AMGA
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AMGA Foundation

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

SwedishAmerican Health System

Rockford, IL

Organizational Profile

SwedishAmerican Health System, a division of UW Health, was founded in 1911. It is an integrated health system located in Rockford, Illinois, with two hospitals, a cancer center, and a medical group, which consists of over 28 ambulatory care clinics. It serves the residents of three counties—Winnebago, Ogle, and Boone. The medical group was established in 1994 and has grown to include 16 specialties with over 90 physicians, 31 advanced practice nurses (APNs), six case managers, and one social worker serving approximately 103,000 unique lives annually.

Executive Summary

SwedishAmerican Medical Group (SAMG) made the decision to participate in AMGA's Adult Immunization Best Practices Learning Collaborative (AI Collaborative) for a second time. The first AI Collaborative provided direction and assisted with the development of its interventions, which included education of providers and staff, physician engagement, daily care gap reporting, and adding pneumococcal 65+ vaccination to its physician compensation scorecard. However, there was not the same level of improvement with high-risk patients. To ensure that high-risk patients were reached during the second AI Collaborative, the organization used telephone outreach calls via Emmi. Patients 65+ were part of the Emmi outreach campaigns too. The organization also continued its attempt to implement a bi-directional interface with the Illinois State Vaccine registry, but continued to meet challenges during implementation. Results were achieved within all measures (although each slightly under goal), with the exception of both pneumococcal polysaccharide vaccine (PPSV) and pneumococcal conjugate vaccine (PCV) for pneumococcal 65+, which exceeded the goal.

SAMG continues to keep focus on pneumococcal 65+ as a measurement, as well as focus on those patients that are considered high-risk. During this AI Collaborative, there were two specific interventions focused on influenza: the first was to ensure all employees received the vaccination and that those results were documented in the electronic medical record (EMR); the second was to send a reminder to all patients via the patient portal.

Acronym Legend

AI Collaborative: AMGA's Adult Immunization Best Practices Collaborative

APN: Advanced practice nurse

CDC: Centers for Disease Control and Prevention

EMR: Electronic Medical Record

HP2020: Healthy People 2020

PCV: Pneumococcal Conjugate Vaccine

PPSV: Pneumococcal Polysaccharide Vaccine

SAMG: SwedishAmerican Medical Group

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 (see Appendix).

SAMG aligned its goals with the AI Collaborative goals, which included pneumococcal 65+ at 90%, both PPSV and PCV for pneumococcal 65+ at 60%, pneumococcal high-risk at 45%, and influenza at 45%.

Data Documentation and Standardization

At the initiation of the AI Collaborative, Optum One analyzed the potential areas of immunization documentation sources for the groups in this AI Collaborative and determined that immunizations were captured in:

- Rx Tables
- Rx Patient Reports
- Immunization Tables
- Health Maintenance Tables
- CPT/G codes
- ICD-9 codes

Significant variation in documentation patterns can be seen across groups, resulting from variations in EMR provider and configuration, immunization documentation protocols, and

adherence to documentation protocols. For the groups in the AI Collaborative, pneumococcal and influenza vaccinations were most commonly documented in Immunization Tables, Health Maintenance Tables, and CPT/G codes. The least commonly used sources for documentation among the groups were Rx Tables and Rx Patient Reports.

For the AI Collaborative groups that demonstrated documentation between multiple sources, the Optum team provided this data so that groups could determine a standardized documentation best practice internally.

Population Identification

SwedishAmerican took separate approaches to identifying patients for pneumococcal and influenza outreach. For pneumococcal outreach, Optum One was used to identify patients over 65 who were pneumococcal vaccine naïve. 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 (see Appendix). Eligible patients were added to an Optum One registry, used by the Optum technology partner, Emmi Solutions, to place automated interactive phone calls to targeted patients (see Appendix).

The medical group has nine primary care clinics where the majority of the adult patient population receives their immunizations and where the focus of immunization continued throughout the AI Collaborative. Specialty clinics, such as pulmonology, endocrinology, and cardiology, were not included during the first AI Collaborative but were included during this one since they had become equipped to store and administer vaccines in the interim.

Patients aged 65+ that were missing either one or both pneumococcal vaccines were identified through a monthly report (patient list) that was distributed electronically to all primary care providers and their clinic operation managers. Additionally, a daily care gap report identified those patients needing a vaccine that were already in the clinic for an appointment (see Appendix).

Intervention

The organization's formalized plan of implementation originally included a bi-directional interface with the Illinois State Vaccine registry. However, there were some challenges with the development of that process. There were plans to continue to investigate this more, but the direction shifted to focus on the interventions developed for provider and staff education, physician engagement, expansion of the daily care gap report to include high-risk patients, and keeping the measure on the physician compensation scorecard.

As part of the provider and staff education plan, additional education about high-risk patients was provided and reminders about the initiative were sent out each time one of the Emmi telephone campaigns began. Care coordinators were also educated to ensure high-risk patients on care plans received their vaccines if needed. The data from the AI Collaborative was shared with staff and providers on a regular basis to monitor the vaccination improvement rates. Additionally, that data was shared with physicians at the committee level to ensure this initiative remained a focus. Although it was the intention to redevelop the daily care gap report to include the high-risk patients, other initiatives became a priority.

Patient education included pneumococcal immunization signage in the exam rooms of all primary care clinics, which prompted patients to ask about the vaccine. In the past, signage has not been as effective, but there was an impact during the first AI Collaborative, so the decision was made to keep the signage in the rooms and add pneumococcal high-risk signage at the specialty clinics. Two signs from the California Department of Public Health were placed in the exam rooms. One focused on patients aged 65+ and the other focused on patients with high-risk conditions such as asthma, diabetes, etc. Education regarding the influenza vaccine was provided to all patients with access via the patient portal. The following message was sent to those patients:

> Did you know that each year, 1 in 5 Americans get the flu, and the flu is the cause of 111 million missed days of work? You can avoid becoming part of those statistics by getting your flu shot-one shot helps protect you and your family for the entire flu season.
>
> The seasonal influenza vaccine is safe and effective and remains the best protection against influenza viruses.
>
> The Centers for Disease Control and Prevention (CDC) recommend that everyone 6 months of age and older, with rare exception, receive a flu vaccination every year, so make an appointment for your entire family-the earlier, the better!

In addition to getting the flu shot, you can protect yourself and your family from infection during flu season by taking the following steps:

- Use good hand hygiene;
- Cough and sneeze into your arm, not your hand. If you use a tissue, dispose of it as soon as possible and wash your hands;
- If you get sick, stay home;
- Keep your hands away from your face;
- Keep common surface areas clean - for example, doorknobs, light switches, telephones and keyboards; and
- Eat healthy foods and stay physically active to keep your immune system strong.

Remember - Get Your Flu Shot. Not the Flu.

Please request your appointment online by clicking here, or click here to contact your provider's office if you have questions regarding this notice.

Sincerely,
Your Care Team
SwedishAmerican Medical Group

Outcomes and Results

Keeping the previous interventions in place alongside the addition of the Emmi telephone campaign allowed the organization to continue to improve their rates in all of the measures.

The implementation of the Emmi telephone campaign presented new challenges for SAMG. Since the organization did not have previous experience using an automated telephone outreach program, communication about the initiative to providers and clinic staff was a key to its success. Patient data was not always 100% accurate due to reporting periods and the timing of data updates, there were sometimes calls that were sent to a newly deceased patient. Communicating the potential of those calls happening to staff helped when a returned phone call was received from an upset family member. Each time a call campaign was set to be launched, a message was sent to all providers and staff that would remind them of the cohort of patients identified, hours the calls would be made, and how they could respond to patient questions.

SwedishAmerican conducted three outreach campaigns with Optum One and Emmi solutions. Each campaign targeted patients who were over 65 years old or who were between 19 and 64 years old with at least one high risk condition and in need of one or more pneumococcal vaccines.

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Calls were customized to identify the call as coming from SwedishAmerican, and to announce the name of the patient's PCP. Once connected, patients were told that a pneumonia vaccine was due, and given education about the importance of vaccination. The patient could then elect a soft transfer to schedule an appointment, make a note of provider contact information to schedule at a later date, or state that the vaccination had been received.

Population	# Patients Identified	# Engaged	% Engaged	Engaged Patients Vaccinated	% Engaged Patients Vaccinated
> 65 years old, requiring 1+ pneumococcal vaccines	7,964	4,423	55.5%	1,379	31.6%
19 – 64 yo, high risk, requiring 1+ pneumococcal vaccines	6,068	3,794	62.6%	170	4.5%

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The first campaign contacted 11,449 patients who were eligible to receive one or more vaccinations. Of those patients, 50% were engaged. At the end of the three campaigns, the engagement rate had increased to 55.5% for patients 65 years or older and 62.6% for patients 19-64 years old and high risk. The calls contributed to 31.6% of engaged patients 65 years or older receiving a vaccine. The results for high risk patients were not as significant as the organization had planned. Anecdotally, it was noted that this patient group was more likely to call the clinic and opt out of receiving future phone calls too.

The baseline rate for pneumococcal vaccines (any vaccination of patients aged 65+) was 79.9%; at the end of the Q5 reporting period, it was 83.9% (see Appendix). Although SAMG did not experience the same significant increase of results as they did during the first AI Collaborative, a 4% increase was still achieved. A significant improvement was made in the number of patients that received both PPSV and PCV, from 65% to 76.5%, which exceeded the collaborative goal of 60%.

A more focused approach on pneumococcal high-risk vaccine rates (any vaccination for high-risk patients aged 19-64) during the second AI Collaborative, led to an approximately 6% increase from the baseline rate of 28.9% to 34.6% by the end of Q5 (see Appendix). The addition of telephone interventions can be attributed to that increase.

Lastly, the rates for influenza vaccine had more of an increase than previously reported. An increase of 7% was reported from the baseline rate of 30.7% to 37.6% (see Appendix). One issue that the organization has continued to struggle with is the fact that this vaccine is available in many other venues, such as grocery stores and retail pharmacies. When patients receive the vaccine in one of these locations, it does not always get communicated to their primary care provider. Access to the Illinois State Vaccine registry could help capture some of those patients that do not self-report.

Though somewhat anecdotal, the impact of the organization's outpatient interventions combined with their inpatient interventions shows a decrease in hospital admissions with a primary diagnosis of pneumonia (see Appendix). The organization did not see a downward trend in other admissions, which is why they believe there is some correlation to increasing vaccine rates and decreasing pneumonia admissions.

Lessons Learned and Ongoing Activities

Several lessons were learned as part of this initiative. As easy as implementing a bi-directional interface sounded, it has not been an easy process and it is still not fully functional after a second attempt. It was originally thought that this would be a "quick" win to increase rates for vaccines received outside the organization. Communication of the plan of action (i.e., keeping previous interventions in place, Emmi, etc.) was a key factor in the rate of improvement for adult vaccines. Staff and providers were kept informed of the steps taken, when call campaigns were launched, and provided results at various committees.

Going forward, the organization plans to continue to focus on patients that need the pneumococcal vaccine and influenza vaccine by continuing to make adult immunizations a priority.

References

1. Office of Disease Prevention and Health Promotion (ODPHP). Healthy People 2020. www.healthypeople.gov.

Collaborative Goals

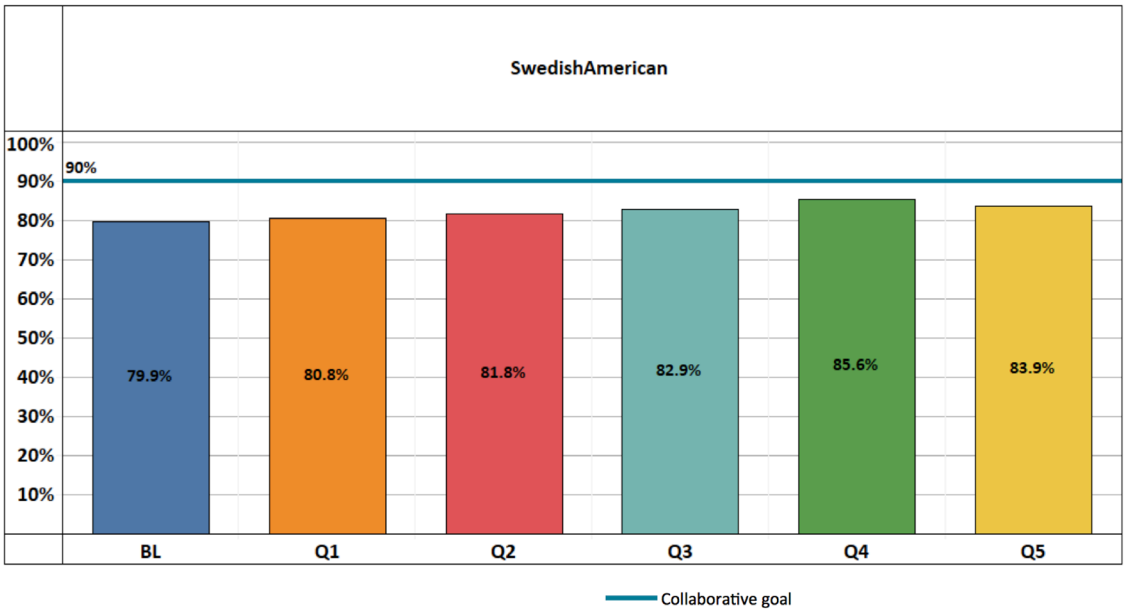
Measure	Healthy People 2020	Collaborative Goal
Measure 1 (65+) Any	90%	90%
Measure 1 (65+) Both PPSV and PCV*	90%	60%
Measure 2 (High-Risk)	60%	45%
Optional Measure 2a (At-Risk)**		
Measure 3 (Flu)	70%/90%***	45%

* 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.

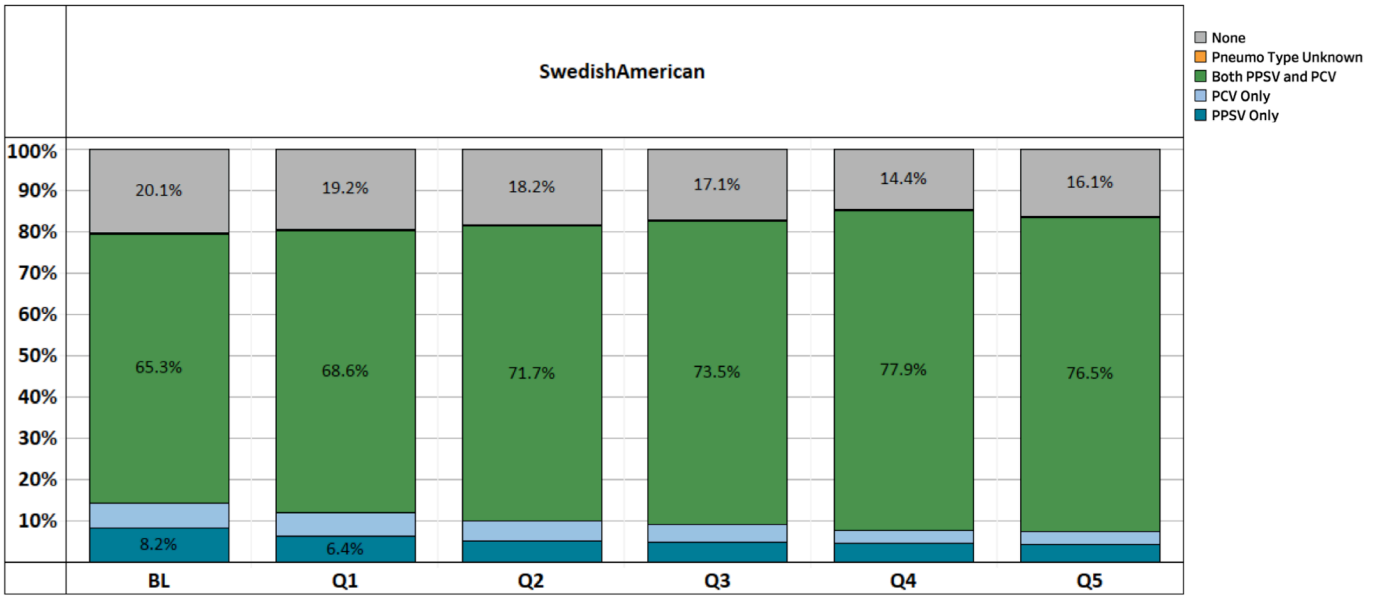
*** 70% for all patients, 90% for Medicare patients

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

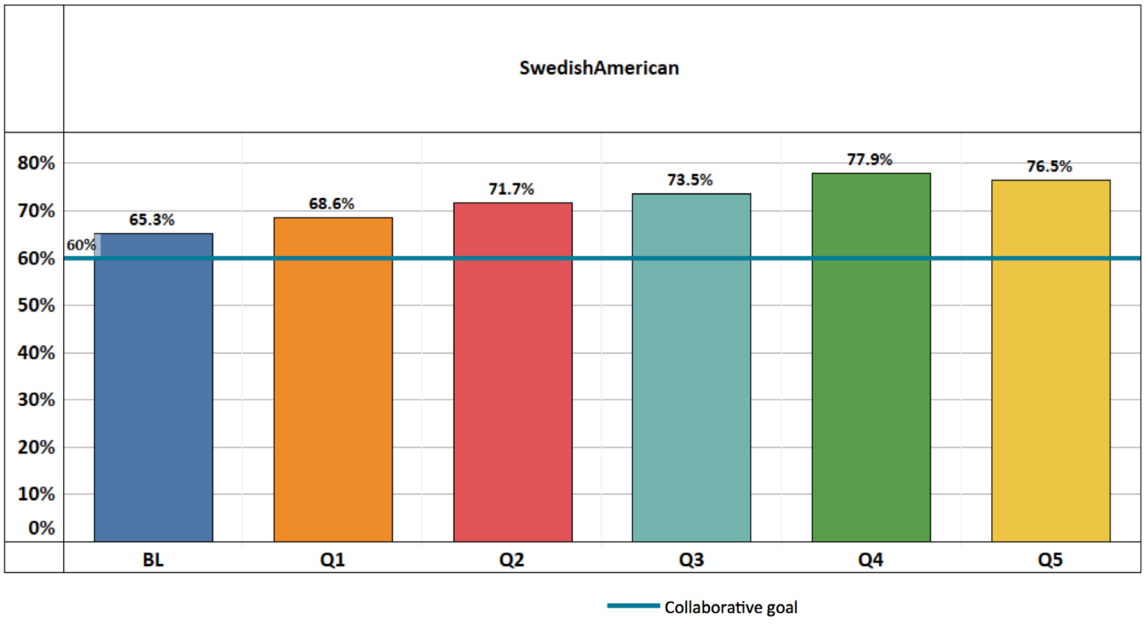


Appendix

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

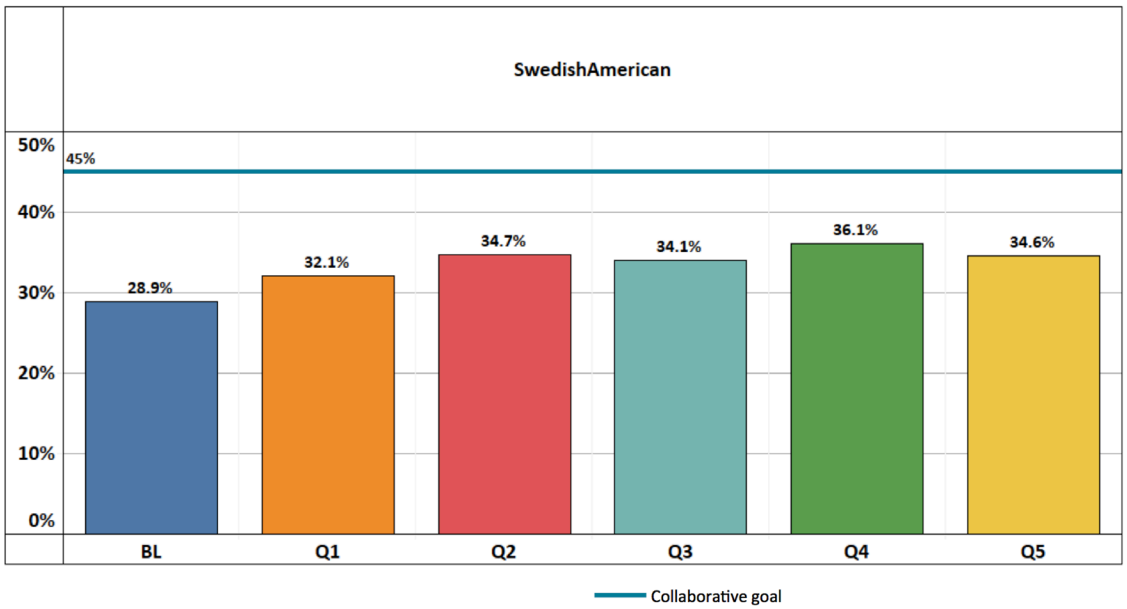


Measure 1 – Both PPSV and PCV Immunization for Adults Ages ≥ 65

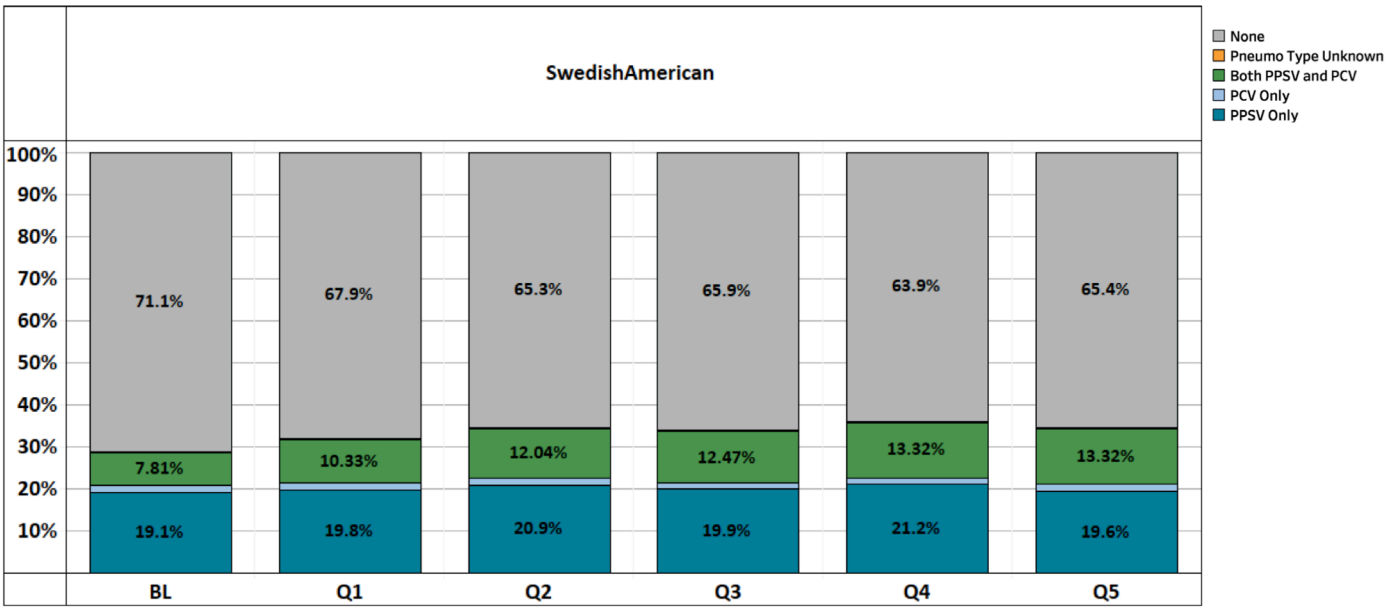


Appendix

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

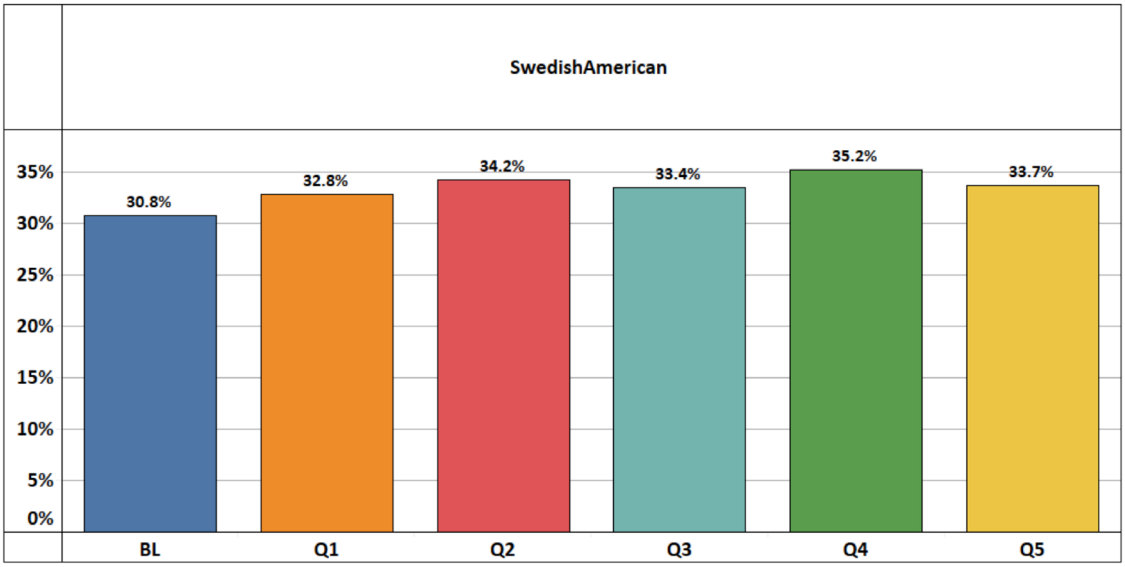


Measure 2 – Pneumococcal (Any) Immunization for Adults Ages 19–64 with High-Risk Conditions

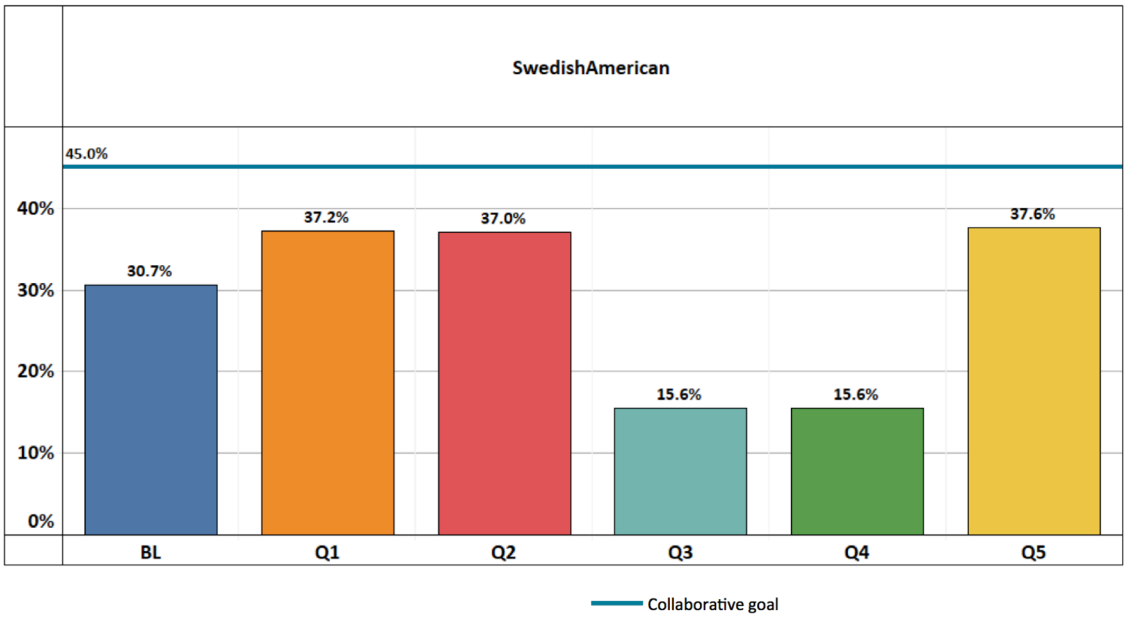


Appendix

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



Measure 3 – Influenza Immunization, Age ≥ 18



Appendix

Red text: area for customization

Patient Engagement Solution: Areas for Provider/Organization Customization and Support

Start

1 Site-specific kickoff
- ✓ Identify participating sites/ providers
- ✓ Review/configure patient-facing materials and outreach

2 Identify patients in Optum One
- ✓ Review and modify the list manually as needed
- ✓ Outreach conducted 3 times throughout Collaborative
- ✓ Patient list does not have to remain the same for outreach attempts

3 Pneumo Vaccine Education
- ✓ Materials/process reviewed by providers

4 Facilitate appointment with phone transfer
- ✓ Determine days/hours for outreach to occur
- ✓ Determine where incoming calls will be directed

5 Vaccination visit
- ✓ Optum will provide FAQs to office staff to assist in any support calls
- ✓ Optum/Emmi support teams fully enabled for this program

6 Measure & manage program performance
- ✓ Optum to provide additional analyses to this sub-set of the Collaborative

Appendix

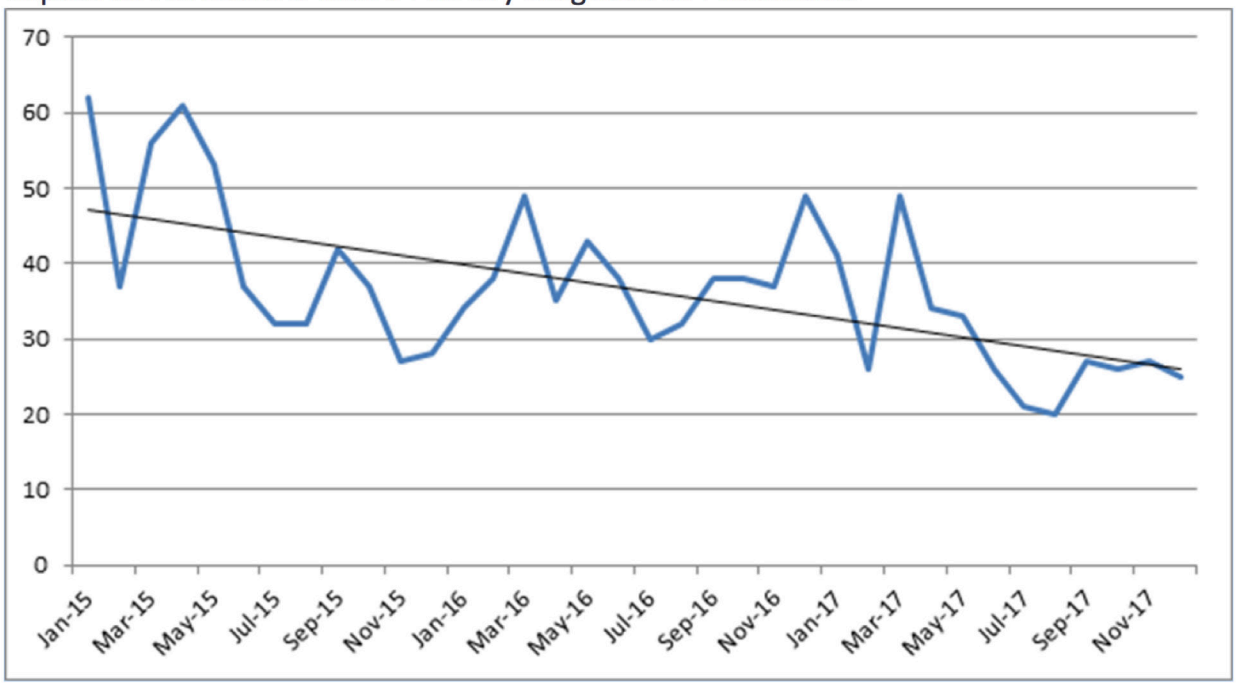
Daily Patient Care Gap
Provider Summary - 04/18/2016

Report Date: 04/18/2016
Report Time: 7:00 am

BELVIDERE SAMG - [1001]
SIMMONS, MARY - [20001]

	PAP	MAM	COLORECTAL CANCER	DIABETES CONTROL	LAST A1C DATE / LAST A1C VALUE	LAST BP DATE / LAST BP VALUE	PNEUMO CMPTD	DEPRESSION	SPIROMETRY	PEDS IMMS
9:00 am AGE: 21 07/19/1994 Female	✓	✓	✓	✓		03/02/2016 114/70	✓	✓	✓	✓
9:20 am AGE: 58 01/23/1958 Female	✓	!	!	✓		05/26/2015 125/88	✓	!	✓	✓
10:00 am AGE: 58 03/08/1958 Female	✓	✓	✓	✓		12/29/2015 117/74	✓	!	✓	✓
10:20 am AGE: 1 01/08/2015 Female	✓	✓	✓	✓		/	✓	✓	✓	!
11:00 am AGE: 1 04/15/2015 Female	✓	✓	✓	✓		/	✓	✓	✓	!
11:20 am AGE: 62 06/30/1953 Male	✓	✓	✓	✓		11/16/2015 123/83	✓	✓	✓	✓
11:40 am AGE: 2 08/30/2013 Male	✓	✓	✓	✓		12/04/2015 107/68	✓	✓	✓	!
1:00 pm AGE: 23 09/15/1992 Female	✓	✓	✓	✓		03/08/2016 101/64	✓	✓	✓	✓
1:20 pm AGE: 43 09/17/1972 Female	!	!	✓	✓		12/16/2015 114/71	✓	!	✓	✓
1:40 pm AGE: 55 06/24/1960 Female	✓	!	!	✓		09/15/2015 125/82	✓	!	✓	✓

Impact on Admissions with a Primary Diagnosis of Pneumonia



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