



Creating an Optimal  
Environment for Quality  
Healthcare for Individuals,  
Families, and Communities

# Demonstrating Attributable Impact in Quality Improvement Through Success Stories

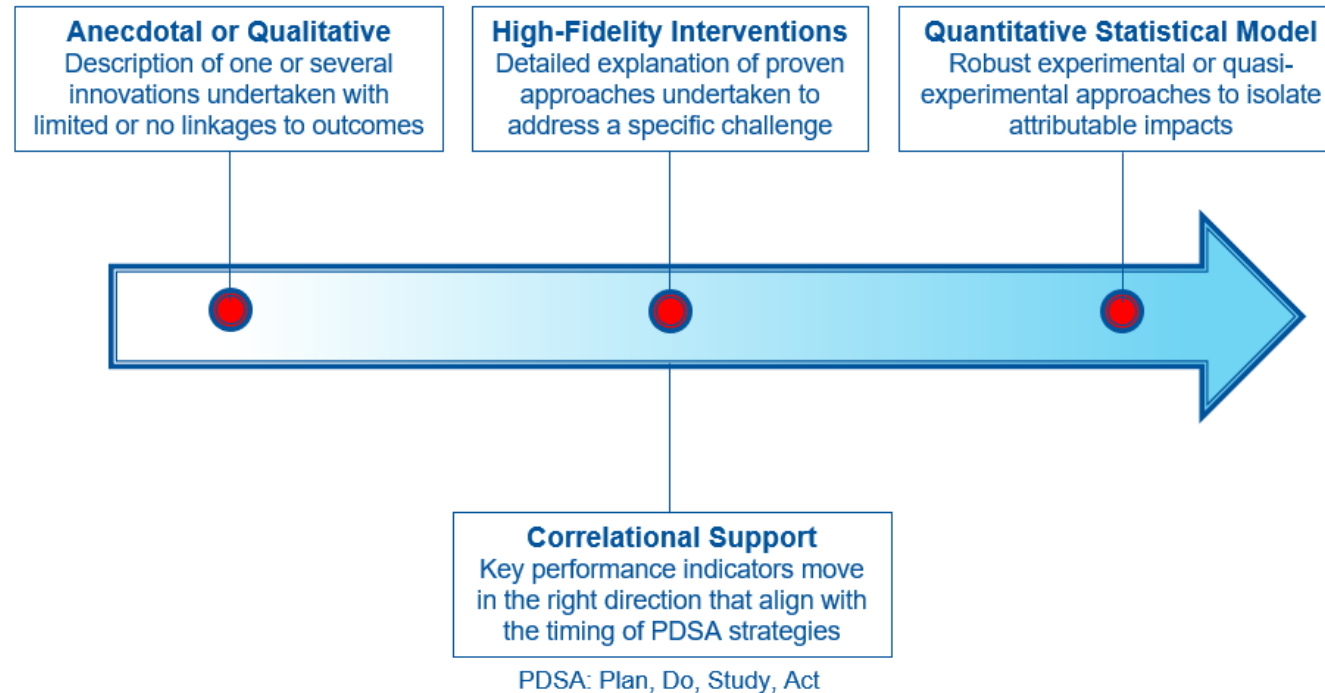
*Findings from the Independent Evaluation Contractor (IEC) for the National Quality Improvement and Innovation Contractors (NQIIC)*

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Organizations: 1. Booz Allen Hamilton, 2. Centers for Medicaid and Medicare Services



# Attributing Impact to our Work: A Continuum of Evidence



CMS 2024  
Quality  
Conference  
Resilient and Ready Together

Creating an Optimal  
Environment for Quality  
Healthcare for Individuals,  
Families, and Communities

Presenter



**McCall Glover**  
Data Scientist, MPH  
Booz Allen Hamilton

# AGENDA

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- Overview of Progress
- Findings to Date
- Lessons Learned and Actionable Next Steps
- Questions and Answers

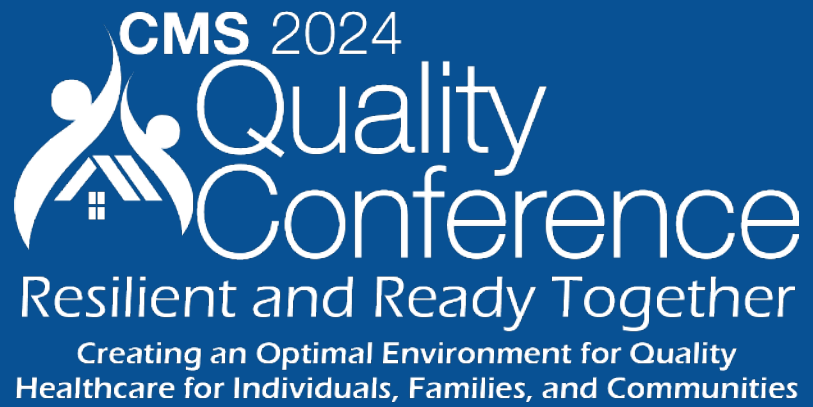


# Overview of Progress

# Progress in Demonstrating Attributable Impact through Success Stories



- During the 12th SOW, CMS co-designed a strategy with the IEC, to work with NQIIC contractors to better demonstrate attributable impact and success.
  - The IEC conducted a pilot study to identify case studies of success; produced 9 stories.
  - CMS & the IEC held closed-door feedback session with representatives from all 12 Quality Improvement Network – Quality Improvement Organization (QIN-QIO) contractors during the 2023 CMS Quality Conference.
    - ▲ Findings were analyzed and used to inform CMS resource development to guide contractors in demonstrating attributable impact.
  - CMS solicited additional success stories from QIN-QIOs; the IEC assessed QIO progress in capturing and demonstrating attributable impact.
- Progress has been made, however, additional refinement to guidance and resources provided to contractors will further improve their ability to demonstrate attributable impact and success.



# Findings to Date

# The Success Story Exercise

## Prominent Success Story Exercise Findings

High QIN-QIO Engagement

Insufficient Data Collection  
or Reporting

Definitional Gaps

Promising Opportunities

## Key Activities

- Specified by the IEC SOW, the IEC identified nine (9) success stories through collaboration between contractors and the IEC.

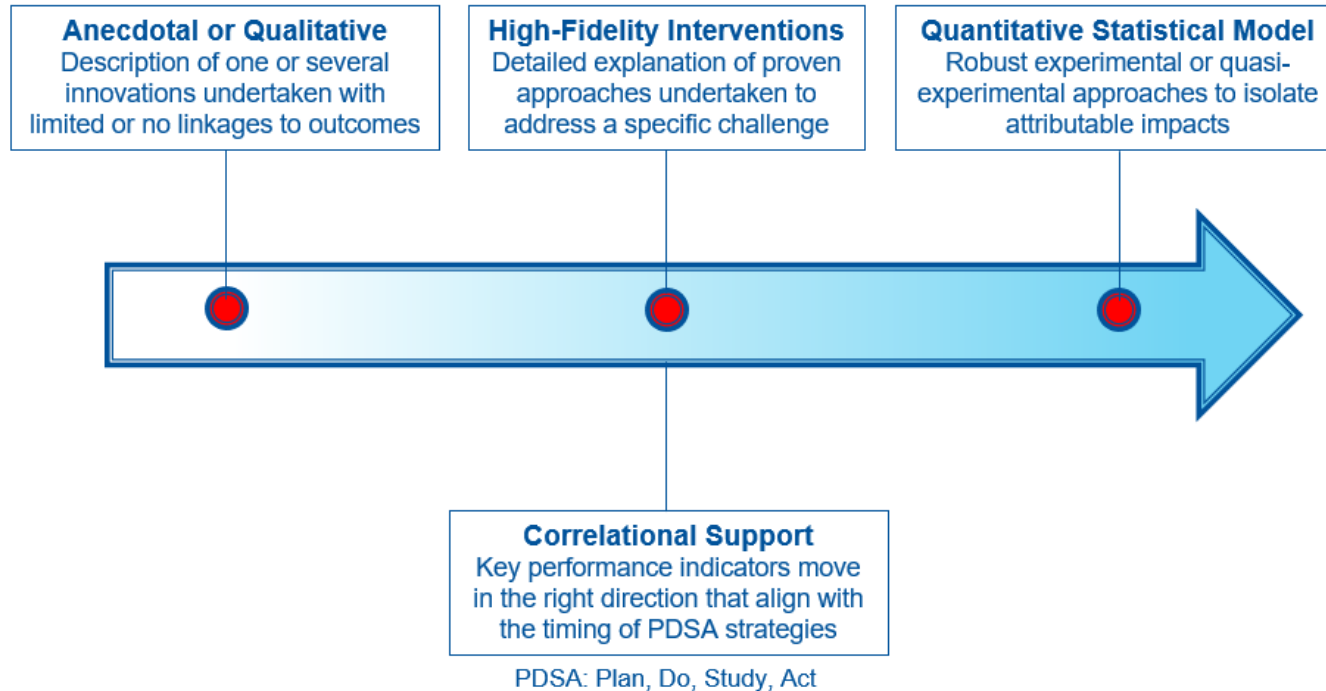
## Key Takeaways

- QIN-QIOs are highly engaged in the process and desire to demonstrate success.
- Demonstration of success was incomplete and inadequate for attribution.
- Identified gaps between CMS and QIN-QIO definitions of success; stronger evidence needed to qualify success.
  - From QIN-QIO SOW, pg. 37 "*QIN-QIOs must also demonstrate clear linkages and attribution to... improved health outcomes and performance...*"
- As part of regular QI work, and learnings, QIN-QIOs are amenable to improving their capture of success.



# CMS Quality Conference 2023

## The Continuum of Success for Feasibly Measuring Attributable Impact

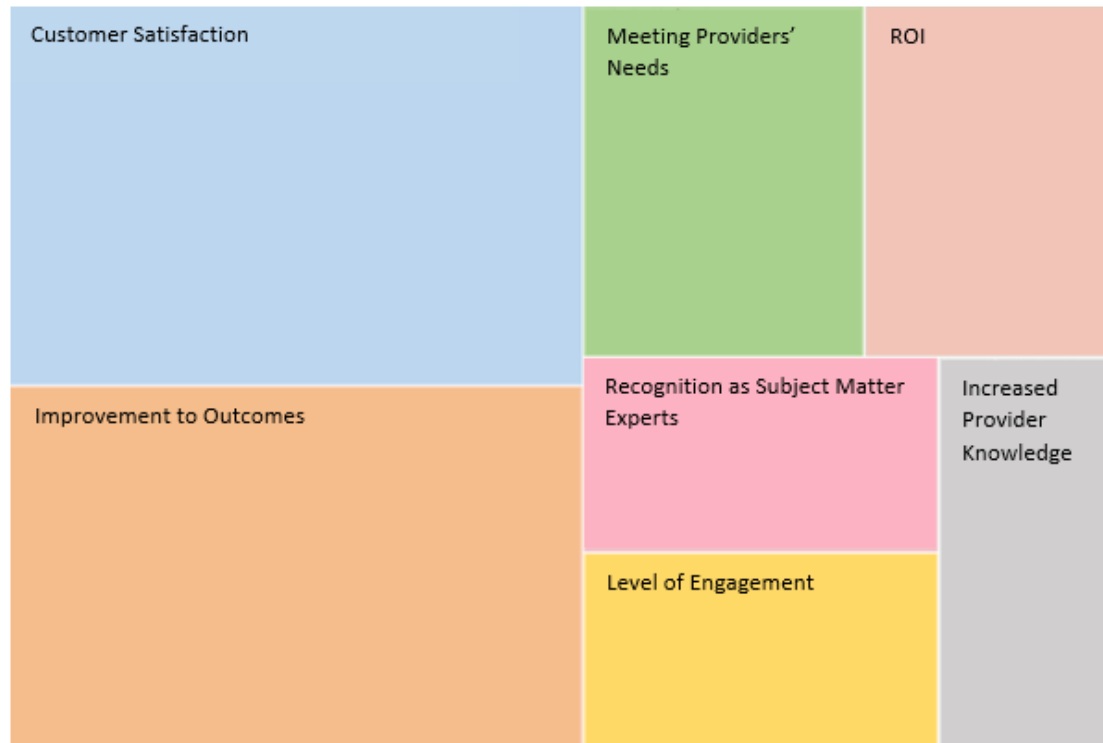


## Key Activities

- During the 2023 Quality Conference CMS introduced the Continuum of Success to contractors.
- CMS and IEC hosted a closed-door session with all 12 QIN-QIOs to understand perspectives and alignment of effort with CMS guidance.
- The IEC analyzed the discussion transcript to extract key findings.

# CMS Quality Conference Findings

## Hierarchy Chart of Most Common Success Definitions among QIN-QIOs



Source: Recording of CMS 2023 Quality Conference Closed-Door Session and Subsequent Follow-Up

## Key Takeaways

- QIN-QIOs value a range of success definitions, but there were differences in demonstrating success due to original 12<sup>th</sup> SOW framework for capturing attribution.
- It is critical to align expectations for demonstrating success.
- Contractors need clear guidance to properly communicate success and demonstrate attributable impact.
  - CMS began developing resources to guide QIN-QIOs in capturing and communicating their success.

# A New Success Story Exercise

## Understanding the Breadth and Depth of New Success Stories Using 7 Metrics (N=23)

Metrics	State the problem	Baseline data are clearly described	Describe the setting where support was performed	Describe the rationale	Describe the intervention or support activities	Process data are clearly identified	Outcome data are clearly described
Number (%) of Stories	22 (95.7%)	9 (39.1%)	17 (73.9%)	0 (0.0%)	23 (100.0%)	0 (0.0%)	22 (95.7%)

Source: CMS PowerPoint Deck of 46 new success stories, solicited September 2023; IEC used a random number generator to identify 23 (50%) stories to review.

## Key Activities

- CMS solicited new success stories from QIN-QIOs in September 2023, providing a template for guidance during development.
- The IEC developed seven (7) metrics for systematically analyzing these stories, based on established evaluation practices.

## Key Takeaways

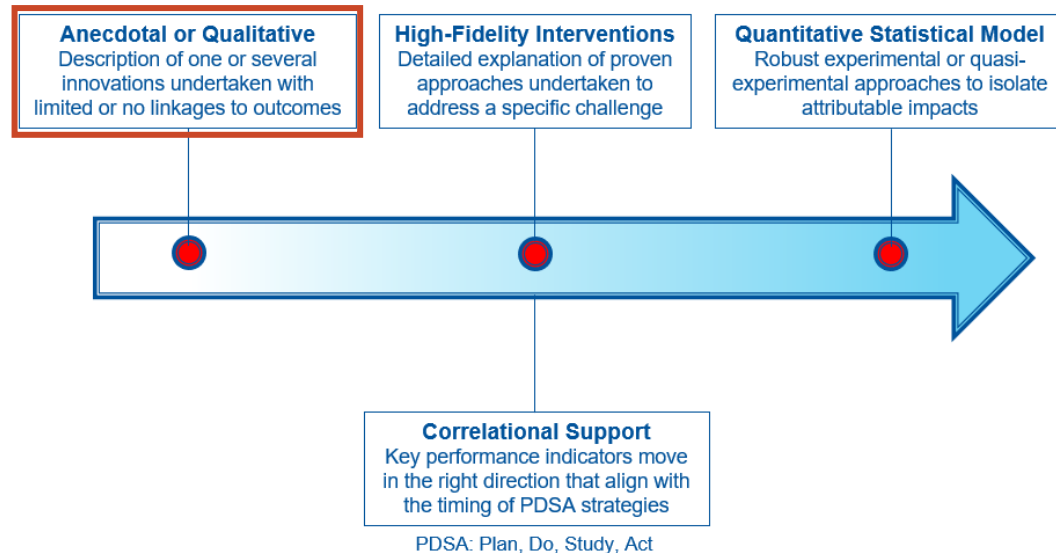
- Progress was made in describing success, but key elements (i.e., rationale and process data) were still missing.
- Story construction and inclusion of information was heavily dependent on the template provided.
- Improvement is still needed, but findings demonstrate that contractors align with specific guidance.

# Demonstrating Progress Toward Improved Stories (1 of 2)

## Examples of Initial Stories on Continuum of Success

Element	Example Excerpt
Not all stories have available baseline and outcome data:	<i>"The project is in the early stages. The QIO will monitor data, expected in 2022, that could show an impact on readmissions."</i>
Unclear what the intervention entails and how it is implemented:	<i>"Motivational interviewing training webinar."</i>
Vague or no process data:	<i>"The QIN continually contacted facilities by phone and email to offer support."</i>

## The Continuum of Success for Feasibly Measuring Attributable Impact

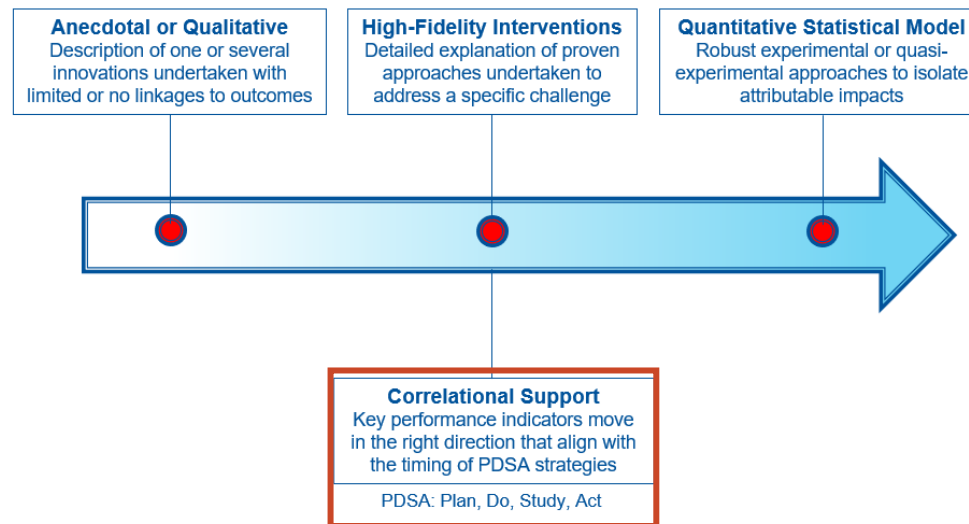


# Demonstrating Progress Toward Improved Stories (2 of 2)

## Examples of Recent Stories on Continuum of Success

Element	Example Excerpt
Majority of the stories provided baseline and outcome data comparison:	<i>“The hospital had high rates of opioid adverse drug events (ADEs) – 7.91 per 1,000 admissions in 2020 and 10.08 per 1,000 admissions in 2021. The hospital saw notable improvements in opioid ADEs, with rates decreasing to 3.27 per 1,000 admissions in 2022 and further decreasing to 2.12 per 1,000 admissions in Q1 2023.”</i>
More detailed description of the intervention:	<i>“Intervention started March 2022. System automatically documents entry and exit hand hygiene moments per person. Conducted staff training on using the system. Integration of the new system into daily workflow for all staff. Track compliance by department.”</i>
Provided information related to the process of interventions to some extent:	<i>“Two affinity group meetings were organized [...] An Infectious Disease Pharm. D worked directly with the hospital. Following each affinity group, resources were provided to the hospital[...] Examples include [...]”</i>

## The Continuum of Success for Feasibly Measuring Attributable Impact

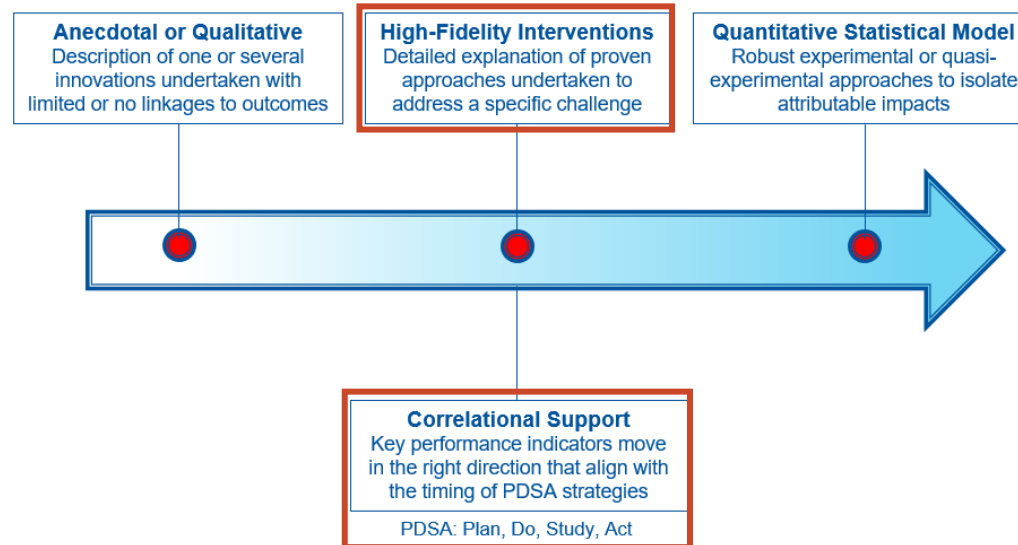


# Continuing Progress Toward Improved Stories

## Needed Elements for Improved Stories

Element
Clearly include the dates of data collection and the specific metric of interest for baseline and outcome data. Baseline and outcome data need to be comparable to understand the scale of progress and improvement.
Provide a specific description of the activities performed and provide theoretical and/or empirical evidence of why the intervention may achieve intended outcomes.
Clearly describe the process of interventions which include information such as the starting date, dates of each related activities, number of participants/attendees, frequency of administration, etc.

## The Continuum of Success for Feasibly Measuring Attributable Impact





# Lessons Learned and Actionable Next Steps

# Lessons Learned and Actions for Improved Stories

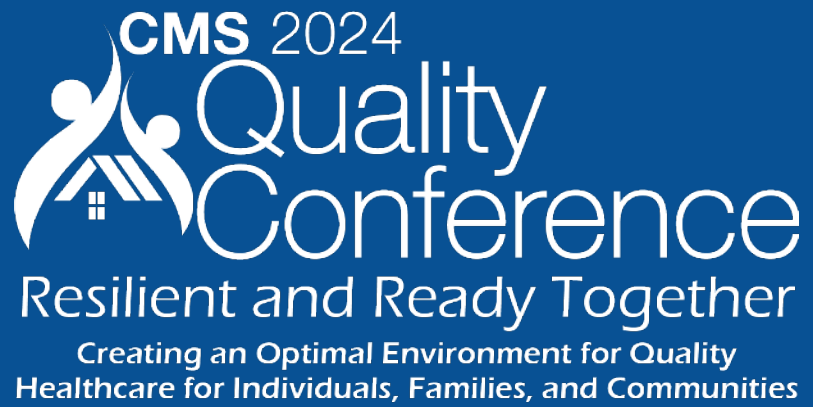
- Contractors are highly motivated and engaged in the process of demonstrating success.
  - Description of Success Stories are improved, but there are still gaps (e.g., description of baseline, reporting on process data, introduction of the intervention rationale, etc.).
  - Contractors closely adhere to resources provided.
- Progression along the Continuum of Success is dependent on:
  - Continued collaboration and alignment of expectations amongst all parties.
  - Further refinement of current contractor guidance and resources (e.g., templates and checklists for capturing success).

## Suggested Actions

### NQIIC Contractors

- Establish intervention with essential data elements (e.g., define problem, baseline, process, and outcome data)
- Collect, track, manage, and share detailed data (e.g., time periods, length of intervention, enough data points) related to support activities
- Perform analyses based on established evaluation methods to determine impact
- Identify and share stories of success, aligning with CMS-provided guidance





# Questions and Answers