

Keeping Seniors Healthy: Improving Senior Immunizations

Arthur Babakhanians MD, Alison Kole DO, Sirvard Khanoyan MD
Glendale Adventist Medical Center

Background

In the US, an average of 226,000 people are hospitalized annually due to Influenza, and between 3,000 to 49,000 of these die as a result of complications. The majority of these victims are adults ≥ 65 years old.

Hospitalization due to pneumococcal pneumonia increases significantly in the elderly. In 2010, the incidence of invasive pneumococcal disease in individuals ≥ 65 years of age was 37 cases per 100,000, with 5 deaths per every 100,000.

The majority of senior deaths from vaccine-preventable diseases is secondary to influenza and pneumococcal disease, respectively. Vaccination remains the most effective method in prevention of senior complications and hospitalization. Despite the fact that vaccines are a cost-effective way to prevent morbidity and mortality from these diseases, they are underutilized in most communities.

Methods

- Obtain immunization records of senior patients through EMR and calculate immunization rates prior to intervention.
- Plan and implement interventions:
 - Update the Care Manager Tool
 - Train staff on the use of EMR
 - Educate staff and Providers on senior vaccination guidelines, with specific emphasis on the Prevnar vaccine update
 - Lecture series given to staff about cultural barriers to vaccination and ways to approach patients
 - Handouts and posters with vaccine info were made and distributed at FMC (English, Spanish, and Armenian)
- Re-analyzed data after interventions to obtain new immunization rates.

Objective

To improve immunization rates by 25%, or achieve an immunization rate of greater than 75% for this population

Results

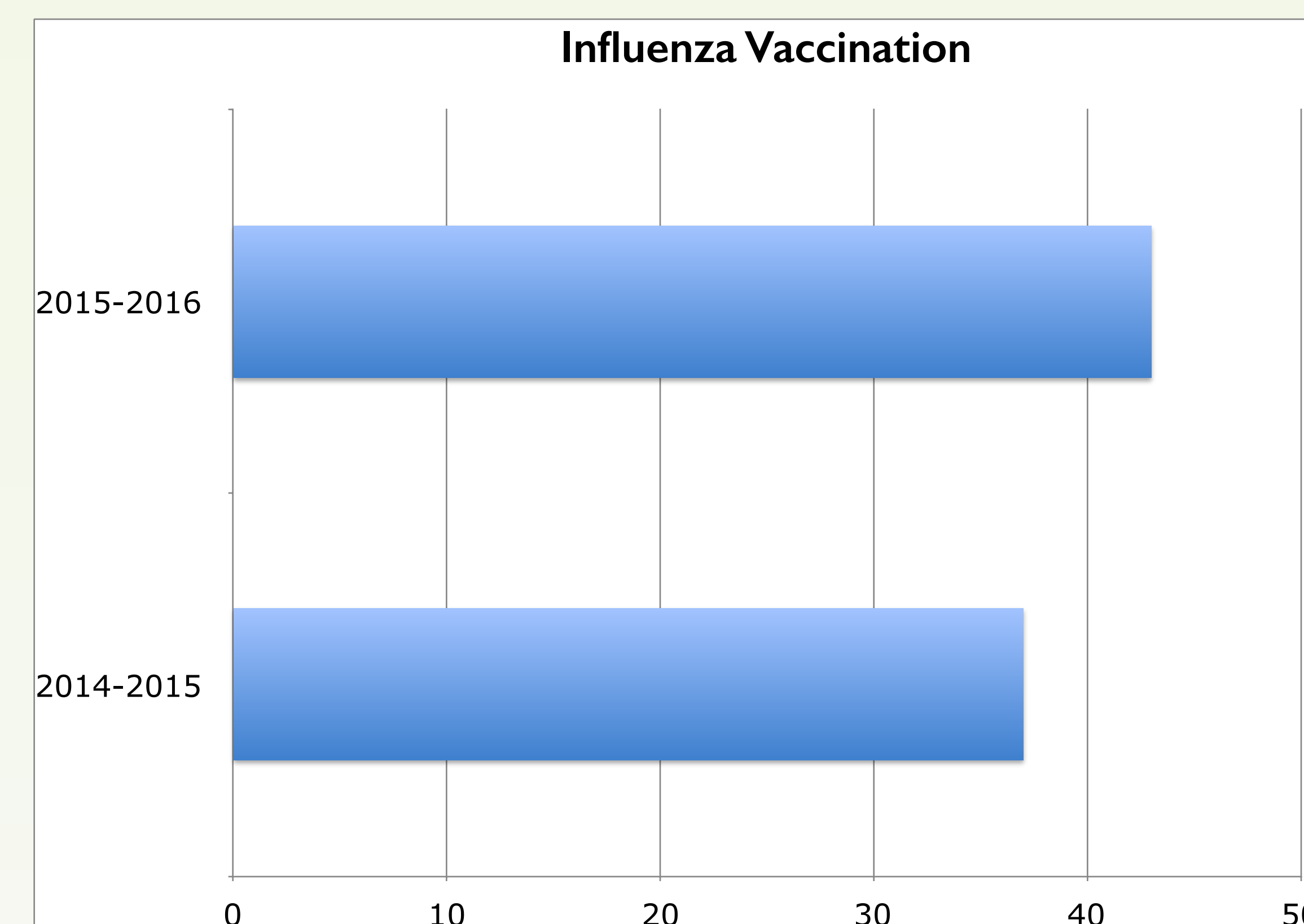
The total number of eligible senior participants was 626 patients.

INFLUENZA

2014-2015 influenza season, 231 patients were immunized against the flu (Immunization rate 37%)

2015-2016 influenza season, 270 patients were immunized against the flu (Immunization rate 43%).

There was a 6% improvement with interventions.



Seniors	2013-2014 Flu Season (Sep 2013-Mar 2014)	2014-2015 Flu Season (Sep 2014-Mar 2015)	2015-2016 Flu Season (Sep 2015-Mar 2016)
Influenza Vaccine Rate	38 %	37 %	43 %
Total patients immunized	235/620	229/619	270/626

Results

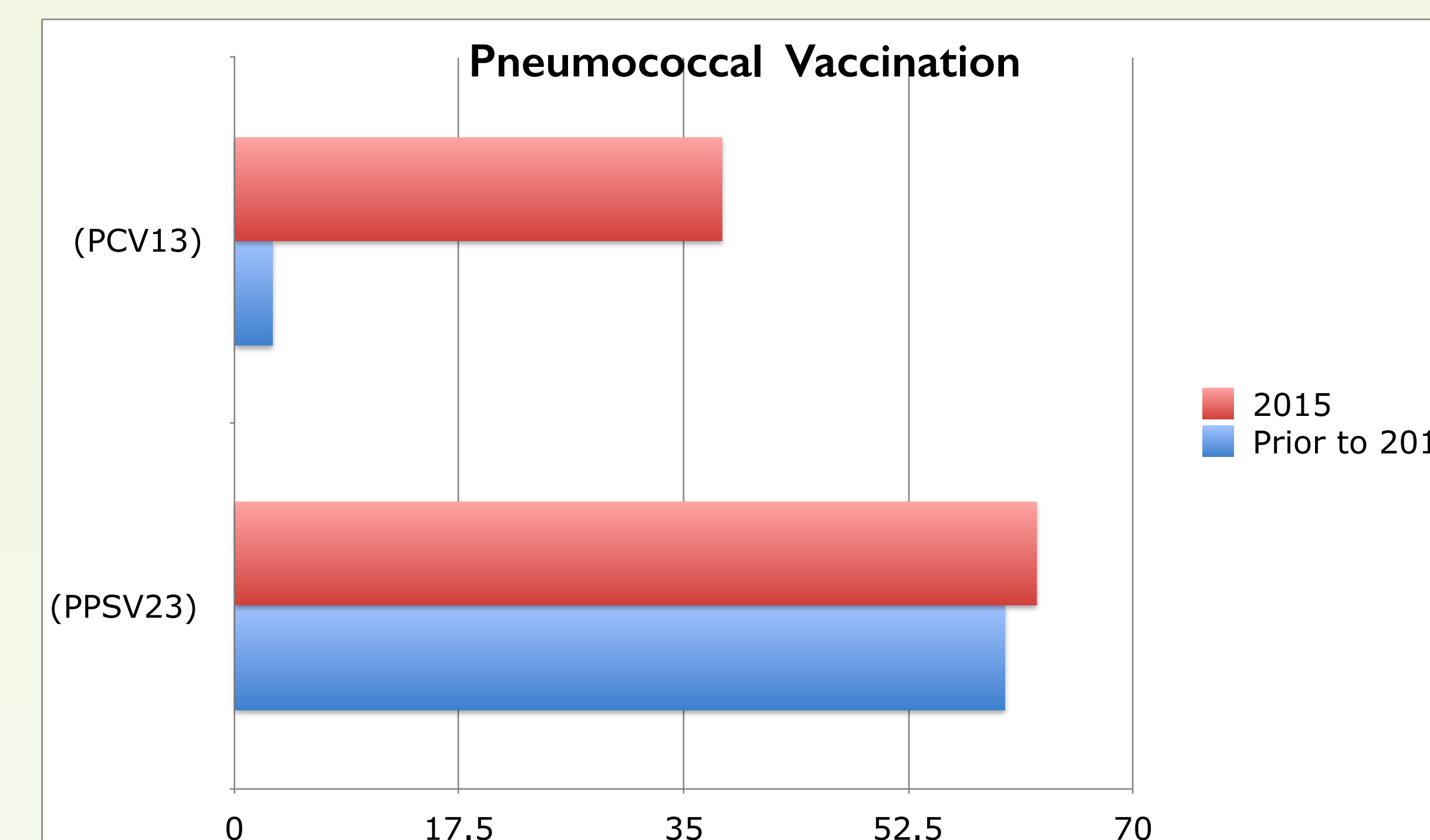
PNEUMOCOCCAL

Prior to 2015, 375 patients had received Pneumovax after age 65 (60% of patients)

Prior to 2015, 19 patients had been immunized with Prevnar after age 65 (3% of patients)

After the interventions, 15 additional senior patients received Pneumovax (improved the rate by 2.4%)

After interventions, 241 patients received Prevnar, (improved the rate by 35%.)



Seniors	2013-2014 (Apr 2013-Mar 2014)	2014-2015 (Apr 2014-Mar 2015)	2015-2016 (Apr 2015-Mar 2016)
PPSV23 Pneumococcal Vaccine Rate (%)	13 %	60 %	62.4 %
PPSV23 Total patients immunized	80/620	375/619	390/626
PCV13 Total patients immunized			241/626 (35% increase)

Take Home Points

Be familiar with cultural barriers and how to address patient myths and fears

Be proactive

Review Immunization records at each visit

Know immunization guidelines

Implement a system to identify and notify patients missing vaccinations

Take advantage of EMR

When records cannot be obtained, and history is unsure, vaccinate anyways



Glendale Adventist Medical Center



Funding

Support for the Senior Immunization Grant Award was made possible by AAFP Foundation through a grant from Pfizer Inc.



2016-2016 Senior Immunization Grant Awards
RESULTS & FINDINGS: FINAL REPORT Form

Instructions

- Provide the information and data requested including Appendices 1-3.
- Your Final Report is due by May 5, 2016.
- Please include any attachments, graphs, pictures (jpg, if possible) or other items that capture the essence of the outcomes realized by your project.

Name of Family Medicine Residency Program: Glendale Adventist Medical Center Family Medicine Program

Contact Information

1. Name, Title, Email of person completing the report.
 - a. *Alison Kole, DO. koleae@ah.org. Resident Physician*
 - b. *Arthur Babakanians, MD. BabakhA4@ah.org. Resident Physician*
2. Project Contact information if different from above.

Title of Project: *Keeping Seniors Healthy: Improving Senior Immunizations*

Statement of Goal(s) *The objective was to improve immunization rates against Influenza and Streptococcus pneumoniae in patients ≥65 years old at FMC. The goal was to improve immunization rates by 25%, or achieve an immunization rate of greater than 75% for this population.*

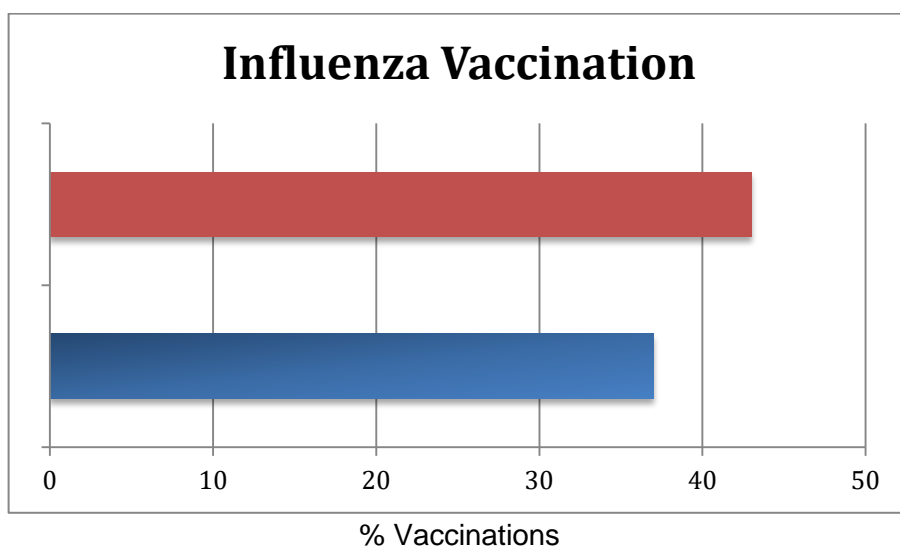
Impact on Target Population

1. PATIENT DATA – **Complete information in Appendix 1.**
2. KEY OUTCOMES (Please group by bullet points)

FLU

- *The total number of eligible senior participants is 626 patients.*
- *In the 2014-2015 influenza season, 231 patients were immunized against the flu, and the reflecting immunization rate was 37%.*
- *In the 2015-2016 season, 270 patients were immunized against the flu, resulting in a 43% immunization rate.*

Seniors (age 65 and older)	2013-2014 Flu Season (Sep 2013-Mar 2014)	2014-2015 Flu Season (Sep 2014-Mar 2015)	2015-2016 Flu Season (Sep 2015-Mar 2016)
Influenza Vaccine Rate (%)	38 %	37 %	43 %
Numerator/Denominator (absolute numbers used to calculate rate)	235/620	229/619	270/626



- Summary of methodology used to obtain the data and information

The first step in this study was obtaining immunization records of all active senior patients, hereby defined as greater or equal to 65 years old, through electronic medical records from FMC's database. These patients were analyzed to obtain immunization rates prior to intervention.

At the end of the 2016 flu season, patient immunization records, obtained from EMR, were reviewed again and the data was re-analyzed. Active senior patients were compared to those in the previous year. Exclusions were made from the analysis and results if the patients died at any point during the study.

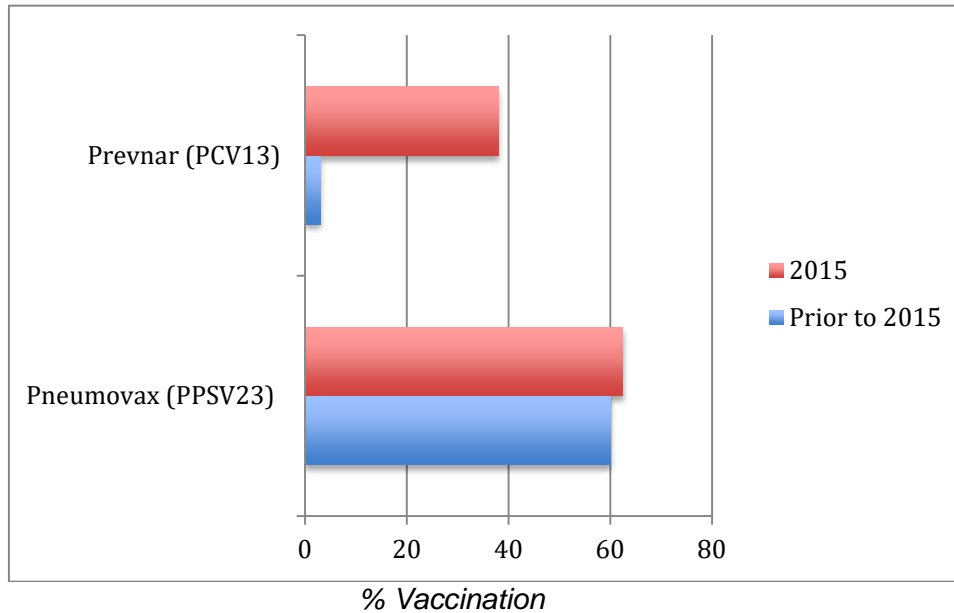
The total number of eligible patients and the number of influenza vaccines given in the 2014-2015 and 2015-2016 seasons were recorded. To find the vaccination rate, the total vaccinated patients from each category was divided by the total number of active senior patients, and these rates were compared to determine and quantify improvement.

PNEUMONIA

- Prior to 2015, 375 patients in FMC had received Pneumovax after age 65, which is 60% of patients.
- Prior to 2015, 19 patients had been immunized with Prevnar after age 65, which is 3%.
- After the interventions took place, 15 additional senior patients in the FMC office received Pneumovax which improved the rate by 2.4%.
- After training 241 patients received Prevnar, improving the rate by 35%.

Seniors (age 65 and older)	2013-2014 (Apr 2013-Mar 2014)	2014-2015 (Apr 2014-Mar 2015)	2015-2016 (Apr 2015-Mar 2016)
PPSV23 Pneumococcal Vaccine Rate (%)	13 %	60 %	62.4 %
PPSV23 Numerator/Denominator (numbers used to calculate rate)	80/620	375/619	390/626
*Number of seniors who received PCV13 during specific time period			241/626 (35% increase)

Pneumococcal Vaccination



- Summary of methodology used to obtain the date and information

The first step in this study was obtaining immunization records of all active senior patients, hereby defined as greater or equal to 65 years old, through electronic medical records from FMC's database. These patients were analyzed to obtain immunization rates prior to intervention.

At the end of the 2016 flu season, patient immunization records, obtained from EMR, were reviewed again and the data was re-analyzed. Active senior patients were compared to those in the previous year. Exclusions were made from the analysis and results if the patients died at any point during the study.

The total number of eligible patients and the number of patients immunized with Pneumovax and Pnevmar, specifically, prior to 2015 as well as during 2015-2016 was also recorded. To find the vaccination rate, the total vaccinated patients from each category was divided by the total number of active senior patients, and these rates were compared to determine and quantify improvement.

3. KEY PROGRAM COMPONENTS (Please group by bullet points)

- *The EMR training provided to the entire staff in team meetings at FMC, educating them about vaccinations and guidelines, with specific emphasis made on the Pnevmar vaccine update for seniors.*
- *A series lectures, was given to physicians and staff by Resident Physicians Alison Kole and Arthur Babakanians during the noon conference about immunization guidelines and barriers to vaccination. During these lectures, all guidelines for vaccines were reviewed, along with alternative ways to approach patients of different cultures and backgrounds who have preconceived notions and concerns about being vaccinated.*
- *Handouts and posters with information about Influenza and Pneumonia vaccines were made and distributed at FMC. The posters were placed in patient rooms, and handouts were given to patients by nurses or residents as they enter their rooms, providing them ample time to read the information prior to their appointments. In order to cater to the different demographics of the patient population, the handouts were made in English, Spanish, and Armenian.*

4. THINGS THAT WORKED BEST

The most effective intervention was peer-led cultural competency dialogue, via open discussions and meetings, aimed to educate providers and staff. Providing vaccine-specific materials to the patients in three languages (English, Spanish, and Armenian) played a significant role in increasing the overall awareness in different cultural groups.

5. LESSONS LEARNED

A number of barriers were encountered during this intervention. The primary impediment to Influenza vaccination was the lack of patient visitation to FMC specifically during the available Influenza vaccination season, resulting in an absent opportunity to introduce proper treatment. Future plans to overcome this barrier could be to schedule all annual exams for seniors early in the flu season. Since only 13% of the entire patient population consists of senior citizens, this should be feasibly and successfully implemented. In addition, patient remarks commonly include that they 'never get the flu' or they 'do not believe in the flu shot'. These patients were educated with scientific and medically-approved facts regarding the dangers associated with Influenza. Results of these educational outreaches remained variably inconsistent, however—helpful in some but not in others. This will remain a barrier to vaccination.

Guidelines for vaccination against Pneumococcal infections in seniors changed in 2014 to include one-time vaccination of both Prevnar and Pneumovax. For these vaccines, Prevnar should be given first, followed by Pneumovax one year later. Although they can be administered in reverse order, it is most effective in the recommended method. Since Prevnar is a more recent recommendation, many of our existing senior patients had previously received Pneumovax. Therefore, they required only an administration of Prevnar vaccine to be completely immunized against streptococcus pneumoniae. However, the vaccines must be given one year apart, so since this study was only one year long, we were only able to use one of these vaccines in this time period. This explains why the Prevnar vaccination rate improved by 35%, whereas Pneumovax improved by only 2.4%. One of the barriers to giving Prevnar vaccine occurred in nursing home patients. Most of these patients are seen by resident physicians at their respective nursing home, and not at the FMC. Nursing homes do not receive full reimbursement for providing Prevnar vaccines to most of these patients and, consequently, rarely administer the vaccine. This accounts for approximately 5% of our senior patient population.

When reviewing patient charts for vaccination history, a common finding was that new patients often did not know or could not recall their own vaccine history. Records from previous offices were requested, but, often, they were never received on time. On initial exams, vaccination was often deferred until records were reviewed. However, it was not promptly readdressed at subsequent visits when records were not obtained. The CDC recommendation is to vaccinate anyways, since the risks associated with an extra vaccine is lower than the risk of never receiving vaccination. This was shared with and taught to staff, but it still remains an area that needs continual improvement in order to increase the overall immunization rates. Other common complications encountered include patient claims of prior vaccination at local pharmacies, yet they do not recall which vaccines were administered or even which pharmacy was visited. Most pharmacies do not keep vaccination records on patients, which makes discovering and understanding patient immunization histories difficult. Since they are under the impression that they already have been vaccinated, patients then refuse and decline further vaccination, even with thorough staff explanation and encouragement. Given the complexity and lack of information provided by pharmacies, it is difficult to overcome this barrier.

The EMR can be a useful tool to help remind providers of recommended immunizations and patient immunization status. The EMR used at FMC currently helps remind providers about Influenza and Pneumovax vaccines. Currently, Prevnar vaccine is not listed as a required vaccine for seniors in the EMR, so it does not keep track of those who were immunized, nor does it prompt and alert providers

of those patients who have not received it. This feature can only be changed by the EMR parent company, and there is already a planned future system update in place to erase this issue in the near future. In addition, there are many updates that can be made to the EMR that could result in helping prompt providers to discuss vaccinations. This could, ultimately, help identify seniors eligible for vaccination faster, resulting in an increase in the rate of vaccination. For the future, ongoing patient and provider education and training will remain the single-most effective method to increase immunization in elderly.

6. **PERSONAL STORY.** Please provide a personal account that shows a difference was made as the result of the work you and your team have done on this project. It can be a story that reflects on a resident or on someone from the patient population you are serving.

During an office visit for a senior physical exam, patient asking for an Armenian speaking resident to explain the Armenian translated handout about the flu vaccination. Upon reviewing her charts, this patient has always declined vaccination and was uninterested in the prior years. One of the Armenian speaking residents attended to her, and explained the benefits of Influenza vaccination, and patient agreed to receive both Influence and Pevnar vaccination. This experience wouldn't have been plausible without the multi-language handouts.

Impact on Residents and Team Members

1. Provide a general description of those who worked on the quality-improvement and/or community-based project

The presenters are resident physicians that work at FMC. Their role was to give presentations to other residents about senior immunization guidelines and conduct meetings to educate nursing staff about vaccine guideline updates. They also completed chart reviews, patient education, and clinical analysis of statistical results. 2 residents worked on the project along with an attending physician who oversaw the project.

2. Address the current and future impacts of this project on the residents &/or members of the team.

This project will help others in the future to continue to improve vaccination rates at the FMC office. The education to the providers can be reinforced annually. The updates to the EMR dashboard will make it easier to see who is missing vaccines and the posters and handouts can continue to be used annually.

Education and Outreach

1. Summary of accomplishments.
- *Made changes to current immunization process at FMR. Did EMR training provided to the entire staff in, gave a series lectures to physicians and staff about immunization guidelines and barriers to vaccination. Made handouts and posters with information about Influenza and Pneumonia vaccines were made and distributed at FMC. Posters were placed in patient rooms, and handouts were given to patients by nurses or residents as they enter their rooms, providing them ample time to read the information prior to their appointments. In order to cater to the different demographics of the patient population, the handouts were made in English, Spanish, and Armenian.*
 - *We were able to slightly improve the immunization rate against influenza and significantly improve the rate again pneumonia vaccination, specifically Pevnar.*

2. List of clinical & patient education and outreach materials produced or used in this project.
 - *Immunization posters (flu and pneumococcal), Immunization handouts flu and pneumococcal), vaccination buttons worn on provider white coats. Vaccine guideline posters hung in provider work rooms, handouts given to residents and staff about vaccination guidelines in seniors.*

3. List of presentations with the date(s) and brief description of the audience.
 - *September 2015: Applicable training was provided to the entire staff in team meetings at FMC, educating them about vaccinations and guidelines, with specific emphasis made on the Plevnar vaccine update for seniors.*
 - *September/October 2015: Series lectures, was given to resident physicians and attending by Alison Kole and Arthur Babakanians during the noon conference about immunization guidelines and barriers to vaccination. During these lectures, all guidelines for vaccines were reviewed, along with alternative ways to approach patients of different cultures and backgrounds who have preconceived notions and concerns about being vaccinated.*

4. Include the materials developed and implemented as an attachment (in a jpg or pdf format) or provide the web address where they can be accessed. *(attached)*

Sustainability Discuss how the FMRP and residents will carry best practices and gains into the future.

One of the main gains for the residents from this project would be the lectures and education they received about senior vaccinations, especially an update about the guidelines of pneumococcal vaccinations. Also office staffs, including MAs and nurses, are also well-trained and informed about different vaccinations and when to offer them, which will be very helpful in the following seasons.






There are also plans ahead for the future regarding fixing the EMR to make it easier to record vaccination, analyzed vaccination status, and user friendlier EMR.

Case Study Information– Complete contact information in Appendix 3.

Project Impact Statement for Funders What would you like those who supported this project to know about this project and the benefit you, your patients, and/or your Family Medicine residency program derived from receiving this grant?


This grant allowed our office the review our current vaccine practices in senior patients and work to improve these practices. With this grant, we were able to improve our rate of vaccination with Plevnar by 35% in just one year, which will help to reduce the incidence morbidity and mortality of pneumonia in our senior patients. We will continue to use these practices to improve the rates in years to come


Impact of Interventions – Complete information in Appendix 2.


IMMUNIZATION INTERVENTIONS	HIGH Impact	SOME Impact	LOW Impact	NO Impact	NEGATIVE Impact	Did NOT Use
Clinic Based Education 	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Community-Wide Education 	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Community &/or Local Government Partnerships	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Home Visit	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mobile Clinic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
Immunization Champion System	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IIS at Population Level 	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IIS at point of Clinical Care 	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clinic EMR linked with State Immunization Registry	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patient Incentive Rewards 	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patient Reminder and Recall Systems	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patient-Held Paper Immunization Records	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Provider Assessment & Feedback	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Provider Education	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Provider Reminders	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Provider Friendly Competitions	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Standing Orders	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reduced Cost of Vaccine \$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
Transportation reimbursement or vouchers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
List Other Interventions Below (not listed or to be more specific about your intervention). Add rows as needed						
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	


Interventions and Definitions below were extracted from the Community Guide

<http://www.thecommunityguide.org/vaccines/index.html>

 **Clinic Based Education** approaches may include the use of brochures, videotapes, posters, vaccine information statements (VIS), electronic bulletin boards, and face-to-face sessions designed to inform and motivate patients to obtain recommended vaccinations in the clinic. These activities are usually delivered in advance of and in addition to the client-provider interaction

 **Community-wide Education** information is disseminated with the goal of informing, encouraging, and motivating individuals to seek recommended vaccinations. Content generally focuses on vaccination risks and benefits, as well as where and when vaccinations can be obtained.

 **Immunization information systems (IIS)** are confidential, computerized, population-based systems that collect and consolidate vaccination data from vaccination providers that can be used in designing and sustaining effective immunization strategies.

 **Patient Incentive Rewards** may be monetary or non-monetary, and they may be given to patients for keeping an appointment, receiving a vaccination, returning for a vaccination series, or producing documentation of vaccination status. Rewards are typically small.

\$ Reduced Cost of Vaccine examples include paying for vaccination or administration or reducing co-payments at the point-of-service.

Glendale Adventist Family Medicine Residency**CULTURAL COMPETENCY KEY TO BOOSTING SENIOR IMMUNIZATION RATES**

Dr. Arthur Babakhanians knew that all individuals aged 65 years and over should be immunized for influenza and pneumonia—vaccinations were, after all, a cornerstone of prevention efforts among the elderly. But, “I didn’t know a lot of details regarding recommended administration practices, especially related to the pneumonia vaccine, since the guidelines had recently changed.”

“I didn’t realize how many patients develop complications from pneumonia and influenza,” added Dr. Alison Kole, “and how they can be a major cause of illness, suffering and even death. Seeing the numbers really brought home how critically important these immunizations are to our senior patients’ health.” Indeed, the Centers for Disease Control and Prevention (CDC) estimates that between 80 and 90 percent of seasonal flu-related deaths have occurred in people 65 years and older, and between 50 and 70 percent of seasonal flu-related hospitalizations have happened to that age group.

All this would change over the next year as these two physicians, both second-year residents in the Glendale Adventist Family Medicine Residency Program, teamed up to implement a 2015 Senior Immunization Grant from the American Academy of Family

Physicians (AAFP) Foundation. The AAFP Foundation awards support the efforts of Family Medicine residency programs to implement projects aimed at increasing influenza and pneumococcal vaccination rates in patients age 65 and older. Glendale Adventist’s grant application had been submitted by a Family Medicine resident who had since graduated. Knowing their interest in research, she handed the project over to Drs. Babakhanians and Kole before leaving Glendale.

Glendale Adventist Family Medicine Center (FMC) is located in a designated medically underserved area in Los Angeles County, CA with a large immigrant population. Nearly half were born outside the U.S.; 46.7 percent speak a language such as Armenian or Russian and 20 percent speak Spanish. Language and socioeconomic barriers have resulted, among other things, in poor health literacy and a widespread distrust of medical professionals.

Achieving the project’s goal of a 25 percent increase in influenza and pneumococcal vaccination rates by June 2016 would require broad support from all provider staff, and education was seen as key. Drs. Babakhanians and Kole utilized noon conference to present a series of lectures updating all 24 residents as well as faculty on current CDC vaccination

guidelines for senior patients, with specific emphasis placed on the more recently-available Prevnar pneumococcal vaccine. Team meetings with similar content were held with all medical assistants and nursing staff.

Given the diversity of the target population and its skepticism towards preventive medicine, the presentations also included peer-driven discussions of the barriers to vaccination. “One of our very experienced social workers participated in these sessions and helped us understand the myths about vaccinations most prevalent in different cultures,” said Dr. Babakhanians, “and we are all now much better prepared with the facts and comfortable with handling these concerns and questions when they arise.”

Drs. Babakhanians and Kole also took the lead in creating new vaccine-specific handouts (now available in English, Armenian and Spanish) providing facts about the influenza and pneumococcal vaccinations and addressing common myths, risks and benefits. Kept readily available in patient waiting rooms, the flyers were also handed to patients by nurses or resident physicians as they entered the exam rooms. New eye-catching immunization posters placed in patient rooms helped spark interest and conversation as well. “We turned to our Patient Advisory Committee (PAC) members for guidance in the development of the new flyers and posters to make sure they captured each audience and utilized language appropriately,” adds Dr. Kole. “For example, when they saw we were translating the name of the disease verbatim, they let us know that

nobody uses the term “pneumonia” in Spanish, but everyone knows what ‘la grippe’ means.”

Improvements to the clinic’s preventive Care Manager Tool within the Electronic Health Record (EHR) software also helped support project goals, and all provider staff received training on the use of both new and existing EHR functions. “A pop-up tool in the EHR was especially helpful,” said Dr. Kole. “As the patient is scheduled for their next appointment, we can enter a reminder alert to follow-up on immunizations when they come in.” A planned EHR system update added Prevnar (there had previously been no place to record it) along with Pneumovax as a required vaccine for seniors. “So, from here on out, all relevant influenza and pneumonia vaccinations can be entered and reminders triggered as needed.”

One strategy for bringing seniors in for vaccinations simply did not work. “Although one of the nurses was assigned to make reminder calls to patients needing immunizations—and there were a lot of calls—they were of very limited success because so many people did not pick up their phones,” admits Dr. Babakhanians.

They did, however, note two potential adjustments that could prove beneficial. “Every year, we send letters out to our patients who are due for annual physicals. Although we haven’t done this in the past, an influenza vaccine flyer could be included with this reminder, and perhaps we could improve our rates even more,” said Dr. Kole. She also identified the lack of patient visits to FMC

during the peak flu vaccination period as a missed opportunity. “We’re pretty good at vaccinating patients who come for physicals during flu season, but it can be difficult to reach patients who come in at other times of the year. Since only 13 percent of the entire patient population consists of senior citizens, it should be feasible to align the scheduling of annual physicals with the flu season.”

In Dr. Babakhanians’ view, the availability of language and culturally-appropriate flyers has had the greatest impact on his and other residents’ ability to converse persuasively with their patients. “One of our Armenian senior patients came in for a physical exam and at her request, was seen by an Armenian-speaking resident. He could see from her chart that she had consistently declined vaccinations in previous years. Using the flyer as a guide, the resident took the time to explain the benefits of influenza vaccination and she ultimately agreed to receive both the influenza and Prevnar vaccinations—an outcome that wouldn’t have been possible without the language-appropriate handouts,” asserted Dr. Babakhanians. And even though there will always be some patients that will refuse vaccination no matter what, “If you communicate with them in their language, they are much more likely to trust you.”

For Dr. Kole, it’s been increased awareness of how critical simply having the discussion with patients can be. “In the past I would tell a patient, ‘you need this shot, so just stop by at the vaccination clinic on your way out,’ and just assume the patient would do it. But later, I’d see from the chart that they’d just gone on home. So now I know how important it is to

spend some time talking to them about it, answering their questions so they will see how it will benefit them and will follow through.”

Dr. Babakhanians wholeheartedly agrees. “Just five minutes can make all the difference to their future health.”