



Advancing High Performance Health

AMGA Foundation

**Adult Immunization (AI)
Best Practices Learning
Collaborative, Group 2:
Case Study**

***UPMC
Susquehanna
Williamsport, PA***



Organizational Profile

UPMC Susquehanna is a nonprofit, integrated healthcare system that includes inpatient, outpatient, and ambulatory care services alongside physician practices and emergency services. Over the years, UPMC Susquehanna has grown to serve a rural region with facilities in three adjacent counties that include seven hospitals, a large multispecialty medical group, a family medicine residency, and an organized system of care as part of a larger academic health system (University of Pittsburgh Medical Center [UPMC]). This partnership supports a vision and goal to embrace opportunities that will expand healthcare services and technology, and advance quality care for surrounding rural areas while still maintaining a patient- focused mission. For the purpose of the AMGA Adult Immunization Best Practices Learning Collaborative (AI Collaborative), UPMC Susquehanna seized the opportunity to become part of a best practice endeavor, the benefits of which will be valuable to its large rural older patient population.

Recent milestones for UPMC Susquehanna include:

- October 2016—Susquehanna Health announced that it officially joined UPMC, becoming UPMC Susquehanna
- October 2017—UPMC Susquehanna officially welcomed Lock Haven Hospital and Sunbury Community Hospital, including affiliated physician offices
- March 2018—UPMC Susquehanna officially welcomed Charles Cole Memorial Hospital, including affiliated physician offices

UPMC Susquehanna serves a rural region located in northern central Pennsylvania, and is comprised of:

- Lycoming County (three hospitals, a large multispecialty medical group, and a family medicine residency)
- Tioga County (one hospital, a skilled nursing facility, and multispecialty medical group)
- Northumberland County (one hospital and multispecialty medical groups)
- Columbia County (two specialty offices)
- Clinton County (one hospital, a skilled nursing facility, and multispecialty medical group)
- Potter County (one hospital, a skilled nursing facility, and multispecialty group)

Acronym Legend

AI Collaborative: AMGA's Adult Immunization Best Practices Collaborative

CPT: Current procedural terminology

EHR: Electronic health record

HP2020: Healthy People 2020

UPMC: University of Pittsburgh Medical Center

UPMC Susquehanna has a total of 318 providers, 62 primary care physicians (the proportion of primary care is 34%), 46 primary care advanced practice professionals, 121 specialists, and 89 specialty advanced practice professionals. Sites of care include 66 specialty offices, 14 family practices, and four long-term care facilities.

Patients served:

- 413 licensed acute beds, including 27 bassinets
- 36 physical medicine and rehabilitation beds
- 45 licensed psychiatric beds
- 348 long-term care beds
- 98,874 annual emergency department visits
- 1,241 babies born in maternity units
- 612,976 outpatient visits
- 111,560 home care and hospice visits

UPMC Susquehanna has always been a community partner providing subsidized medical clinic services to the underserved as well as ambulance and EMT services to the metropolitan area of the community.

Executive Summary

For the AI Collaborative, UPMC Susquehanna focused on three main interventions:

- Pneumococcal vaccination—adults 65+
 - UPMC Susquehanna experienced an increase of 6%
- Pneumococcal vaccination—adults aged 19-64 with a high-risk condition
 - UPMC Susquehanna experienced an increase of 11%

- Influenza vaccination—adults aged 18 and older
 - UPMC Susquehanna experienced an increase of 14%

Challenges encountered as UPMC Susquehanna moved through the AI Collaborative included:

- Staff buy-in
- Discovery that baseline data was skewed
- Outside organizations who provided immunizations and how that impeded documentation/reporting
- State registry is not bi-directional
- Inpatient vaccines
 - Changes to current procedural terminology (CPT) codes occurred during the course of the AI Collaborative, an event that was not realized by the UPMC Susquehanna team for five months. A monthly report generated by IT was blank for this period of time, triggering a review of inpatient immunization processes that resulted in the inclusion of the new CPT codes on the report and thereby allowing the team to update outpatient records

A lesson learned was the importance of maintaining a consistent presence and issuing reminders to offices. The immediacy of capturing the data around employee flu clinics and for patients receiving immunizations outside UPMC Susquehanna was also found to be extremely important for the sake of more accurate reporting. It's believed that continued work with IT to have the flu matrix available in a timely manner could provide better care and improve patient satisfaction.

Program Goals and Measures of Success

The AI Collaborative goals were set by AMGA Foundation based on reviewing the Healthy People 2020 goals from the federal office of Disease Prevention and Health Promotion (HP2020)¹, baseline data for each group, and with input from the AI Collaborative advisors. Main goals and objectives included increasing pneumococcal and influenza immunization rates and reducing the clinical and economic burden of vaccine preventable diseases. The table below displays UPMC Susquehanna's goals in relation to the AI Collaborative's and Healthy People 2020's goals.

Data Documentation and Standardization

After learning what the measures and parameters (see Table 1 below) for the AI Collaborative were, specifications were sent to UPMC Susquehanna's Chief Medical Informatics Officer. The report was developed in the electronic health record (EHR) using these specifications. A baseline report was generated and subsequent reports populated every quarter. The information from these reports was downloaded into the AMGA AI Collaborative portal each quarter.

Population Identification

There are 14 primary care offices and 10 specialty offices where adult immunizations are provided. The Chief Medical Information Officer created quarterly reports identifying those patients that fell within the AI Collaborative's parameters. These reports were shared with clinical office staff that used these as

Table 1

Measure	Healthy People 2020	Collaborative Goal	UPMC Susquehanna
Measure 1 (65+) Any	90%	90%	87%
Measure 1 (65+) Both PPSV and PCV*	90%	60%	73%
Measure 2 (High-Risk)	60%	45%	43%
Optional Measure 2a (At-Risk)			50%
Measure 3 (Flu)	70%-90%**	45%	38%

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

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

a tool to identify patients needing immunizations. In addition, UPMC Susquehanna's EHR has care guidelines that identify immunizations that are due.

Intervention

UPMC Susquehanna developed an action plan based on the Adult Immunization Framework that encompassed: standing orders, chart audits, rumor control, and vaccine timing. UPMC Susquehanna also focused on provider and staff education, including devoting a section of its medical group newsletter to include information about education, awareness, success stories, and quarterly results by office.

In terms of patient education, adult immunization fact sheets for patients were posted in all of the family practice offices and lapel buttons encouraging patients to ask questions about immunizations were worn by all clinical staff.

Outcomes and Results

(See Appendix)

Lessons Learned and Ongoing Activities

Among the lessons learned by UPMC Susquehanna as a result of the AI Collaborative:

- Rewards should be based on predetermined benchmarks to be eligible for incentives
- Results based on relative values as opposed to absolute values are more appropriate because offices with small patient panels only need to immunize a few patients to

dramatically increase their percentages; conversely, offices with very large patient panels must immunize many patients to show any improvement in their overall percentage

UPMC Susquehanna encountered numerous challenges during the course of the AI Collaborative. Chiefly, staff and patient myths regarding immunizations were an obstacle, as were patients' inability to travel during inclement weather. Likewise, there is a lack of transportation services in rural areas, which also affects the ability to receive vaccinations. Costs associated with receiving immunizations (such as being uninsured copays), limited flu clinic hours, and minimal flu clinic advertising were also discovered to be challenges.

Next steps for UPMC Susquehanna revolve around sustainability and scalability places, such as continuing to implement the action plans that were developed for the AI Collaborative to improve adult immunizations rates. As well, UPMC Susquehanna will develop additional action plans based on the above challenges identified.²

References

1. Office of Disease Prevention and Health Promotion (ODPHP). Healthy People 2020. Retrieved from <https://www.healthypeople.gov/>.
2. Riggie, L. (2018). Best practices in adult immunizations collaborative. Presented at UPMC Susquehanna Quality & Safety Committee meeting April 5, 2018.

Collaborative Goals

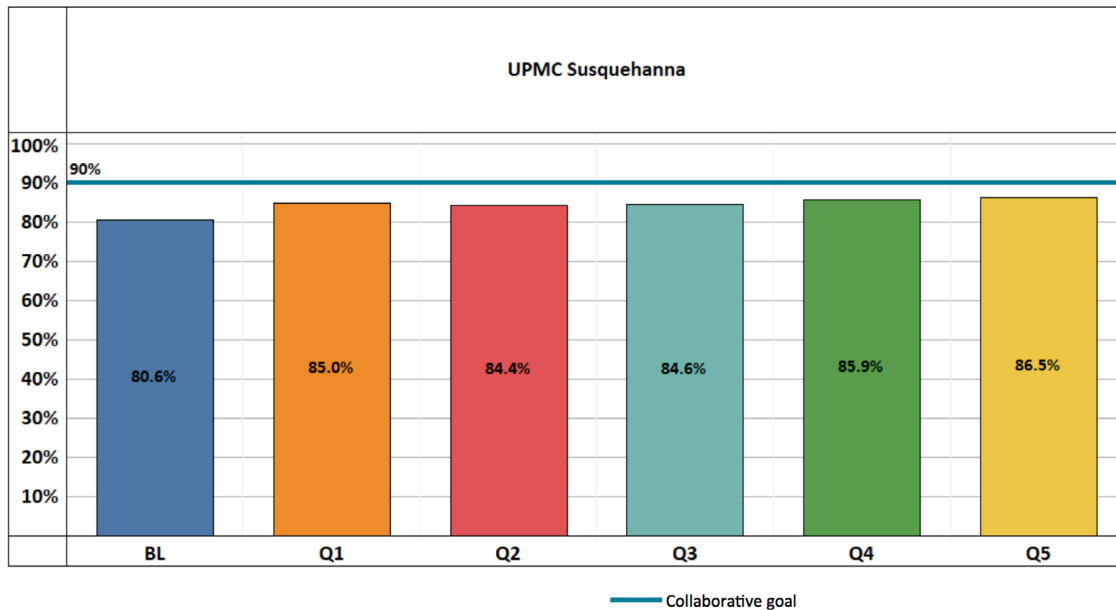
Measure	Healthy People 2020	Collaborative Goal
Measure 1 (65+) Any	90%	90%
Measure 1 (65+) Both PPSV and PCV*	90%	60%
Measure 2 (High-Risk)	60%	45%
Optional Measure 2a (At-Risk)**		
Measure 3 (Flu)	70%/90%***	45%

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

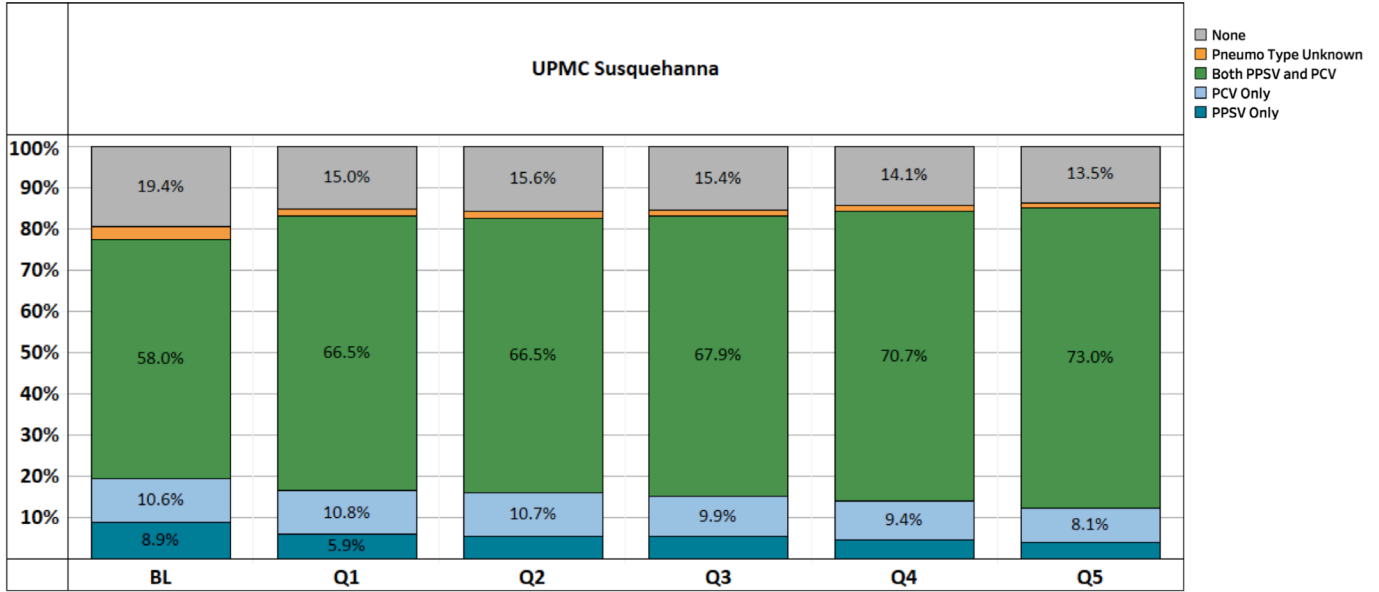
** According to CDC guidelines, it is not currently recommended that the at-risk population receive PCV. Therefore, “PPSV” or “Unknown pneumococcal vaccination” are numerator options for Measure 2a.

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

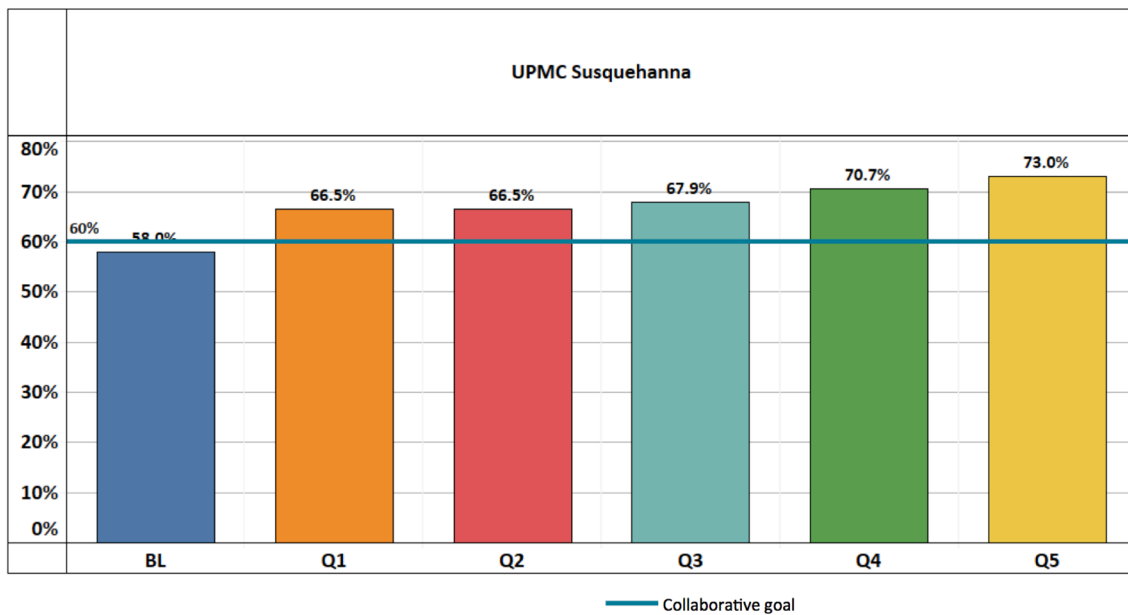
Measure 1 – Pneumococcal (Any) Immunization for Adults Ages ≥ 65



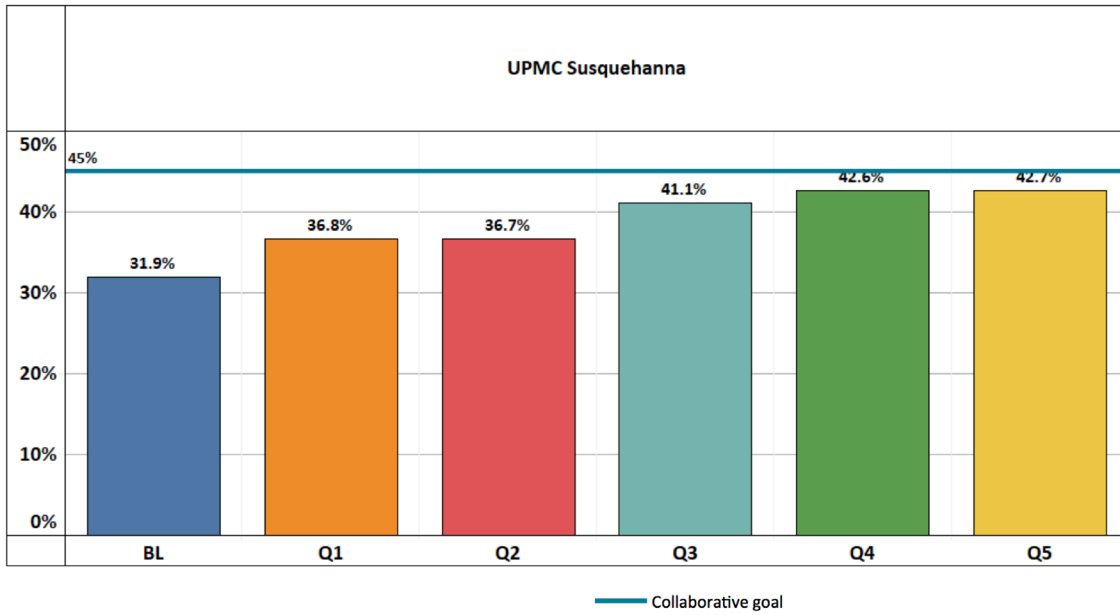
Measure 1 – Pneumococcal (Any) Immunization for Adults Ages ≥ 65



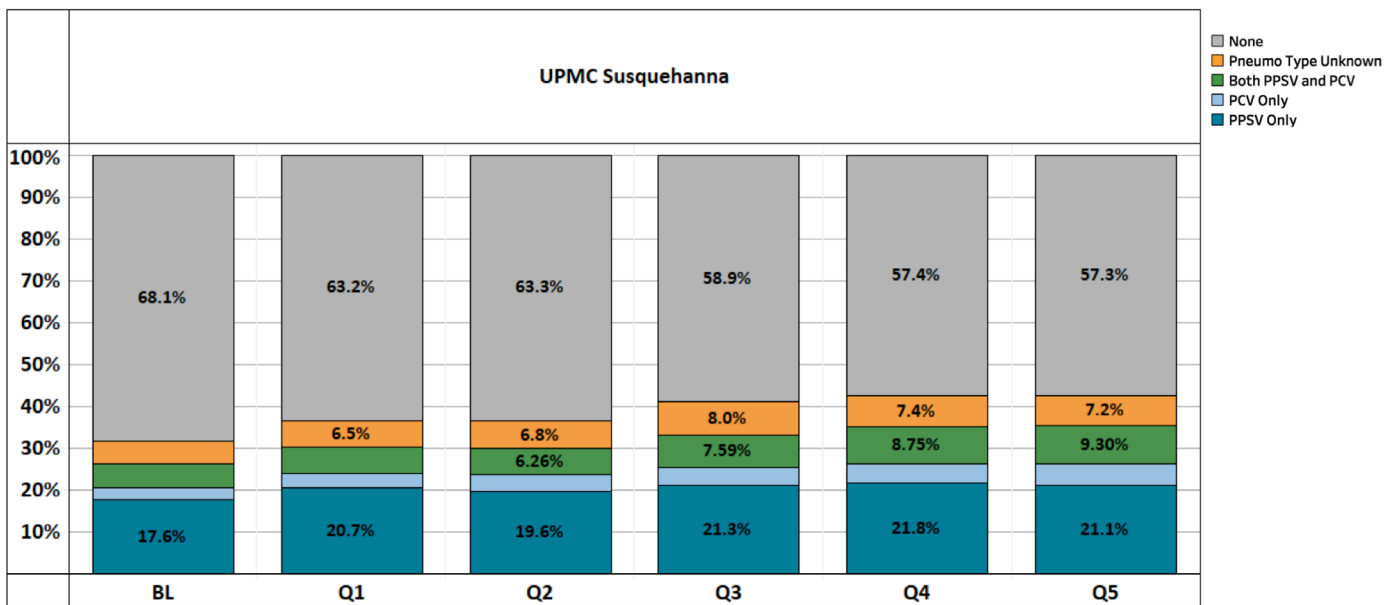
Measure 1 – Both PPSV and PCV Immunization for Adults Ages ≥ 65



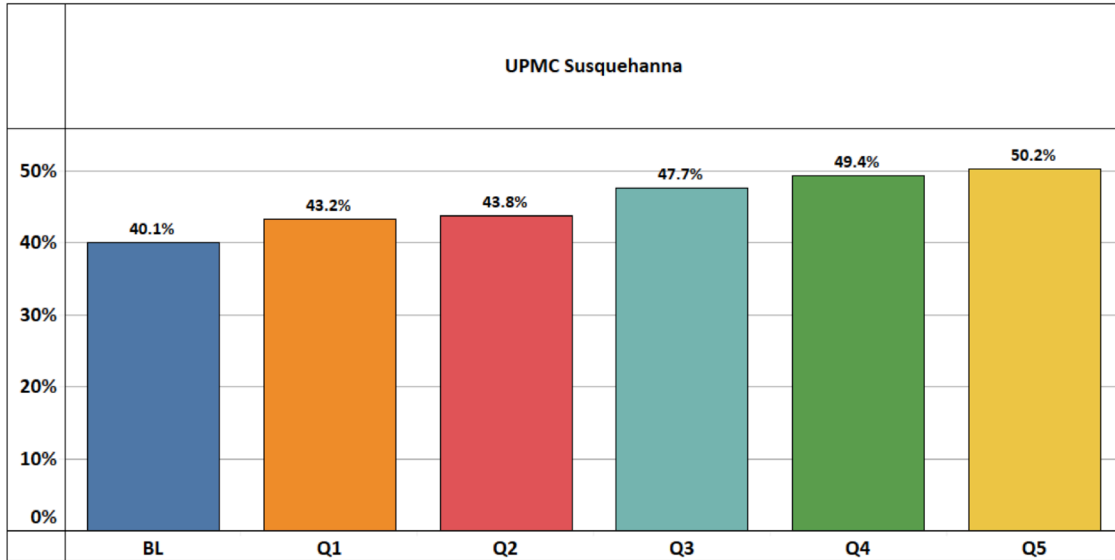
Measure 2 – Pneumococcal (Any) Immunization for Adults Ages 19–64 with High-Risk Conditions



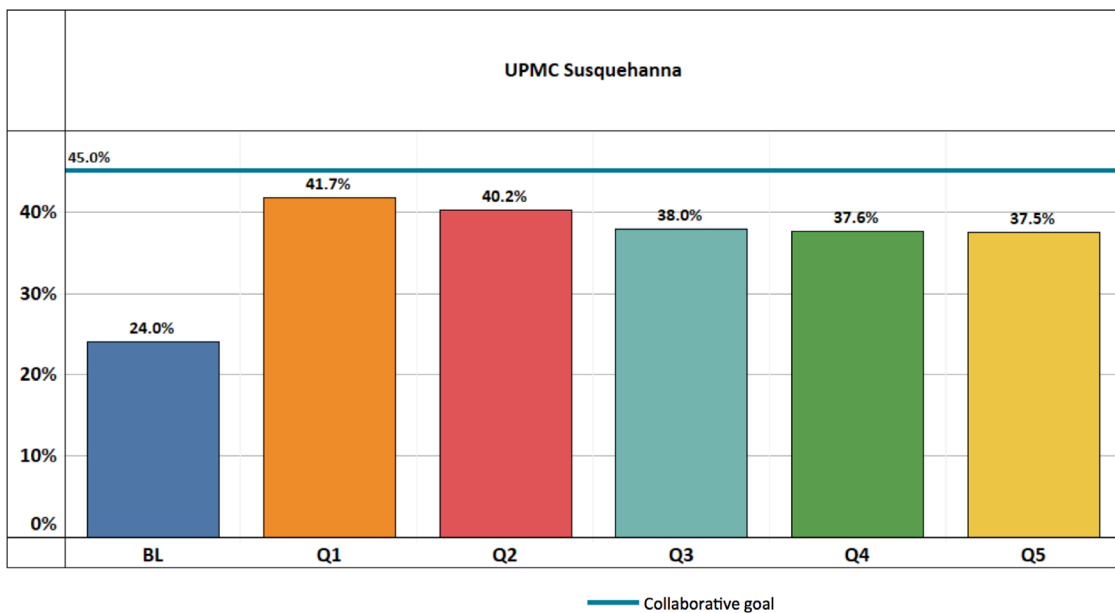
Measure 2 – Pneumococcal (Any) Immunization for Adults Ages 19–64 with High-Risk Conditions



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



Measure 3 – Influenza Immunization, Age ≥ 18





Best Practices in Adult Immunizations Collaborative



Collaborative effort to increase adult immunization rates thereby reducing the clinical and economic burden of vaccine preventable diseases.

Immunization	Baseline Data 1/1/16 – 12/31/16	SHMG Current Rate 1/1/17 – 3/31/17	SHMG Current Rate 4/1/17 – 6/30/18	SHMG Current Rate 7/1/18 – 9/30/17	SHMG Current Rate 10/1/17 – 12/31/17	SHMG Current Rate 1/1/18 – 3/31/18	Healthy People 2020 Goal
Pneumococcal adult ≥ 65	81%	85%	84%	85%	86%	87%	90%
Pneumococcal high- risk adults 19-64	32%	37%	37%	41%	41%	43%	60%
Influenza adults 18 and older	24%	42%	40%	38%	38%	38%	90%

Project Team

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