AMGA
Advancing High Performance Health

AMGA Foundation

Adult Immunization (AI) Best Practices Learning Collaborative, Group 3: Case Study

Quincy Medical Group

Qunicy, IL

Organizational Profile

Innovative from the beginning, Quincy Medical Group (QMG) first introduced the concept of group practice to the Midwest 80 years ago. The first EKG machine was brought to Quincy, Illinois, in 1930 by one of the clinic's eventual founders. Seven years later, he joined with two other private practices to open the doors of the clinic. The idea of group medicine has advanced greatly over the last half century, but in 1937 the concept was new. In fact, at that time less than 100 group practices existed in the entire country, with only two or three located in Illinois. The early clinic contained a complete diagnostic and therapeutic unit and was considered to be one of the most modern buildings in the city.

Building upon the past and looking to the future, QMG continues to provide quality medical care to patients throughout Illinois, Iowa, and Missouri. Today, more than 150 providers practicing in 30 medical and surgical specialties team with approximately 1,100 QMG employees to serve more than 300,000 people annually across the tristate geographical. Primary and specialty services are provided at a central campus and at 11 regional rural health clinics. The main campus and nine of the 11 primary care locations are recognized as Patient Centered Medical Home (PCMH) Level III and are rural health certified. The locations serve several medically underserved counties that are defined by too few primary care providers. These counties may experience high infant mortality and poverty rates or a high elderly population. Health Professional Shortage Areas (HPSA) are designated as having shortages of primary Medicare care, dental, or mental health providers and may be geographic (a whole county or service area) or population (low-income or Medicaid-eligible) in nature. Services extend to include primary and specialty care outreach efforts in nine surrounding towns. These partnerships within the healthcare community have increased patients' access to care while improving care coordination and the patient experience.

QMG is a physician-owned and -led organization. The for-profit business plan includes a compensation model that rewards productive physicians while still allowing for proactive movement toward value. The corporate structure includes physicians who are shareholders of the organization, a board of directors who lead the physicians, six administrative chiefs, and a leadership team consisting of 30 directors. QMG continues to build upon these partnerships and evaluate patient needs to further broaden the network. The lean organization is built on efficiency and focused on value while delivering outstanding health care to the region.

Throughout eight decades of serving patients, QMG is well known and valued in the close-knit community. They pride themselves in community benevolence and the impact of being an organization that is more than 1,000 employees strong. The employees and providers live and work in the communities the organization serves. They can often be seen volunteering for dozens of events, fundraisers, and community initiatives throughout the year. It is clearly stated in the QMG mission that the organization believes in creating a healthier tomorrow for its patients and community.

Acronym Legend

AI Collaborative: AMGA's Adult Immunization Best Practices Collaborative
AWV: Annual Wellness Visit
CDC: Centers for Disease Control and Prevention
EMR: Electronic Medical Record
HPSA: Health Professional Shortage Areas
HP2020: Healthy People 2020
PCMH: Patient Centered Medical Home
QA: Quality Assurance
QMG: Quincy Medical Group

Executive Summary

The intervention detailed below intended to increase influenza and pneumococcal immunizations among patients 18 years of age and older. Research indicates that individuals who receive these immunizations are less likely to require an emergency room visit or subsequent inpatient admission due to complications from influenza, pneumonia, or a related comorbidity. This leads to lower overall health care costs and higher quality outcomes for the population served.[1,2] Early reports indicated that not all data was accurately captured in the electronic medical record (EMR) and there was a need to backfill data on populations in order to correctly identify patients who were truly in need of the named immunizations.

Recommendations discussed include:

- Data capture and backfill into the EMR
- Development of a bidirectional data feed with state registries and the EMR
- Deployment of the Medicare Annual Wellness Visit (AWV) to increase accuracy of the medical record and delivery of immunizations
- Employee education on proper workflow, documentation, and importance of the vaccines

Limitations identified include:

- Formal email communications are limited to those providers and employees who open their email
- Patients who self-report immunization status do so based on their recollection of the date administered

Program Goals and Measures of Success

AI Collaborative Goals

Collaborative goals were set for the AMGA Adult Immunization Best Practices Collaborative (AI Collaborative) (Groups 2 and 3 participants). The collaborative goals were set based on reviewing the Healthy People 2020 goals from the federal office of Disease Prevention and Health Promotion (HP2020),[3] baseline data for each group, and with input from the AI Collaborative advisors (see Appendix).

QMG Goals

Organizational goals were set by the project team based on analysis of baseline data used to identify the population's greatest areas of opportunity with consideration to timeline and available resources (see Appendix).

Data Documentation and Standardization

QMG used Optum One to monitor and report their selected measures. Optum One creates variables using underlying data from a variety of data sources, including Rx tables, Rx history/patient reports, immunization tables, CPT/G codes, health maintenance tables, and ICD codes. Custom denominator lists were created by the Optum Analytics data team and uploaded into the application for each reporting period. These lists along with reporting templates in the Optum One application were used to retrieve data needed for AMGA reporting and to identify populations for QMG interventions.

Population Identification

Targeted populations for preventive immunizations included patients over age 65 and patients identified as being high-risk according to Healthy People 2020. QMG specialty providers in Nephrology, Allergy, and Pulmonology were engaged in a focused collaborative effort to improve vaccination rates of high-risk patients treated in their practices. In addition to the above population, emphasis was placed on patients that were aligned to value-based and risk bearing contracts.

In collaboration and partnership with local employers, QMG provides on-site employee influenza vaccination clinics. QMG also offers its employees and their immediate family members access to free on-site flu shots. Staff are strongly encouraged but not mandated to receive the influenza vaccination. As part of QMG's comprehensive employee wellness program, an annual flu shot is required to receive the highest level of employee wellness reward.

Resources for the advancement of the vaccination program are evaluated by a multidisciplinary team that meets throughout the year to strategize for the annual vaccination season. Projections are made that include the anticipated supply of vaccinations needed, and labor resources are allocated to respective clinics to provide the necessary coverage. Last year, QMG provided 7,108 influenza vaccinations and 4,752 pneumococcal vaccinations.

All primary care sites provide and administer immunizations. Specialty clinics were trained on the proper workflow to pull in outside immunizations into the EMR from outside registries. In addition, area partner skilled nursing facilities administer immunizations and send patient status to QMG for primary care patients residing in long-term care facilities.

Intervention

Patient, Provider, and Staff Education

The organization collaborated with the internal marketing team to send educational emails to patients regarding flu and pneumococcal immunizations. The email included details of the organization's pre-determined flu shot clinic hours and the importance of being immunized. In addition to direct

patient emails, Facebook posts were created to highlight the importance of immunizations. The organization also initiated targeted telephone calls to patients aged 65 and older needing a pneumococcal vaccine via Televox patient outreach. The message informed patients of the importance of immunizations and directed them on how they could become up to date with their pneumococcal vaccine.

Internal communications were sent to all members of the organization on the importance of acquiring the status of patient flu shots and proper documentation in the medical record. QMG utilized the "Quality Spotlight" email platform as the marketed email communication for all quality items. The communication included the process to document immunizations received outside the facility and how to discuss the importance of receiving a flu and pneumococcal vaccine with patients.

Backfill Data

The quality data team led a project to identify all patients who had received immunizations at outside facilities and backfill the data into the appropriate field in the organization's medical record. This project ensured that the medical record was up-to-date and allowed for the nursing staff in the offices to work more efficiently. Over the course of six months, the team identified over 1,000 missing immunizations and backfilled the information contained in external medical records and state registries into the patients' medical records.

Bidirectional Data Feed with EMR

Optimization of the EMR to populate immunization status from state registries is key to documentation accuracy and efficiency. A bidirectional data feed was established with two state immunization registries, Iowa and Illinois. This feed pulls in data from the state registry when a patient has an update in the registry. The EMR notifies the end user of the update, and the end user is then able to import any outside immunizations and reconcile them with the patients' EMR. Conversely, when an immunization is administered in the clinic and placed in the discrete field in the EMR, that information is pushed to the state registry.

EMR Workflow

The practice identified a proper documentation process that ensures reporting on influenza and pneumococcal vaccinations happens thorough a discrete, reportable field. The documented process was rolled out to all nursing staff in all twelve locations and to the care management team. Hour-long, in-person educational sessions were held at all sites of care to ensure that each clinical staff member understood the new workflow and the expectation of capturing the patient status at every appointment. The care management team completes home visits to patients post-discharge from an inpatient or skilled care setting. During these visits, the care managers were expected to identify patient immunization status and record the information in the EMR or administer the immunization if still needed. Patient-level data was generated on a monthly basis and distributed to primary care offices to identify individuals who do not meet one or more metrics. These lists were used by primary care and care management teams for targeted outreach efforts.

Outcomes and Results

The interventions depicted in the Appendix resulted in a consistent increase in immunization rates in all measures from the baseline period. Although all measures saw significant increase, Measures 2a and 3 resulted in the biggest improvement.

A separate project launched simultaneously with the intervention that led to improvement in the rates and should be noted. The organization offered Annual Wellness Visits to all Medicare patients in 2017 and 2018. The focus of the visits was to ensure that the medical record was up to date, including items such as hierarchical category coding, fall risk assessments, depression, colon and breast cancer screenings, and immunization status. The organization went from a 0.2% Annual Wellness Visit completion rate in January 2017 to a 42.6% completion rate in November 2018, resulting in over 5,000 completed annually.

Lessons Learned and Ongoing Activities

Backfilling of data and workflow documentation proved to be most successful in increasing immunization rates in the time allowed. These efforts also assisted in ensuring accurate patient medical records and will allow for more patient-centered conversations between the care teams and their patients during future appointments.

An area of opportunity that was realized as a result of this intervention was to initiate the backfill process sooner. This

would have allowed for more accurate lists being delivered to the care teams earlier on, resulting in more focus being placed on getting patients in for their immunizations. It also was found that issues still exist with the bidirectional data feed in the EMR. Work to improve this process continues.

The outcome of the backfilled data resulted in accurate patient lists. These lists will continue to be run and delivered to the primary care offices. The offices will continue to use these lists for targeted outreach and for chart prep prior to patient appointments.

References

1. Centers for Disease Control and Prevention (CDC). People at high risk of developing flu-related complications. cdc.gov/flu/about/disease/high_risk.htm.
2. Centers for Disease Control and Prevention (CDC). Epidemiology and Prevention of Vaccine-Preventable Diseases. cdc.gov/vaccines/pubs/pinkbook/pneumo.html.
3. Office of Disease Prevention and Health Promotion (ODPHP). Healthy People 2020. healthypeople.gov.

Appendix

Collaborative Goals

Measure	Healthy People 2020	Collaborative Goal
Measure 1 (65+) Any	90%	90%
Measure 1 (65+) Both PPSV and PCV*	90%	60%
Measure 2 (High-Risk)	60%	45%
Optional Measure 2a (At-Risk)**		
Measure 3 (Flu)	70%/90%***	45%

* Increasing "Both" is a good goal for Groups which are already doing well on "Any"

** According to CDC guidelines, it is not currently recommended that the at-risk population receive PCV. Therefore,"PPSV" or "Unknown pneumococcal vaccination" are numerator options for Measure 2a.

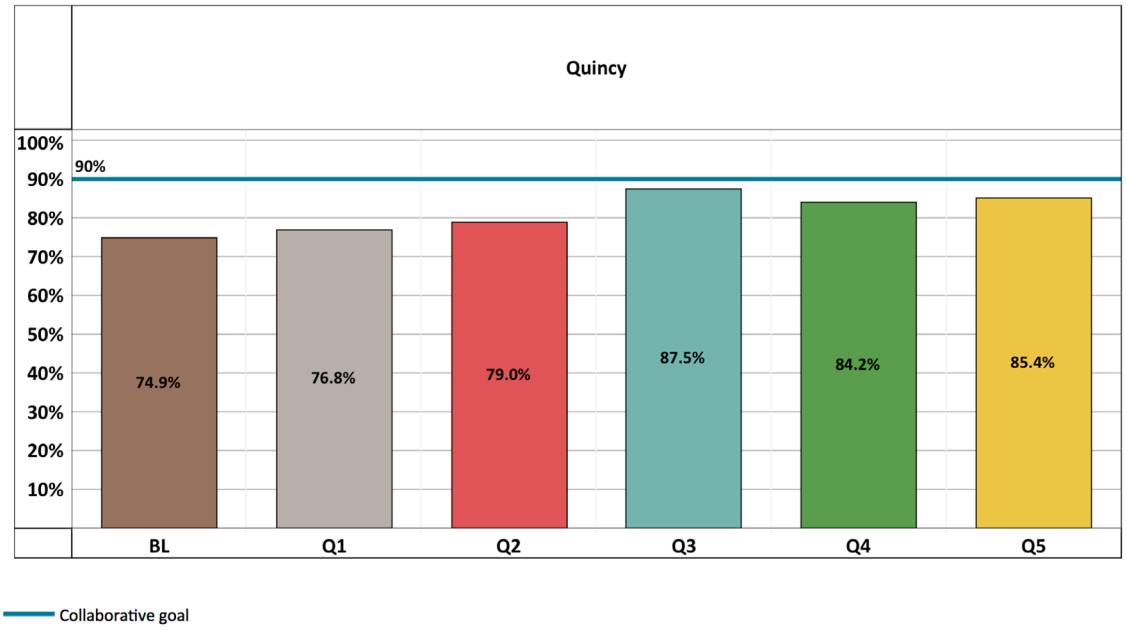
*** 70% for all patients, 90% for Medicare patients

Operational Goals

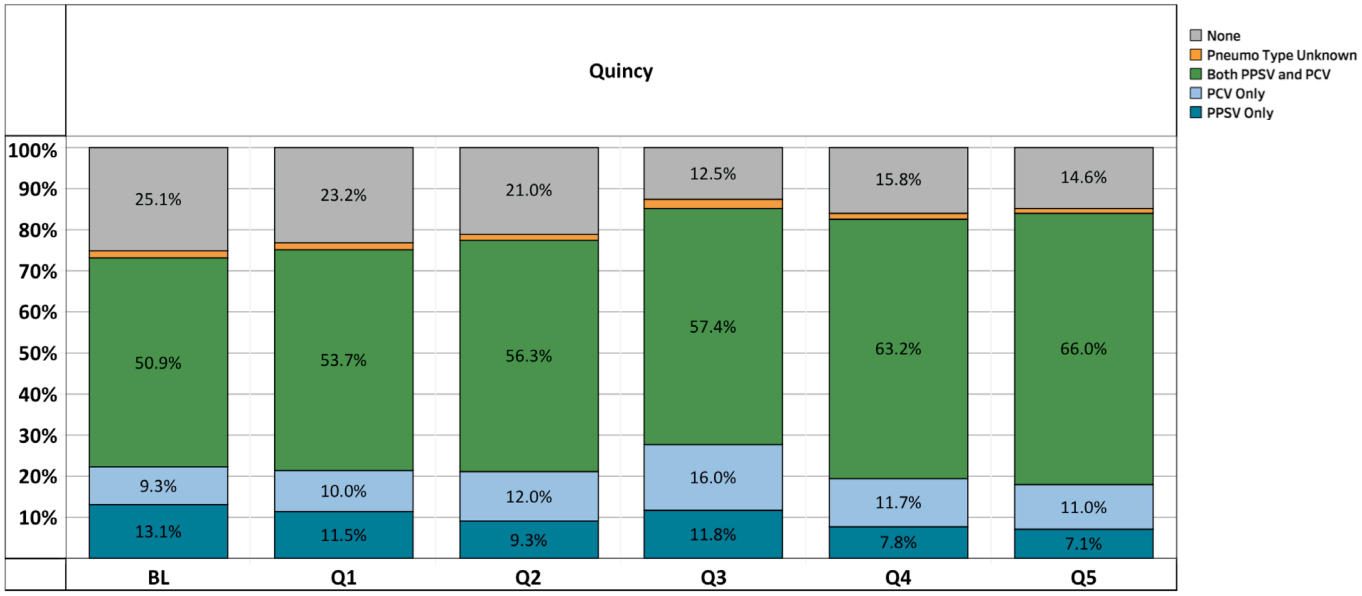
Measure	Baseline	QMG Goal	Collaborative Goal
Measure 1 (65+) Any	74%	**85%**	90%
Measure 1 (65+) Both	49%	**60%**	60%
Measure 2 (High-Risk)	32%	**45%**	45%
Measure 2a	29%	**40%**	N/A – Optional
Measure 3 (Flu)	42%	**50%**	45%

Appendix

Measure 1 – Pneumococcal (Any) Immunization for Adults Ages ≥ 65

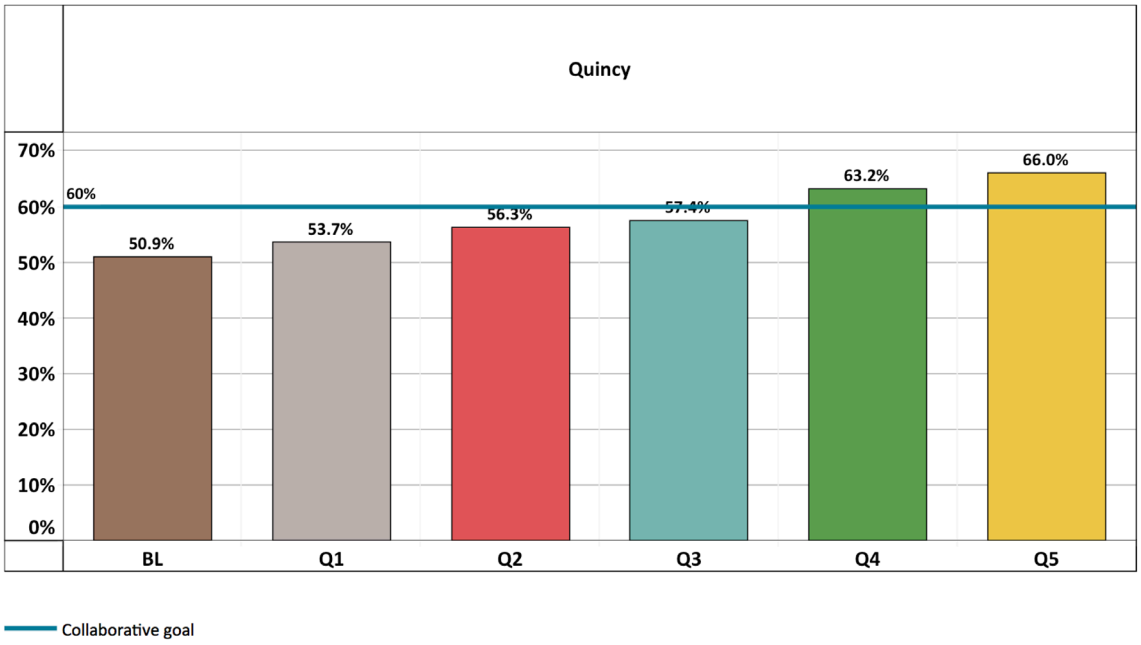


Measure 1 – Pneumococcal (Any) Immunization for Adults Ages ≥ 65

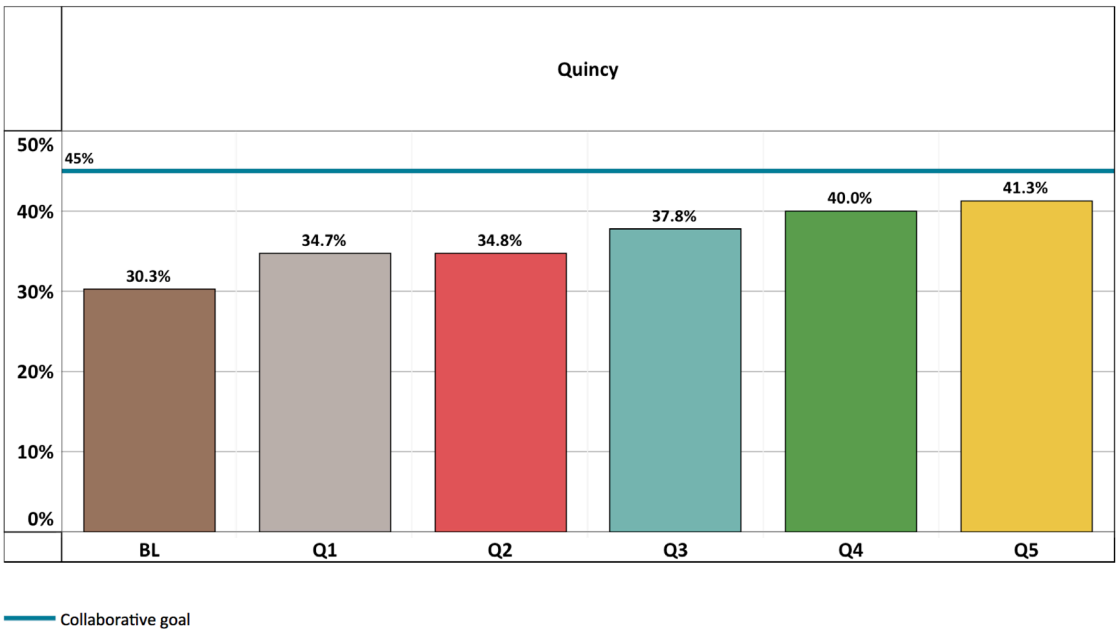


Appendix

Measure 1 – Both PPSV and PCV Immunization for Adults Ages ≥ 65

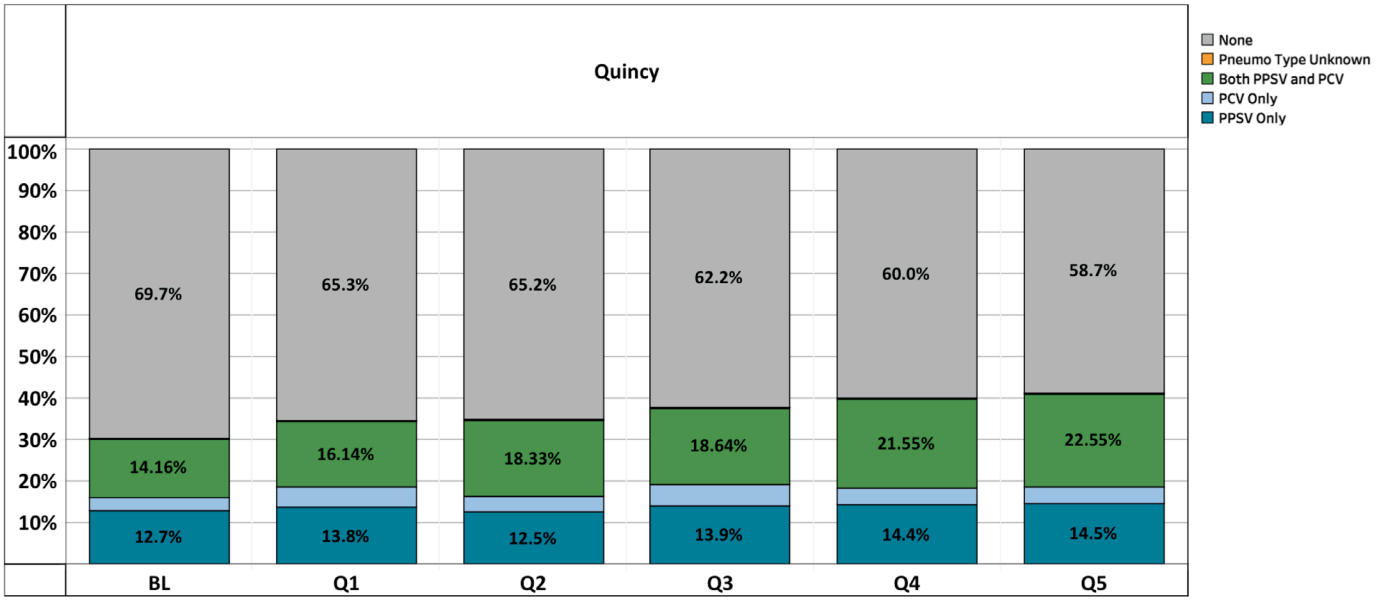


Measure 2 – Pneumococcal (Any) Immunization for Adults Ages 19–64 with High-Risk Conditions

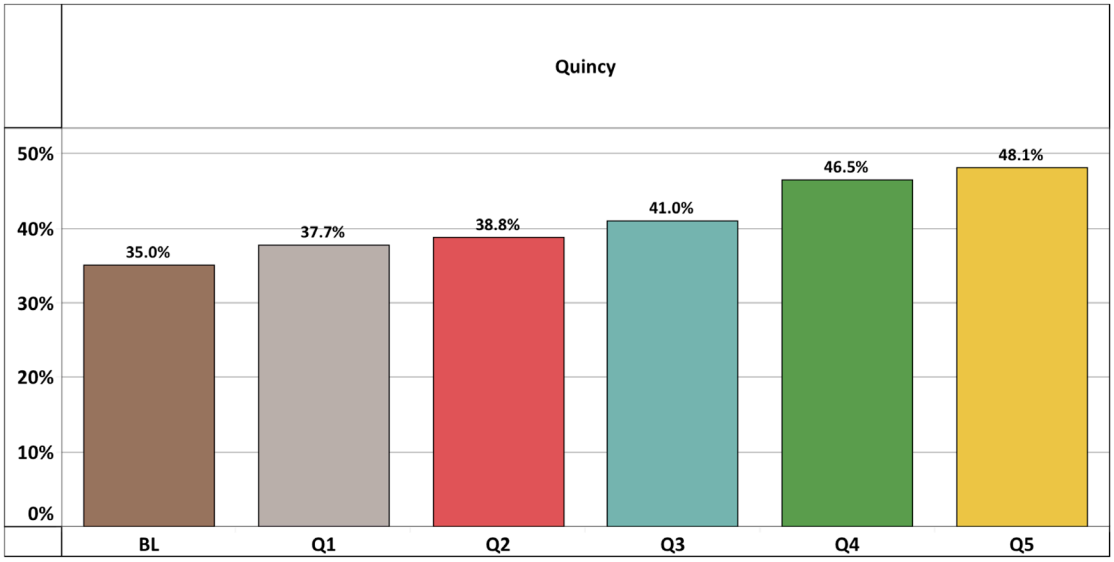


Appendix

Measure 2 – Pneumococcal (Any) Immunization for Adults Ages 19–64 with High-Risk Conditions

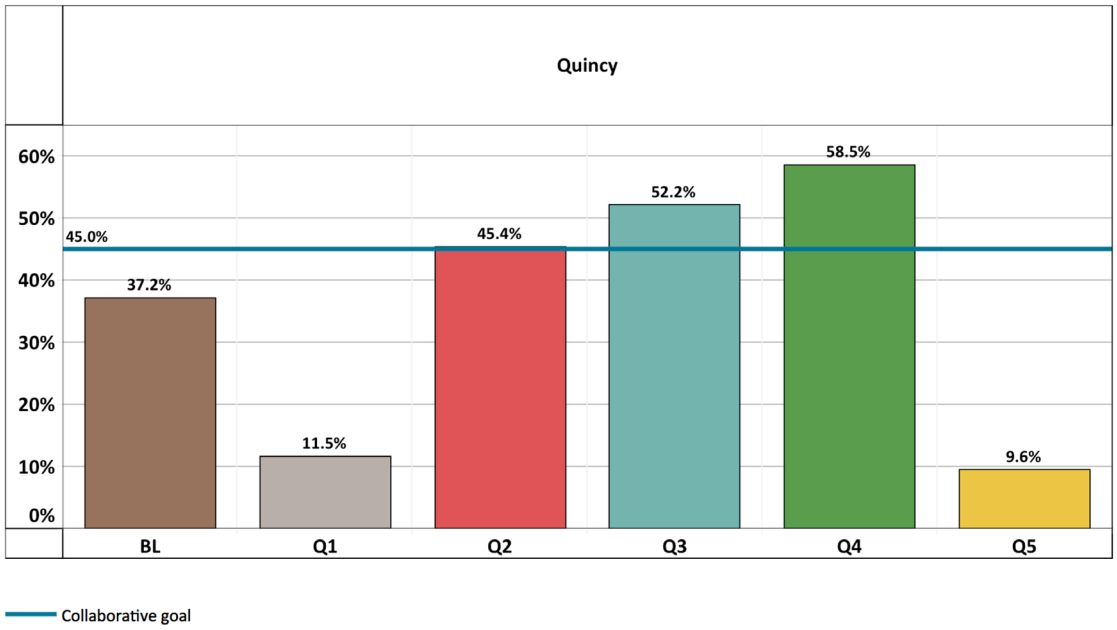


Measure 2A – Pneumococcal (Any) Immunization for Adults Ages 19–64 with At-Risk Conditions



Appendix

Measure 3 – Influenza Immunization, Age ≥ 18



Project Team

Hannah Brown
Director of Population Health

Aaron Clark
Director of Clinical Analytics

Tasha Hiland
Director of Primary Services

AMGA
Advancing High Performance Health

AMGA Foundation

One Prince Street
Alexandria, VA 22314-3318

amga.org/foundation

OPTUM®

AMGA's Distinguished Data and Analytics Collaborator

Pfizer

This project was sponsored by Pfizer Inc. Pfizer was not involved in the development of content for this publication.