

# Increasing Influenza and Pneumococcal Vaccination Rates amongst Seniors in a San Diego Border Community

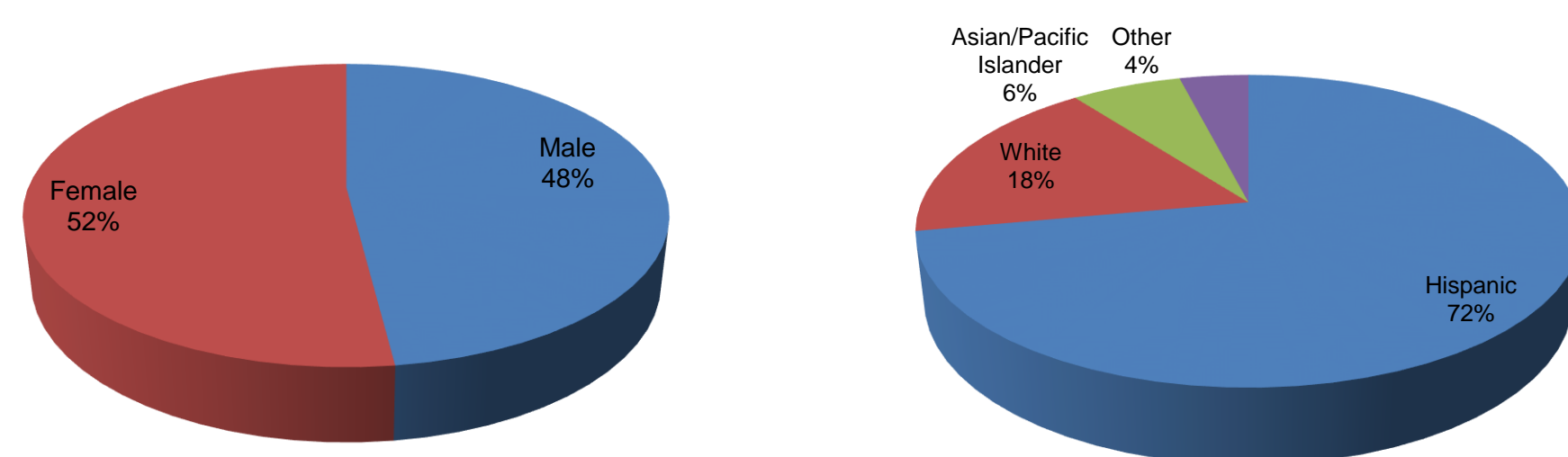


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Scripps Family Medicine Residency, Chula Vista Medical Plaza

## BACKGROUND

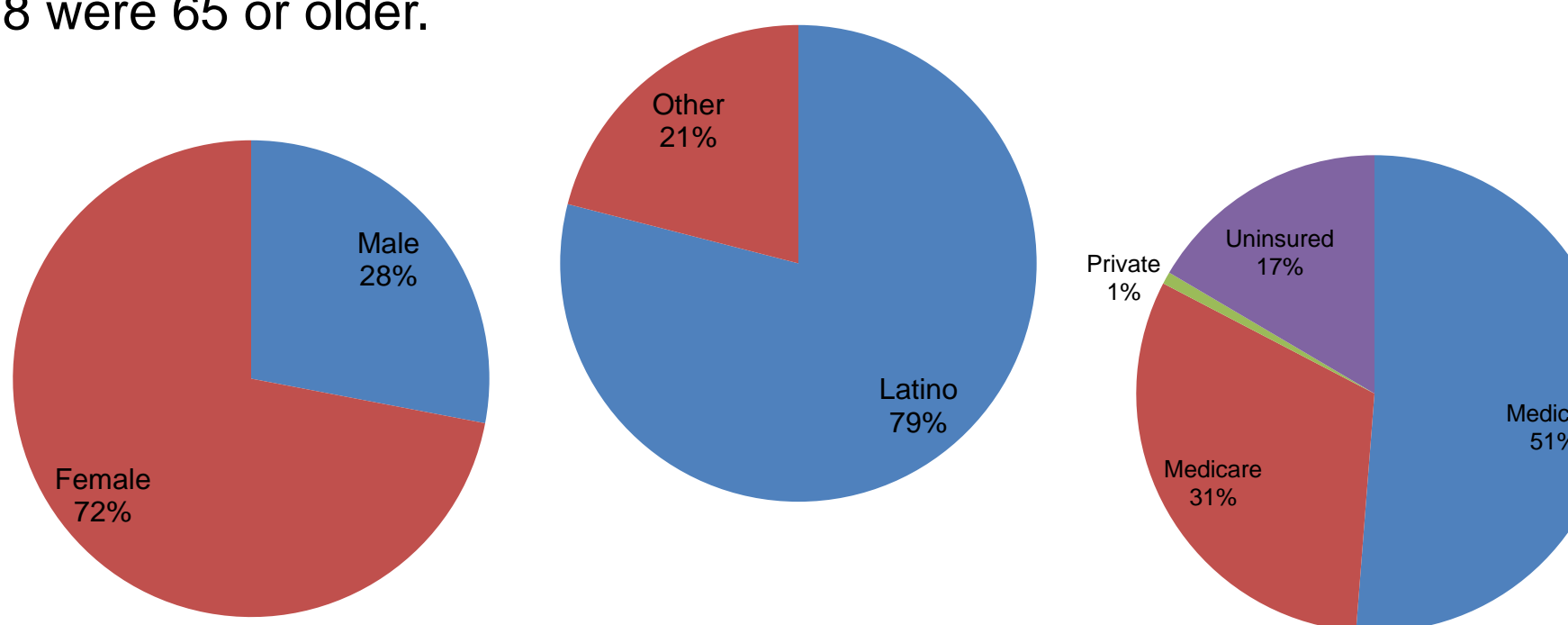
### South Region San Diego

The south region of San Diego includes Coronado, National City, Sweetwater, Chula Vista, and the South Bay. In 2012, the total population of this region was 116,603 and 14,792 people of this population were over age 65. Of the population >65 years old, 48% are male and 52% are female; 72% are Hispanic, 17.5% are White, and 6.4% are Asian/Pacific Islander (over half are Filipino). Among the population over 65 years of age, there are a significant number of persons living in poverty. 11.24% are below 100% of the federal poverty line (FPL) and 38.4% are below 200% of the FPL.



### Chula Vista Family Medicine Clinic

Chula Vista Family Medicine Clinic is our outpatient clinic which has a similar demographic to the south region of San Diego. From 2013-2014, our residency program served a total of 6,036 patients. Of those patients, 718 were 65 or older.



### Past Vaccine Rates

Vaccines	2011-2012	2012-2013	2013-2014
Influenza	35%	23%	29%
Pneumococcal	64%	71%	61%

## OBJECTIVES/GOALS

### Influenza

- Average influenza immunization rates over the past three years was 30%
- Goal of 25% improvement to get to target rate of 55% for the 2014-2015 season
- Expect to expand to a total of 800 patients
- Estimate that 440 senior patients or 55% would receive the influenza vaccine at CVMP during the 2014-2015 flu season
- Estimate that an additional 250 persons would receive the influenza vaccine as part of community outreach activities
- Additional 50 patients would receive the vaccine in the hospital setting

### Pneumococcal

- Goal to increase pneumococcal vaccine rates from 61% to 75% among patients >65 years of age during this flu season
- Estimate that an additional 162 seniors (20% of current senior patients) would need to be vaccinated to meet this goal
- Current rates based on the report for the 718 senior patients seen from March 2013-March 2014
- 438 or 61% had the pneumococcal vaccines given between March 2004-March 2014 and were considered up to date
- For the estimated 800 patients >65 years, 600 persons need the pneumococcal vaccine (162 more or 20% of the total)

## METHODS

### Key Program Components

- Implemented i2i registry tracking into everyday workflow for all residents to track the immunization status of their daily patient panel
- Established relationships with the Norman Park Senior Center and the Salvation Army Senior Center and held three community outreach fairs
- "Yellow Team" residents took lead in short-term PDSA cycles during the flu season to improve work flow and minimize missed opportunities
- "Yellow Team" residents developed a recruiting letter which was sent out in December to patients >65 on "yellow team" who were not up-to-date with their vaccinations
- "Yellow Team" designed an educational handout about the flu vaccine that can be updated and used in future influenza seasons
- Team and individual resident immunization data were calculated for a friendly competition and presented at PCMH meetings
- Immunizations were reviewed on the San Diego Immunization Registry to ensure that i2i wasn't missing patients who were already vaccinated
- Hospital review was done to find patients who were immunized by the Scripps Family Medicine Residency Program during their hospitalization

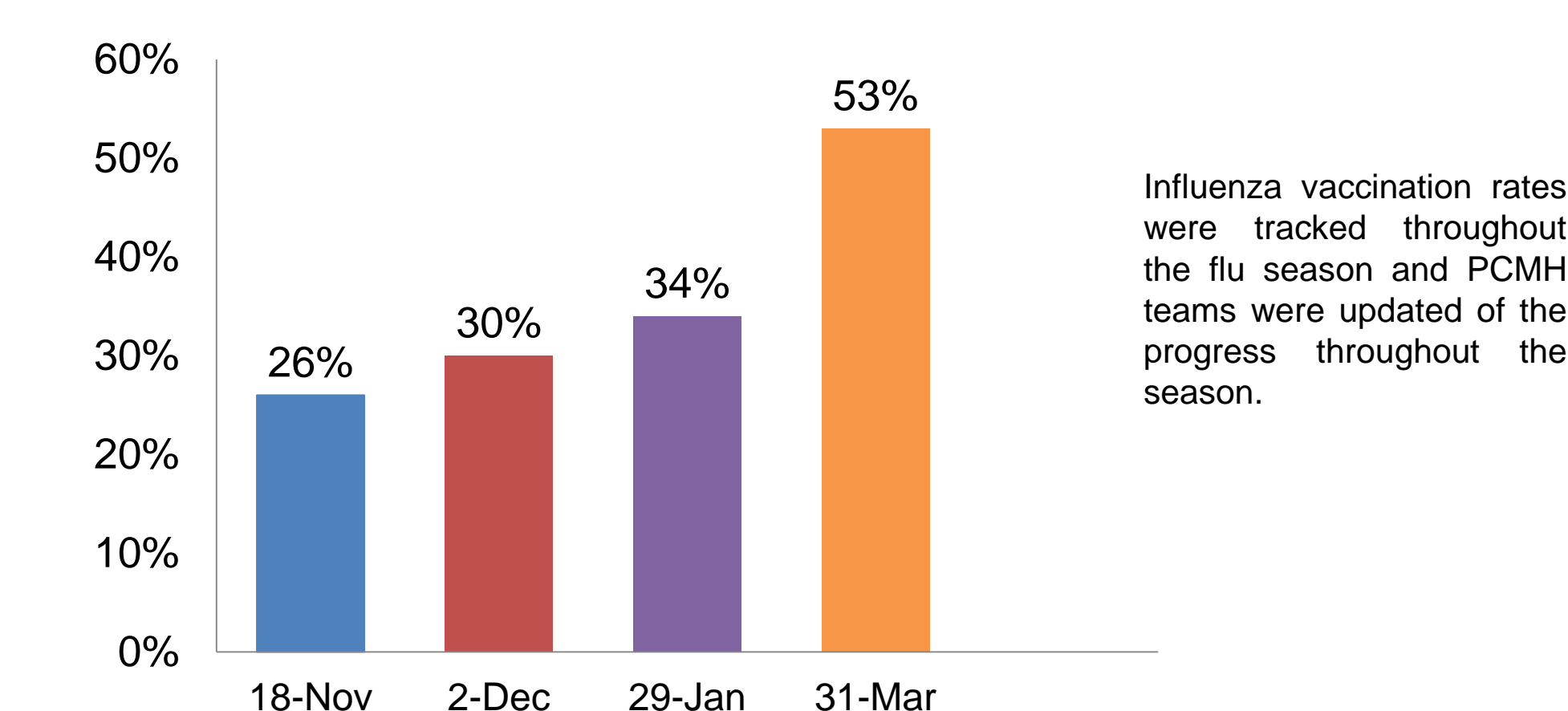


Danielle Richardson, PGY3 and Joanna Hernandez, PGY2 volunteer at a vaccination fair at the Chula Vista Salvation Army

## RESULTS

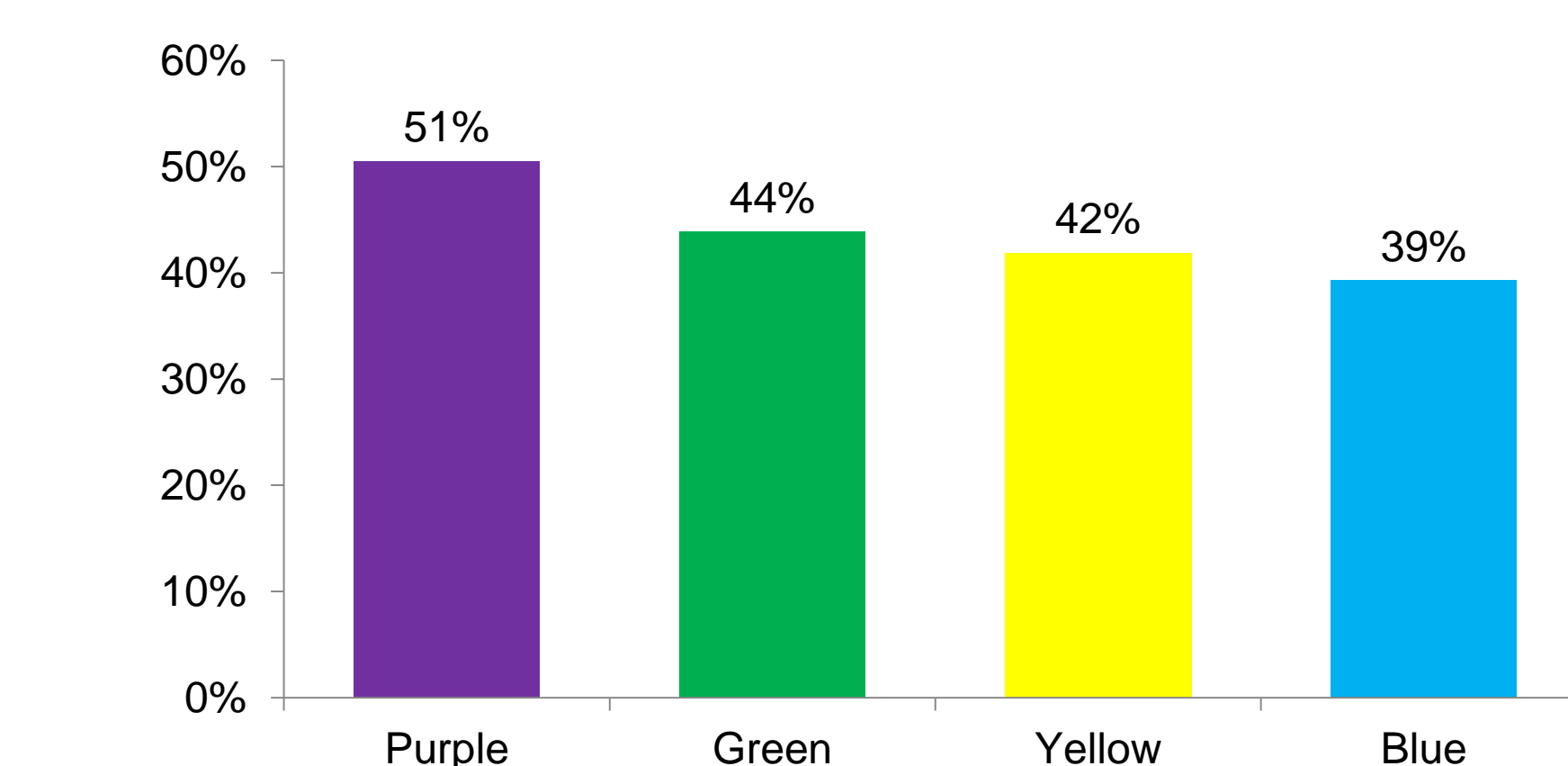
### Chula Vista Medical Plaza

Vaccine	Goal	Administered
Influenza	440 (55%)	457 (53%)
Pneumococcal	162 (75%)	107 (12%)
		83% are now UTD



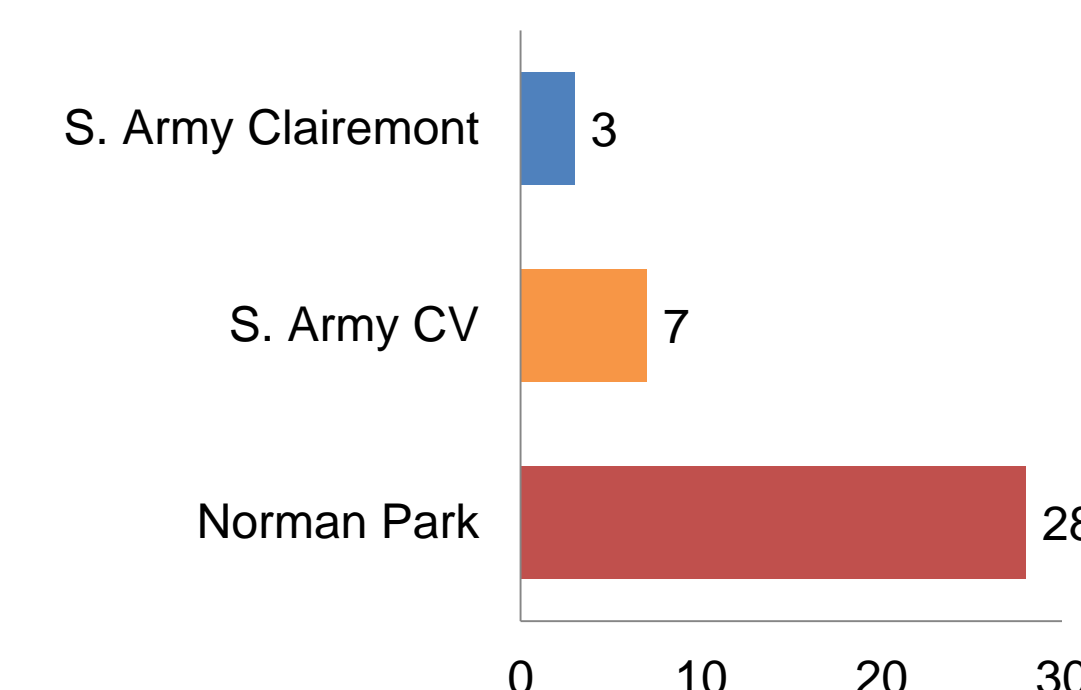
### Chula Vista Medical Plaza

A friendly competition was held between the PCMH "color groups" to encourage administration of vaccines. We tracked all flu vaccines that were given to patients 18 and over and gift card prizes were used as incentives.

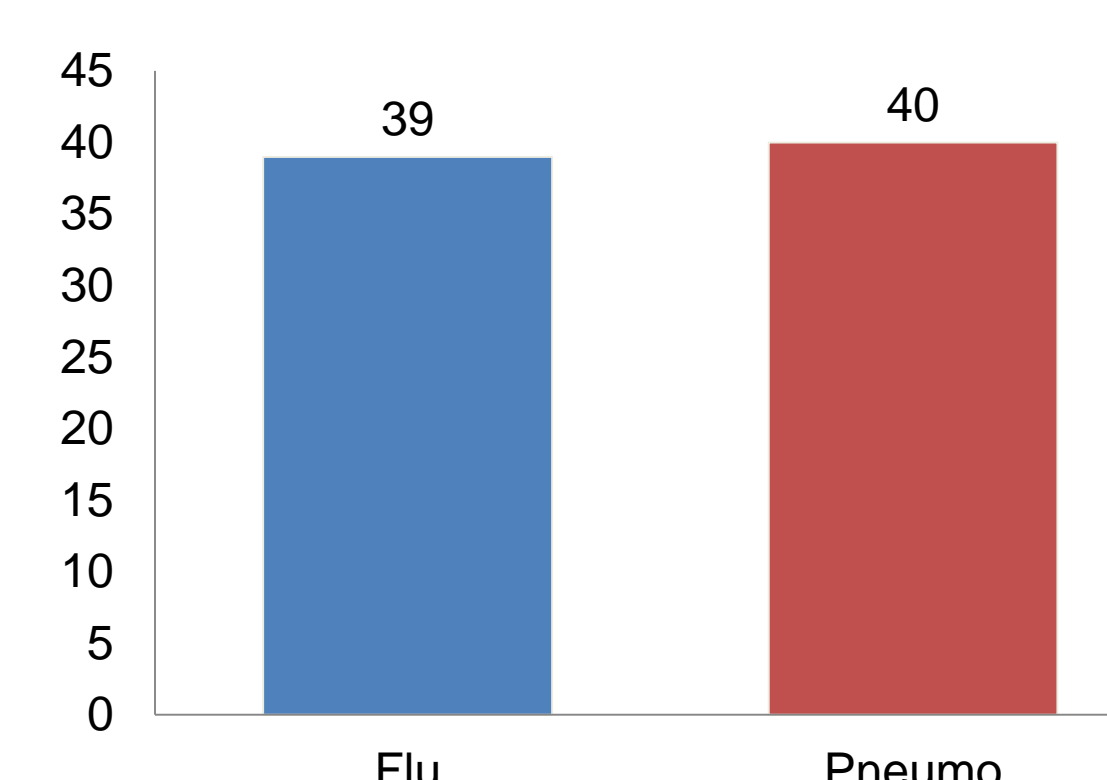


## RESULTS

### Community-Based Projects



### Hospitalized Patients



### Combined Data

Seniors (65 and over)	2012-2013 Flu Season	2013-2014 Flu Season	2014-2015 Flu Season
Influenza vaccine rate	23%	29%	57%
Pneumococcal PPSV23 vaccine rate	71%	61%	83%

## CONCLUSIONS

### Key outcomes

- 457 influenza vaccinations were given to eligible seniors at the Chula Vista Medical Plaza during the 2014-2015 which was more than our absolute goal
- 107 pneumococcal vaccinations were given to eligible seniors at the Chula Vista Medical Plaza during the 2014-2015 flu season and 83% of seniors are now up-to-date
- Successfully established relationships with our community partners and administered 105 flu vaccines which included 38 people over the age of 65
- Successfully administered 39 flu vaccines and 40 pneumococcal vaccines in the hospital setting

### Effective Measures

- "Yellow Team" was instrumental in organizing and leading this project. Each month, different members of the team helped gather data from the i2i registry to show our progress and then reported this data to the other PCMH teams within our clinic.
- "Yellow Team" used the PDSA cycle to dissect challenges faced within our project. This helped us develop ideas such as sending out letters to patients who had not been vaccinated and design an educational handout based on various myths and false information.
- Each "Yellow Team" member was able to participate in various PCMH activities, learn about PDSA cycles, and evaluate health measures from a population perspective
- Our three community outreach fairs were successful in building relationships with different senior centers in our community.

## FUTURE DIRECTIONS

### Community Outreach

- Three community outreach fairs took place in November
- Many seniors had already been vaccinated
- In the future, we hope to have our fairs earlier in the flu season
- Plan on using educational materials about the vaccinations pertaining to myths and false information

### Missed Opportunities

- From our i2i registry data, there are 47% of senior patients who did not receive a flu vaccine at our clinic during the flu season
- Focused chart review showed that many of those clinic visits did not document whether the vaccination was offered or refused
- To minimize these "missed opportunities," different media can be used to remind physicians to address this issue (reminder flag in NextGen EMR)

### San Ysidro Health Center Collaboration

- Collaborate more with the San Ysidro Health Center
- Administer vaccines at the other San Ysidro Health Centers
- Use their resources (transportation, staff, etc) to help us bridge any barriers that are hindering patients from getting their vaccines
- Collaborate with San Ysidro Health Center's growing set of clinical and social service programs for Seniors including an Adult Day Health Center and Medicare PACE program
- May be able to administer vaccines on the mobile clinic that does outreach with several senior housing apartments

### Hospital Tracking

- Need to explore different ideas for creating a more sustainable system in tracking our hospitalized patients
- Allow us to keep track of how successful we are in immunizing patients while they are hospitalized
- Allow us to fill any gaps in our clinic's data for those patients who already received vaccines while hospitalized

## REFERENCES

County of San Diego Community Profiles, 2012 South Region Demographics Profile

## ACKNOWLEDGEMENTS

Support for the Senior Immunization Grant Award was made possible by the AAFP Foundation, through a grant from the Anthem Foundation

Scripps Wellness Center  
Salvation Army Chula Vista and Clairemont  
Norman Park Senior Center  
Raul Trejo, MD  
CVMP medical assistants and staff  
"Yellow Team"  
Scripps Family Medicine Program Residents



"Yellow Team" residents celebrate the end of the year





## 2014-15 Senior Immunization Grant Awards FINAL REPORT FORM for RESULTS & FINDINGS

- The information requested, including Appendix 1-3, should be included in your Final Report.
- Your Final Report is due by May 1, 2015.
- Please include any attachments, graphs, pictures (jpg, if possible) or other items that capture the essence of the outcomes realized by your project.

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### Scripps Family Medicine Residency Program

#### Contact Information

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#### Title of Project

Increasing Influenza and Pneumococcal Vaccination Rates amongst Seniors in a San Diego Border Community

#### Statement of Goal(s) Include your Primary Metrics

Immunization Rates ("Primary Metric"):

##### **Influenza vaccine:**

740 seniors (55%) [Estimated breakdown of 740: 440 seniors (55%) vaccinated at the Chula Vista Medical Plaza; 250 in community outreach settings; and 50 in hospital setting.]

An average of our influenza immunization rates over the past three years was 30%. With a goal of a 25% improvement, our target rate for the 2014-2015 flu season was a 55% rate of influenza vaccination for patients >65 at the Chula Vista Medical Plaza. Our clinic saw 718 patients over the age of 65 from March 2013 – March 2014. We based our immunization estimates on this group plus expected expansion numbers for a total of 800 patients. We estimated that 440 senior patients or 55% would receive the influenza vaccine at the Chula Vista Medical Plaza during the 2014-2015 flu season.

We estimated that an additional 250 persons would receive the influenza vaccine as part of community outreach activities, and an additional 50 patients would receive the vaccine in the hospital setting.

##### **Pneumococcal vaccine:**

Our goal was to increase pneumococcal vaccine rates from 61% to 75% among patients >65 years of age during this flu season. Our estimate was that an additional 162 seniors (20% of current senior patients) would need to be vaccinated to meet this goal.

Current pneumococcal vaccine rates were calculated by examining the report for the 718 senior patients seen from March 2013-March 2014. 438 or 61% had pneumococcal vaccines given between March 2004-March 2014 and were considered up to date. To reach a goal of 75% pneumococcal vaccination for the estimated 800 patients >65 years, 600 persons need pneumococcal vaccine. Since 438 are already immunized, 162 more or 20% of the total will need the pneumococcal vaccine. This would lead to the overall goal of 75% pneumococcal vaccine rate by immunizing new patients and "catching up" current patients >age 65 years who were not immunized.

### **Residents (“Secondary Metric”):**

24 residents will take part in the project. The activities undertaken will fulfill Family Medicine educational requirements in Population Health, Community Medicine and Quality Improvement

### **Impact on Target Population**

1. PATIENT DATA – Complete information in Appendix 1.

2. KEY OUTCOMES (Bullet points)

**a. 457 influenza vaccinations were given to eligible seniors at Chula Vista Medical Plaza during the 2014-2015 flu season**

Our absolute goal for the influenza vaccination was to vaccinate 440 senior patients, and we surpassed this goal by vaccinating 457 patients. Our goal was to increase the percentage of seniors vaccinated from 30% to 55%. This was based on the estimate that we would see 800 senior patients >65 years old during the 2014-2015 flu season. We surpassed this goal and saw 869 seniors during this time frame. Although we only vaccinated 53% of our seniors who were seen during the 2014-2015 flu season, we surpassed our absolute number goal.

**b. 107 pneumococcal vaccinations given to eligible seniors at Chula Vista Medical Plaza during the 2014-2015 flu season and 83% of Seniors are now up-to-date**

Our absolute goal for pneumococcal vaccine administration for senior patients was 162 which would increase our overall average to 75%. We did not administer as many pneumococcal vaccines as we had predicted; however, additional Seniors received the pneumococcal vaccine prior to the official start of the Flu season. At the conclusion of the 2014-2015 Flu season, the patient registry shows 721 of 869 Seniors are now up-to-date on the pneumococcal vaccine (83%)

**c. Community Outreach: 105 flu vaccinations total, 38 to Seniors >65 years of age**

Three immunizations fairs were held in our community throughout the 2014-2015 influenza season: one at the Norman Park Senior center and two at our local Salvation Army. 105 influenza vaccines were given during the senior community events. However the number given specifically to those over 65 years of age was lower than predicted: Norman Park (28), Salvation Army San Diego (3), Salvation Army Chula Vista (7) for a total of 38 flu vaccines.

**d. Hospital vaccinations: 39 flu vaccines and 40 pneumococcal vaccines**

Chart review was done for 154 patients >65 yrs of age admitted to the Family Medicine teaching service from September 2014 through March 2015. All patients were screened for influenza and pneumococcal vaccinations, and this is documented in the chart. There were 39 flu vaccines given and 40 pneumococcal vaccines given during the hospitalization. Reasons for patients not receiving the vaccine included patient refusal, already given in outpatient setting or previous documentation of administration during a previous hospitalization.

### **3. KEY PROGRAM COMPONENTS**

a. Implemented i2i registry tracking into everyday workflow for all residents to track the immunization status of their daily patient panel. This was done in collaboration with the medical assistants on each care team.

b. Established relationship with the Norman Park Senior Center and the Salvation Army Senior Center. Three community outreach fairs were held during November; one at Norman Park Senior Center, one at the Chula Vista Salvation Army, and one at the Clairemont Salvation Army. Three residents volunteered at each outreach fair along with one public health student, and two Scripps nurses.

- c. “Yellow Team” led by Dr. Yarawamai took the lead in short-term PDSA cycles during the Flu Season to improve work flow and to minimize missed opportunities for influenza and pneumococcal vaccination
- d. “Yellow Team” residents developed a recruiting letter which was sent out in December to patients >65 on “yellow team” who were not up-to-date with their vaccinations
- e. Individual chart review of hospitalized patients >65 years to determine whether they received vaccinations as part of their hospital admission during the 2014-2015 flu season
- f. “Yellow team” designed an educational handout about flu vaccine that can be updated and used in future influenza seasons
- g. Team and individual resident immunization data was calculated every month and presented at the PCMH residency meetings

#### 4. **THINGS THAT WORKED BEST** (to accomplish your activities)

##### a. **Use of patient registries with group and individual review**

One PCMH group, the “yellow team”, was instrumental in organizing and leading this project. The residency program has four patient care teams made up of two residents from each class, two medical assistants and one faculty member. Each month, different members of the team helped gather data from the i2i registry to show our progress and then reported this data to the other PCMH teams within our clinic. We also used the PDSA cycle to dissect the challenges we faced within our project. This helped us come up with ideas such as sending out letters to patients who had not been vaccinated. In addition, we also noticed that many patients refused vaccinations based on various myths and false information. This helped us design an educational handout that we hope to distribute during future flu seasons. All in all, each yellow team member was able to participate in various PCMH activities, learn about PDSA cycles, and evaluate health measures from a population perspective. The final percent of residency patients vaccinated (53%) was higher than the general clinic rate of 47%.

##### b. **Community Outreach**

Our three community outreach fairs were successful in terms of building relationships with different senior centers in our community, including the Salvation Army. Even though, we did not vaccinate as many seniors as we had hoped for, these fairs were helpful in building our relationship with these community programs. One of the Salvation Army locations is right next door to our clinic, and this vaccination fair was our first joint project. They have a senior nutrition program that allowed us to offer vaccines to their members, and we also developed and gave a nutritional talk during their lunch hour. We are hoping this will be the start of a long-term relationship with the Salvation Army program in hopes of providing their population with more medical care.

#### 5. **LESSONS LEARNED**

- a. **Community Outreach:** Our three community outreach fairs took place in November, and many of the seniors who attended had already been vaccinated. Many of those who had not received the vaccine were those who had refused it from their primary doctors. In the future, we hope to have our fairs earlier in the flu season to capture more patients. In addition, educational materials about the vaccinations pertaining to myths and false information would be beneficial for those seniors who refuse vaccines each year.
- b. **Missed Opportunities:** From our i2i registry data, there are 47% of Senior patients who did not receive a flu vaccine at our clinic during flu season. Focused chart review showed that many of those clinic visits did not document whether the vaccination was offered or refused. Further review of the San Diego County Immunization Registry (SDIR) was done but only identified 5 additional immunized patients. To minimize these “missed opportunities,” different media can be used to remind physicians to address this issue. It may be possible to have a reminder flag in

the NextGen EMR for those patients who are not immunized so that providers can easily be reminded of their patient's vaccination status.

- c. **San Ysidro Health Center Collaboration:** In the future, we hope to collaborate more with the San Ysidro Health Center and their flu outreach efforts. We may be able to get more involved at the other San Ysidro Health Centers, not just the Chula Vista Medical Plaza, to administer vaccines. It may also be possible to use their resources (transportation, staff, etc) to help us bridge any barriers that are hindering patients from getting their vaccines. The San Ysidro Health Center also has a growing set of clinical and social service programs for Seniors including an Adult Day Health Center and a Medicare PACE program. They also have a mobile clinic that does outreach with several senior housing apartments. At this time they do not offer adult immunizations on the mobile unit. We have talked with SYHC to partner in the next season to offer immunizations in the community.
- d. **Hospital Tracking:** In the future, we will need to explore different ideas for creating a more sustainable system in tracking our hospitalized patients who received vaccinations and relaying that data back to our clinic. This will allow us to keep track of how successful we are in immunizing patients while they are hospitalized. This can also fill any gaps in our clinic's data for those patients who already received vaccines while hospitalized. In fact, when we include our CVMP patients who received the flu vaccine in the hospital, our flu vaccination rate is 57%.

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.

Being a part of this project has given me a better sense of analyzing healthcare in terms of populations rather than by addressing each patient's individual outcomes. Leading the "yellow team" on this project has allowed me to gain a better understanding of quality improvement projects and how the PDSA cycle can guide you through the process to make your project more effective. Considering all the reasons why people might not get vaccinations, I think it is more beneficial to look at the entire population and community and see what common barriers or challenges hinder people from getting their vaccinations. This project has allowed me to get a better sense of that and also realize how despite interventions, providers are still missing opportunities when vaccinations could be administered. I hope to take these skills with me next year and be ready to apply the principles of population health in my new practice site. (Mikela Yarawamai PGY 3)

7. **IMPACT OF INTERVENTIONS** - Complete information in [Appendix 2](#).

#### **Impact on Residents and Team Members**

- 1. Provide a general description of those who worked on the quality-improvement and/or community-based project (e.g., 18 residents, 3 medical students, and 2 MPH graduate students).
  - a. Twenty-four residents in the Scripps Family Medicine Residency took part in the project by analyzing the immunization statuses of their patient panel before each clinic and during monthly clinic QI meetings. Each resident was trained in how to use i2iTracks, and how they can track immunization rates or other quality markers associated with health care maintenance.
  - b. The 24 family medicine residents are divided into four clinic teams with two residents from each class per team. Each team also includes two medical assistants and a faculty member. The "yellow team" took a lead on the immunization project by giving teams monthly updates on the project's progress. The yellow team also took the lead in sending out letters to patients >65 years old who were not up-to-date with their vaccinations and designing an educational hand-out.

- c. One undergraduate public health student worked on this project and attended each of the community outreach fairs. During her time, she also kept track of hospitalized patients at Scripps Chula Vista for the month of October.
- 2. Address the current and future impacts of this project on the residents &/or members of the team.
  - a. This immunization project has been instrumental in educating the residents about population health. When we reflect on the improvement in our vaccination rates during this flu season compared to others, it is evident that our work has made a significant difference. “Yellow team” was able to work on this project from the beginning to end which allowed us to evaluate our baseline data, reflect on our own panel’s vaccination rates, and design educational material targeted at our patient population. We faced different challenges in recruiting patients and tracking our numbers, however this quality improvement project will allow us to implement measures that were successful in the future seasons to come. All of these steps have given residents exposure to a quality improvement project targeted at improving population health outcomes. The residents also gained experience working more closely with their medical assistants on a clinical project.
- 3. If applicable, describe the impact (on your project) of the new ACIP pneumococcal recommendation issued on September 19, 2014 (Both PCV13 and PPSV23 should be administered routinely in series to all adults aged ≥65 years. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6337a4.htm#box>)
  - a. Unfortunately, the PCV13 is not available for adults at our clinic, and these new updates did not impact our project.

**Education and Outreach**

**1. Summary of accomplishments**

- a. Overall, we are pleased with our success in vaccinating 457 seniors in clinic and an additional 39 patients in the hospital during the flu season and surpassing our absolute number goal. We are also very pleased that our percentage of those vaccinated for flu increased to 57%, which is a tremendous and significant improvement compared to years past where our average rate of flu vaccination was only 30%.
  - b. We are also very pleased with the three community outreach fairs that took place in November. We are hoping these fairs can be enhanced and continued in the years to come.
  - c. “Yellow team” successfully completed this quality improvement project and all members, including faculty, residents, and medical assistants were actively involved. This group project gave all individuals exposure to tracking vaccines using the i2i patient registry.
  - d. All 24 residents were involved in this friendly competition and were given monthly updates on the projects progress. The final group and individual numbers will be determined this month and prizes awarded to residents and medical assistants.
- 2. List of clinical & patient education and outreach materials produced or used in this project.
    - a. Recruiting letter
    - b. Patient education hand-out
    - c. Senior Nutrition presentation to augment the Salvation Army Health fair events.
  - 3. List of presentations with the date(s) and brief description of the audience.
    - a. Monthly presentations for the Scripps Family Medicine residents and Chula Vista Medical Plaza medical assistants
  - 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.

## **Sustainability**

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

This project has many activities that can be continued in the future to sustain and increase our vaccination rates amongst the elderly including the following:

1. Daily i2iTrack print-outs of residents' patient panels showing the immunization statuses of their patients
2. Continuing the relationship with Norman Park and Salvation Army Senior Center and organizing outreach health fairs early in the Flu season so to provide immunizations to these local elderly populations and educate them on the importance of vaccinations
3. Continuing to use the PDSA cycle to analyze the outcomes and challenges that the project faces to ensure quality outreach measures
4. Continuing to use letters to recruit patients who are not vaccinated
5. Use educational hand-outs to dispel any false information or myths pertaining to different vaccines. The current draft will be updated and printed in a user friendly format.

## **Project Impact Statement for Donors**

What would you like the donors who supported this project to know about this project and the benefit you derived from receiving this grant?

This immunization project has been instrumental in educating the residents about population health. Each step of the process has given residents exposure to a quality improvement project targeted at improving population health outcomes. When we reflect on the improvement in our vaccination rates during this flu season compared to others, it is evident that our work has made a significant difference in our community. The project has improved vaccination rates within our clinic in just one season. In addition, it has allowed us to connect with different community groups throughout the South Bay.

**Budget Update** – Complete information in [Appendix 3](#).

## Appendix 1: PATIENT DATA for 2014-15 Senior Immunization Grant Award

### I. INFLUENZA VACCINE INFORMATION: 2014-15 Flu Season

- 1a. Total # of seniors (adults aged ≥65) served by your residency who were **eligible** for an *influenza* vaccine from 9/1/14 -3/31/15: **869**
- 1b. Total # of seniors who **received** an *influenza vaccine* from 9/1/14 - 3/31/15: **457**
- 1c. Historical Data – Enter data in the table by clicking on the box and typing in the numbers

Seniors (age 65 and older)	2012-2013 Flu Season (Sep 2012-Mar 2013)	2013-2014 Flu Season (Sep 2013-Mar 2014)	2014-2015 Flu Season (Sep 2014-Mar 2015)
Influenza Vaccine Rate (%)	<b>23%</b>	<b>29%</b>	<b>57%</b>
Numerator/Denominator (absolute numbers used to calculate rate)			<b>496/869</b>

- 1d. Summary of methodology used to obtain the data and information:

The i2iTracks system pulls data from the NextGen EMR, and therefore, only identifies immunizations administered at the clinic. Using i2iTracks, we did a search of patients 65 or older who were seen at least once from Sept 2014 to the end of March 2015 by any resident physician or faculty physician. The report generated the dates that the influenza or pneumococcal vaccines were administered for each patient if given at our clinic. The influenza immunization rate was calculated by dividing the number of patients who were given the vaccine from Sept 2014 to March 2015 by the total number of patients. We included patients identified during hospitalization and given the influenza vaccine.

### II. PNEUMOCOCCAL VACCINE INFORMATION: 2014-15 Flu Season

\*Note: New ACIP recommendations for PCV13 and PPSV23 use in adults aged ≥65 were issued on Sep 19, 2014 during the course of this grant. They were NOT required to be implemented by grant recipients.

- 2a. Total # of seniors who were **eligible** for a *PPSV23* vaccine who were served by your residency from 9/1/14 - 3/31/15: **869**
- 2b. Total # of seniors who **received** a *PPSV23* vaccine from 9/1/14 – 3/31/15: **107**
- 2c. Historical Data – Enter data in the table by clicking on the box and typing in the numbers

Seniors (age 65 and older)	2012-2013 Flu Season (Sep 2012-Mar 2013)	2013-2014 Flu Season (Sep 2013-Mar 2014)	2014-2015 Flu Season (Sep 2014-Mar 2015)
PPSV23 Pneumococcal Vaccine Rate (%)	%	%	<b>12%</b> <b>(83% utd)</b>
PPSV23 Numerator/Denominator (numbers used to calculate rate)			<b>107/869</b> <b>721/869 utd</b>
*Number of seniors who received <b>PCV13</b> during specific time period			<b>0</b>

- 2d. Summary of methodology used to obtain the data and information:

Using i2iTracks, we did a search of patients 65 or older who were seen at least once from Sept 2014 to the end of March 2015 by any resident physician or faculty physician. The report generated the dates that the pneumococcal vaccines were administered for each patient if given at our clinic. The pneumococcal immunization rate was calculated by dividing the number of patients who were given the vaccine from Sept 2014 to March 2015 by the total number of patients. As noted above 107 vaccinations were given during the Flu season, but 721 of 869 seniors (83%) are now up to date.

### III. COMMUNITY-BASED PROJECTS ONLY: INFLUENZA & PNEUMOCOCCAL INFORMATION: 2014-15 influenza season [\*Note: New ACIP recommendations for PCV13 and PPSV23 use in adults aged ≥65 were issued on Sep 19, 2014 during the course of this grant. They were NOT required to be implemented by grant recipients]



- 3a. Total # of seniors served by this project through community outreach from 9/1/14 – 3/31/15: **We estimate that a total of 105 seniors came to three community outreach fairs combined.**
- 3b. Total # of seniors served through community outreach who **received** an influenza vaccine from 9/1/14– 3/31/15: **38** Is this data included in the data presented in question 1b and 1c? **No**
- 3c. Total # of seniors served through community outreach who **received** a PPSV23 vaccine from 9/1/14- 3/31/15: **None** Is this data included in the data presented in question 2b and 2c? **No**
- 3d. Total # of seniors who **received** a PCV13 vaccine\* from 9/1/14 – 3/31/15: **None** Is this data included in data presented in 2c? **No**
- 3e. Summary of methodology used to obtain the data and information:  
 Community outreach settings: We held three immunizations fairs in our community: one at the Norman Park Senior center and two at our local Salvation Army. Norman Park (28), Salvation Army San Diego (3), Salvation Army Chula Vista (7) for a total of 38 flu vaccines. We kept track of how many flu vaccinations were given, but did not keep track of the total number of seniors >65 attended each fair. In addition, pneumococcal vaccinations were not offered at these fairs.

**IV. PNEUMONIA-RELATED HOSPITALIZATION RATES FOR AGE ≥ 65, Reported Over 2 Flu Seasons**

4a. Historical Data – Enter data in the table by clicking on the box and typing in the numbers

<b>PNEUMONIA-RELATED HOSPITALIZATION RATES FOR SENIORS AGE ≥ 65</b>		
<b>Patients 65 and older</b>	<b>2013-2014 Flu Season (Sep 2013-Mar 2014)</b>	<b>2014-2015 flu season (Sep 2014-Mar 2015)</b>
<b>Community Acquired Pneumonia</b>	<b>653</b>	<b>22</b>
<b>Pneumococcal Pneumonia</b>	<b>20</b>	<b>2</b>
<b>Influenza-Related Pneumonia</b>	<b>16</b>	<b>3</b>

- 4b. Summary of methodology used to obtain the data and information:  
 The 2014-2015 Flu Season pneumonia-related hospitalization data reflects only patients admitted to the family medicine inpatient service during this time. The 2013 data reflected total admissions to Scripps Mercy Chula Vista hospital, but we were not able to get that data for the current Flu season. The Family Medicine inpatient pneumonia data was obtained by running a report from our inpatient billing program that compiles patient ages and diagnoses. However, the accuracy of the data depends on precise coding. Cases of community acquired pneumonia, pneumococcal pneumonia or influenza-related pneumonia may have been missed.