical equipment, etc.). This process involves the beneficiary and the BFCC-QIO directly contacting the beneficiary's practitioner and/or provider, usually by telephone, to achieve favorable solutions to concerns. The immediate advocacy process is completely voluntary for both the beneficiary and the provider or practitioner. Complaints that may be resolved through immediate advocacy include, but are not limited to: complaints about a lack of communication by hospital staff; concerns about the failure to receive a motorized scooter, wheelchair, or other piece of equipment; or difficulty scheduling an appointment for a prescription refill.

CMS has enhanced the BFCC-QIO Program structure by increasing the number of regional service areas from five to ten, to facilitate more local level innovation and approaches to improve quality, accessibility, and affordability.

The BFCC-QIO case review national volumes for the first-year reporting period of the 12th Statement of Work include the following:

Table 3: BFCC ACTIVITY

BFCC ACTIVITY	FY 2020 VOLUME
Quality of Care Complaints	3,367
Immediate Advocacy	4,246
Beneficiary-requested appeals of discharge/service terminations	203,978
EMTALA	614

As a result of the COVID-19 pandemic, the numbers above are less than what would typically be seen during a fiscal year. For example, many hospitals and outpatient surgery centers greatly reduced, or completely stopped, elective or routine procedures in order to increase bed capacity for patients presumed to be infected by COVID-19. Consequently, this resulted in nearly a 50% decrease of in-person primary care visits during the early months of the pandemic.

Quality Innovation Network-Quality Improvement Organization (QIN-QIO)

The purpose of the QIN-QIO contracts in the first year of the 12th SOW was to procure expert healthcare quality improvement services from qualified contractors to improve care for Medicare beneficiaries in nursing homes and communities. QIN-QIOs work with providers and communities on data-driven quality initiatives to improve patient safety, reduce harm, and improve clinical care at local and regional levels. The primary goals of the QIN-QIOs are to promote effective prevention and treatment of chronic disease, make care safer by reducing harm caused by the delivery of care, promote effective communication and coordination of care, and make care more affordable.
For the 12th SOW, QIN-QIOs aligned with agency and administrative priorities by utilizing innovation, broad quality improvement initiatives (QIIs), and data-driven methodologies to work towards five broad goals:

1. Improve Behavioral Health Outcomes, Focusing on Decreased Opioid Misuse
2. Increase Patient Safety
3. Increase Chronic Disease Self-Management (Cardiac and Vascular Health, Diabetes, Slowing Chronic Kidney Disease and Preventing End Stage Renal Disease (ESRD)
4. Increase Care Coordination
5. Improve Nursing Home Quality.

Each goal has an established set of quality measures for nursing homes, communities, or both that hold the 12 QIN-QIOs accountable for measurable outcomes with regard to the performance of the nursing homes and communities that receive quality improvement assistance from the QIN-QIOs. Although the pivot to address the COVID-19 pandemic refocused the FY 2020 activities of the 12th SOW, QIN-QIOs were still preparing for some of the task work that would be occurring in FY 2021. Special attention was given to those activities that may be impacted by the COVID-19 pandemic and health disparities reduction. Some of those activities include:

- Adverse Drug Events Data Collection and Support
- Quality Reporting Programs and Supporting Clinicians in the Quality Payment Program
- Improving Medicare Beneficiary Immunization Rates with a Special Focus on Reducing Disparities
- Improving Identification of Depression and Alcohol Use Disorder in Primary Care and Care Transitions for Behavioral Health Conditions

The 12th SOW was awarded to 12 QIN-QIO contractors on November 7, 2019. Each QIN-QIO contractor covers a region that includes as many as twelve states, the District of Columbia, and U.S. territories, across the United States, as shown in Table 2 above. The QIN-QIOs are responsible for working with healthcare providers and the community on data-driven projects to improve patient safety, reduce harm, and improve health outcomes at the local level. During the initial year of the 12th SOW, QIN-QIOs began enrollment to reach the Long-Term Care and Community Coalitions targets. Activities to support broad-based and targeted QIIs was added in response to the public health emergency to target activities where needed.

Table 4: QIN-QIO Activity and Task Area

Care Setting	**Task Area**
Long-Term Care	Contract-specified provider-based quality improvement services intended to better resident outcomes in 9,803 nursing homes
Community Coalitions	Contract-specified community-based quality improvement services intended to better outcomes in the Medicare beneficiary population in 414 communities
Targeted Response Quality Improvement Initiatives*	Ad-hoc QIIs to address immediate identified needs, emerging trends, etc. **This was particularly useful to quickly address infection control at the unexpected onset of the COVID-19 pandemic.*

Long-Term Care in Nursing Homes

The purpose of this activity is to provide targeted assistance to nursing homes serving small, rural, and the most vulnerable populations to improve nursing home quality. Prior to the pandemic, the QIN-QIOs had just begun recruiting nursing homes to participate in their technical assistance programs based on CMS' pre-pandemic 12th SOW goals. The QIN-QIOs targeted nursing homes most in need of quality improvement, specifically facilities with a CMS Star rating of 4 stars or less based on the latest available Nursing Home Compare data. Each QIN-QIO was required to reach its proposed target number of nursing homes, contributing to achieving CMS' national recruitment goal, collectively. In February 2020, the CDC informed the nation of a major COVID-19 outbreak at a nursing home in Kirkland, Washington, thus demonstrating the vulnerability of nursing home residents and staff. As a result of the COVID-19 pandemic, the QIO Program adjusted its efforts to help reduce the spread of COVID-19 infection in nursing homes. Older adults were and continue to be disproportionately affected by COVID-19, and were also more likely to be at risk for severe COVID-19 infection, hospitalization, and death from the disease. As a result, infection control within nursing homes

became the priority of the QIO Program and quality improvement efforts in other areas were deferred through the end of FY 2020.

PANDEMIC RESPONSE CHRONOLOGY

Table 5: Pandemic Response Chronology

DATE	PANDEMIC- RELATED ACTIVITY
3/13/2020	The President declared the COVID-19 pandemic to be a national emergency (in effect as of 3/1/2020). CMS issued blanket waivers (retroactive to 3/1/2020) that included expanded telehealth services. QIN-QIOs increased provision of technical assistance on the use of telehealth services with nursing home residents.
4/21/2020	QIN-QIOs provided weekly and later biweekly updates to CMS on states' actions and resources available for nursing home providers to respond to the pandemic.
4/23/2020	CMS modified the QIN-QIO contract(s) to focus specifically on infection control, also adjusted enrollment criteria to include the nursing homes with the greatest infection control needs, and changed the enrolled deadline for Communities and Nursing Homes from May 2020 to November 2020. CMS began referring Nursing Homes for targeted response based on infection control deficiencies found during inspections.
5/8/2020	CMS published an interim final rule requiring nursing homes to report COVID-19 facility data to the Centers for Disease Control and Prevention's (CDC's) National Healthcare Safety Network (NHSN) and to residents and their representatives/families. The QIN-QIOs began providing technical assistance to nursing homes for enrollment and reporting into NHSN. https://www.cms.gov/medicareprovider-enrollment-and-certificationsurveycertificationgeninfopolicy-and-memos-states-and/interim-final-rule-updating-requirements-notification-confirmed-and-suspected-covid-19-cases-among
5/28/2020	QIN-QIOs began providing a series of weekly trainings on infection control to all (enrolled) nursing homes.
5/31/2020	Weekly NHSN data became available for each nursing facility.
6/07/2020	QIN-QIOs began sending weekly Nursing Home Technical Assistance Reports to nursing homes to inform them of their COVID numbers and performance.
7/1/2020	CMS directed the QIOs to implement targeted response based on high community COVID-19 infection rates ("county hot spots"). This response included both onsite and virtual one-on-one technical assistance.
7/28/2020	CMS instructed the QIN-QIOs to develop content for the COVID-19 Training for Nursing Homes that was posted on the Quality, Safety and Education Portal (QSEP) in August. The QIN-QIOs provided scenario-based content, pre- and post-test results, questions to be delivered to the learner, animation, graphics, real-life examples, and video clips for 30-minute modules for their assigned topics.

8/10/2020	CMS began hosting a Weekly QIN-QIO TR-QII Actionable Insights Peer Sharing Call Series**.** During these calls, the QIN-QIOs shared effective interventions and knowledge gained from working on the TR-QIIs.

PANDEMIC RESPONSE ACTIVITIES

Targeted Response Quality Improvement Initiatives (TR-QIIs)

With the severity of COVID-19 spreading throughout nursing homes, CMS reprioritized the work of the QIN-QIOs to provide intensive one-on-one support on CDC guidelines and infection control practices to nursing homes. CMS leveraged a pre-existing section of the QIN-QIO contract designated for Quality Improvement Initiatives (QIIs) to provide targeted response (TR) to those facilities in greatest need, and expanded contract focus and requirements. 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.

TR-QIIs were developed specifically to support the pandemic response. CMS used data about infection control practice deficiencies documented during CMS survey activities, county COVID-19 rates, and nursing home COVID-19 case counts to identify and refer those in greatest need of direct assistance for TR-QIIs each week. In each referred facility, QIN-QIOs provided onsite or virtual intensive support within 5 days, and provided continuing support until the QIN-QIO documented clear evidence that the problem had been addressed, a process that usually took between 6 and 9 months. The QIN-QIO assisted providers and/or practitioners in identifying the root cause(s) of concern, developing a customized plan to address concerns, coaching the facility's administration or staff in implementing at least one process or system-based improvement consistent with the plan, and providing support to monitor changes in processes and outcomes. CMS referred 2,923 nursing homes to work with the 12 QIN-QIOs in FY 2020. Of these, the 12 QIOs reported engaging in targeted response with 2,783 facilities. In total, QIN-QIOs spent approximately **14,800** hours on the TR-QIIs implemented in FY 2020.

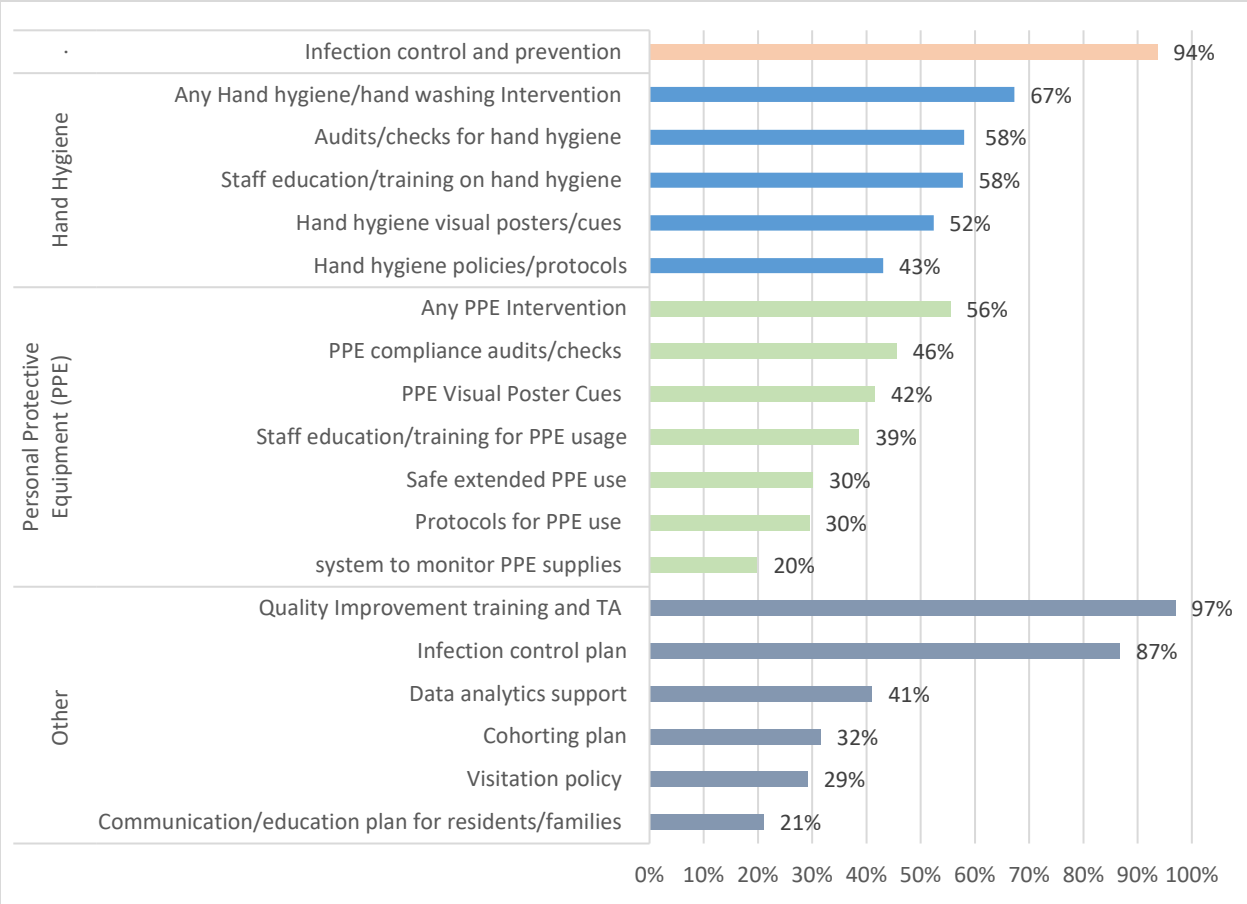
CMS' Independent Evaluation Contractor conducted a retrospective survey of QIN-QIOs to gather data on the types of interventions conducted as part of the TR-QII work completed in July – December, 2020. The results of the survey are displayed in Table 6 and Figure 1. Although the survey obtained data on 512 nursing homes, it was designed to be representative of all facilities receiving assistance under one or more TR-QII(s) from April through October 2020. We applied these percentages to the 2,783 facilities receiving support from April to September 2020 to provide the estimates that follow.

Table 6: Content of Targeted Response Delivered to Nursing Homes in FY 2020

Content of Targeted Response	Estimated Number of Nursing Homes
Infection control and prevention	2,600
Hand washing or hand hygiene	1,900

Personal protective equipment	1,500
Any other content	2,700

Figure 1: 2: Content of QIIs targeted to prevent COVID-19 infection April through October 2020



Infection Control and Prevention—Targeted Response

Approximately 2,600 nursing homes received training on infection control and prevention in FY 2020. QIN-QIOs helped individual facilities assess and fortify the basic infrastructure and requirements to support infection control in long-term care settings such as having an infection control coordinator, infection control plans, infection control data, personal and environmental sanitation, and personal protective equipment.

Hand Hygiene - Targeted Response

QIOs worked with nearly 1,900 nursing homes to ensure proper resident and staff hygiene, in FY2020. QIN-QIOs conducted or helped facilities to conduct audits to assess compliance with hand hygiene protocols, provided staff education and training on proper hand hygiene, facilitated the use of visual cues and posters, and helped to develop or improve written hand hygiene policies and procedures.

Personal Protective Equipment (PPE) - Targeted Response

QIOs worked with more than 1,500 nursing homes in FY 2020 to ensure that staff and residents were in receipt of sufficient PPE and that they understood and were adhering to the donning and doffing sequences and practices to limit the spread of possible contamination.

Other - Targeted Response

QIN-QIOs worked with nearly 2,700 nursing homes on a host of other interventions in FY 2020. Some examples of these other reported support work include addressing: implementation of systematic quality improvement activities; infection control planning; collecting, reporting, and analyzing infection and infection control data; and developing or implementing policies around cohorts (separating residents with COVID-19 from others) and visitation.

Quality Improvement Technical Assistance

The QIN-QIOs helped disseminate CDC's evidence-based guidance along with tips and tools for its implementation to a much broader set of nursing homes through a weekly training series. The QIN-QIOs conducted assessments to identify pandemic-related needs with the 9,803 Nursing Homes enrolled in more routine QIO Program activities and with any other nursing homes that solicited assistance. QIOs focused on a number of key evidence-based practices to support nursing homes which included process improvements, and interventions to align with processes and practices to effectively reduce COVID-19 transmission, treat positive cases and ensure that the residents, staff and healthcare workforce were adequately protected. The QIN-QIOs delivered this assistance by listserv, email, and webinar to 6,879 facilities (including 1,332 facilities also receiving TR-QII assistance). In total, QINs provided approximately 8,200 hours of quality improvement technical assistance. Details are as reported by QIN-QIOs below:

Table 7: Content of Quality Improvement Technical Assistance Delivered to Nursing Homes in FY 2020

Content of Targeted Response	Estimated Number of Nursing Homes
Infection Control	3,259
Reporting to CDC National Healthcare Safety Network	1,672
Care Coordination	657
Emergency Preparedness	341
Any Other Content	949

COVID 19 Infection Control – Education and Technical Assistance

At the request of nursing homes or by a QIO needs assessment QIOs work with nursing homes to reduce COVID-19 transmission, treat positive cases and ensure that the residents, staff and healthcare workforce were adequately protected. During FY 2020 QIOs provided education and/or technical assistance to 3,259 nursing homes on COVID-19 Infection Control-related activities.

CDC National Healthcare Safety Network (NHSN) – Education and Technical Assistance

QIOs began providing technical assistance to nursing homes to meet the CMS requirement of enrollment and reporting into NHSN. During FY 2020 QIOs provided NHSN-related support to 1,672 nursing homes.

Care Coordination – Education and Technical Assistance
QIOs provided support for telehealth visits, transitioning residents between care settings, nursing home and re-entry for residents who received care outside of the nursing home. During FY 2020 QIOs provided care coordination-related support to 657 nursing homes.

Emergency Preparedness – Education and Technical Assistance
QIOs began providing technical assistance to nursing homes to assist with the development of emergency preparedness plans to address public health emergencies and other issues that could impact the continuity of operations at the facility. During FY 2020 QIOs provided emergency preparedness-related support to 341 nursing homes.

Other – Education and Technical Assistance
QIOs reported providing other technical assistance to 949 nursing homes. Some examples of content that QIOs reported in this category include: environmental services and sanitation, hand hygiene, and COVID-19 testing policies.

Activities to Evaluate QIO Work

Satisfaction:
QIN-QIOs administered satisfaction surveys at the time of individual encounters. Both the targeted response and the quality improvement technical assistance efforts were well received by nursing homes. The mean reported overall satisfaction score was 4 out of a possible 4 points using a Likert scale.

Impact:
CMS' Independent Evaluation Contractor (the IEC) conducted a multivariate statistical analysis[1] to determine the likelihood that the CMS QIN-QIO Program's targeted response interventions **decreased:** 1) nursing home resident COVID-19 infections, 2) hospitalizations, 3) mortality, and 4) employee COVID-19 infections. ***After the targeted response was provided,*** the IEC observed the following in the 983 facilities studied:

1.) Reductions in resident COVID-19 infections of 25.2% (95% confidence interval [CI]: 13.8%, 34.0%),

[1] The IEC's analysis included 983 CMS-certified nursing home facilities that received targeted response interventions between July 2020 and March 2021. These facilities were matched for comparison to 710 CMS-certified facilities that were similar prior to any intervention. Facilities were matched exactly by state and caliper matching was used for baseline COVID-19 incidence rates and parallel COVID-19 incidence trends using Euclidean distance methods for time series clustering. Additional covariates adjusted for included mean resident age, number of licensed beds, Five-Star Quality Rating, weekly county COVID-19 incidence. Model estimates were made using generalized estimating equations (GEE) with a first-order autoregressive (AR-1) correlation structure applied within a comparative interrupted time series framework.

2.) Reductions in Medicare Fee for Service beneficiary hospitalizations of 26.4% (95% CI: 12.5%, 36.5%),
3.) Reductions in resident deaths of 24.3% (95% CI: 5.9%, 36.6%),
4.) Reductions in employee infections of 19.1% (95% CI: 7.4%, 28.1%).

For FY 2020 cumulatively, IEC extrapolated the above results *to all 2,527 facilities receiving targeted response* between April and September 30, 2020 to project COVID-19 events prevented by the program.

Table 8: Projected Number of COVID-19 Events Prevented in Nursing Homes by the QIN-QIO Program's Targeted Response Intervention, FY2020

COVID-19 Outcome	**Projected Number of Events Prevented (95% Confidence Interval)**
Resident Infections	6,344 (3002, 9687)
Resident Inpatient Hospital Stays (Medicare Fee-For-Service Beneficiaries only)	2,956 (1,176, 4736)
Resident Deaths	1,406 (275, 2537)
Employee Infections	4,080 (1386, 6774)

Rapidly evolving pandemic conditions barred the design of a randomized trial. Therefore, the model may have been inaccurate to the extent that it failed to account for unmeasured factors. There are *two additional limitations* arising from the process of projecting from the model specifically to the QIO Program's Targeted Response more generally. One, the study period did not *precisely align* with FY2020. It's possible that Targeted Response effects were different in FY2021 than FY2020; our measurement combined facilities from both time periods. Two, the projections included 1,725 facilities for which the IEC was unable to find *appropriate facilities* for comparison. Therefore, the actual estimates may be larger or smaller than these projections. Nevertheless, this table represents CMS' best estimates of the impacts in FY2020.

Community Coalitions

The purpose of this activity is to address Medicare beneficiary access to care and quality of care in the communities where they live, shop, worship and socialize. The QIN-QIOs seek to improve, through a comprehensive community effort, the quality of care for Medicare beneficiaries who transition among care settings including their home. Initiatives include reducing hospital admission and readmission rates, and reducing adverse drug event rates by improving effective communication and the continuity and coordination of patient care using methods such as interoperable health IT. These efforts aim to yield sustainable and replicable strategies to achieve high-value healthcare, particularly for chronically ill and disabled Medicare beneficiaries.

During FY2020, QIN-QIOs were collectively required to reach a total of 414 Community Coalitions covering at least 62% of beneficiaries. Communities were defined as a set of beneficiaries residing in a specified group of contiguous ZIP Codes. Each QIN-QIO was required to propose and reach their target number of Community Coalitions. The target

population of beneficiaries was those who reside in rural areas or fall into the 15% most disadvantaged neighborhoods nationally, based on the Area Deprivation Index (ADI). By the end of the enrollment period, the QIN-QIOs had exceeded the required targets, ultimately recruiting 516 communities in which 67% of the Medicare population resides.

IV. CONCLUSION

Medicare beneficiaries, like all Americans, deserve to have confidence in their healthcare 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 healthcare 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 healthcare in the Medicare program. This report covers the time period of the inaugural year of the 12th SOW which would have primarily been focused on nursing home and community enrollment, partnership building and development of interventions. The COVID-19 pandemic occurred in the midst of this report period and CMS made a swift pivot to respond to the public health emergency and changed the focus and direction of some of the work of the QIO Program.

Preview of Next Report

Our next report (FY 2021) will address the specific performance measures of the 12th SOW. CMS has aligned the QIO 12th SOW with current agency and administration priorities to:

- Advance Equity
- Increase COVID vaccination
- Engage Partners and
- Drive Innovation

CMS intends to achieve this through voluntary programs that systematically leverage communities to spread proven practices and implement quality improvement interventions to improve healthcare quality. In 2022, QIOs will reach the 36th month of the contract, which will include additional reimbursement in the form of performance-based payments for specific quality improvement metrics.

Appendix A

Table 3. Numbers of Nursing Homes Receiving Infection Control Targeted Response and Other Technical Assistance

QIN-QIO	Number of NHs Receiving Targeted Response Support	Number of NHs Receiving Quality Improvement Technical Assistance	Number of NHs Receiving Both Types of Support
Alliant Health Solutions	237	463	76
Comagine Health	122	171	83
Great Plains	5	116	42
HQIN	185	318	62
HSAG	104	617	293
IPRO	130	1,652	207
Mountain-Pacific	11	79	19
Qsource	50	134	47
Quality Insights	45	482	126
Superior Health	131	383	120
TMF QIN	167	876	196
Telligen	264	256	61
Total	1,451	5,547	1,332

NH = nursing home

Appendix B

Table 4A. Nursing Home Enrollment by QIN-QIO

QIN-QIO	Total NHs[a]	Eligible NHs[b]	Eligible NHs Enrolled	Extra NHs Enrolled[d]	Disenrolled NHs[e]
Alliant Health Solutions	2,593	1,534	1,507	1	0
Comagine Health	648	336	334	1	0
Great Plains	184	156	152	0	1
Health Quality Innovators (HQI)	1,324	887	874	1	0
Health Services Advisory Group (HSAG)	1,334	568	563	669	4
IPRO	3,090	1,559	1,559	0	0
Mountain-Pacific Quality Health	170	128	126	0	18
Qsource	535	334	332	1	0
Quality Insights	812	476	453	0	1
Superior Health Quality Alliance	1,159	814	809	0	0
Telligen	1,673	1,134	1,133	1	0
TMF	1,844	1,287	1,287	0	6
Total	15,366	9,213	9,129	674	30

NH = nursing home

[a] Total number of nursing homes in QIN-QIO service area.
[b] Nursing homes identified by CMS as being eligible for work based on the Nursing Home Star Rating, geographic location in a rural area, or small bed size.
[c] Nursing homes that committed to working with the Quality Improvement Organization program to improve care in nursing homes.
[d] QIN-QIO contractors serve enrolled nursing homes as part of a fixed price contract. Some contractors work with more nursing homes than they are contractually obligated to work with for this same fixed price. CMS describes these as "additional" Nursing Homes.
[e] Nursing homes occasionally withdrew from the program after enrollment. Common reasons for disenrollment may include nursing home closures and resource limitations that negatively impact participation. The goal has been to keep these disenrollments as low possible.

Table 4B. Nursing Home Enrollment by State or Other Geographic Area

State or Other Area	QIN-QIO	Total NHs[a]	Eligible NHs[b]	Eligible NHs Enrolled[c]	Extra NHs Enrolled[d]	Disenrolled NHs[e]
AK	Mountain-Pacific Quality Health	20	15	15	0	3
AL	Alliant Health Solutions	227	132	131	0	0
AR	TMF	224	157	157	0	0
AZ	Health Services Advisory Group (HSAG)	146	58	57	75	0
CA	Health Services Advisory Group (HSAG)	1,188	510	506	594	4
CO	Telligen	225	110	110	0	0
CT	IPRO	212	87	87	0	0
DC	IPRO	19	7	7	0	0
DE	IPRO	46	19	19	0	0
FL	Alliant Health Solutions	702	245	239	1	0
GA	Alliant Health Solutions	357	260	260	0	0
GU	Mountain-Pacific Quality Health	1	1	1	0	0
HI	Mountain-Pacific Quality Health	43	23	21	0	3
IA	Telligen	432	353	353	0	0
ID	Comagine Health	82	46	46	0	0
IL	Telligen	717	447	446	1	0
IN	Qsource	535	334	332	1	0
KS	Health Quality Innovators (HQI)	327	255	251	0	0
KY	Alliant Health Solutions	285	212	202	0	0
LA	Alliant Health Solutions	278	197	196	0	0
MA	IPRO	373	173	173	0	0
MD	IPRO	226	104	104	0	0
ME	IPRO	93	66	66	0	0
MI	Superior Health Quality Alliance	438	272	272	0	0
MN	Superior Health Quality Alliance	367	256	256	0	0

State or Other Area	QIN-QIO	Total NHs[a]	Eligible NHs[b]	Eligible NHs Enrolled[c]	Extra NHs Enrolled[d]	Disenrolled NHs[e]
MO	Health Quality Innovators (HQI)	521	354	348	0	0
MS	TMF	204	169	169	0	0
MT	Mountain-Pacific Quality Health	70	57	57	0	10
NC	Alliant Health Solutions	428	277	271	0	0
ND	Great Plains	80	64	64	0	0
NE	TMF	196	163	163	0	0
NH	IPRO	74	60	60	0	0
NJ	IPRO	363	110	110	0	0
NM	Comagine Health	71	52	52	0	0
NV	Comagine Health	66	36	36	0	0
NY	IPRO	616	280	280	0	0
OH	IPRO	954	589	589	0	0
OK	Telligen	299	224	224	0	0
OR	Comagine Health	129	56	54	1	0
PA	Quality Insights	690	382	368	0	1
PR	TMF	6	6	6	0	0
RI	IPRO	79	30	30	0	0
SC	Health Quality Innovators (HQI)	190	110	109	1	0
SD	Great Plains	104	92	88	0	1
TN	Alliant Health Solutions	316	211	208	0	0
TX	TMF	1,214	792	792	0	6
UT	Comagine Health	97	56	56	0	0
VA	Health Quality Innovators (HQI)	286	168	166	0	0
VI	TMF	0	0	0	0	0
VT	IPRO	35	34	34	0	0
WA	Comagine Health	203	90	90	0	0
WI	Superior Health Quality Alliance	354	286	281	0	0
WV	Quality Insights	122	94	85	0	0
WY	Mountain-Pacific Quality Health	36	32	32	0	2

[a] Total number of nursing homes in QIN-QIO service area.
[b] Nursing homes identified by CMS as being eligible for work based on the Nursing Home Star Rating, geographic location in a rural area, or small bed size.

[c] Nursing homes that committed to working with the QIO Program to improve care in nursing homes.
[d] QIN-QIO contractors serve enrolled nursing homes as part of a fixed price contract. Some contractors work with more nursing homes than they are contractually obligated to work with for this same fixed price. CMS describes these as "additional" Nursing Homes.
[e] Nursing homes occasionally withdrawn from the program after enrollment. Common reasons for disenrollment may include nursing home closures and resource limitations that negatively impact participation. The goal is to keep these numbers as low possible.