

BACKGROUND

- Seniors are at great risk of complications from influenza
 - 80-90% of influenza related deaths occur in people over 65 years
 - 50-70% of influenza related hospitalizations occur in people over 65 years
- Risk of invasive pneumococcal disease is 10 times higher in older adults compared with younger individuals
 - 18,000 or more adults over age 65 die from pneumococcal disease each year
- Influenza and pneumococcal vaccines help prevent infection and thus prevent morbidity and mortality

OBJECTIVES

- To increase influenza immunization rates from 29% to 55% from September to March 2015
- To increase pneumococcal immunization rates from 28% to 55% from September to March 2015

METHODS

Residency Description:

- 9-9-9, community based, university affiliated program in Wichita Kansas
- 700-800 adults older than 65 years seen in the Family Medicine Center each year.

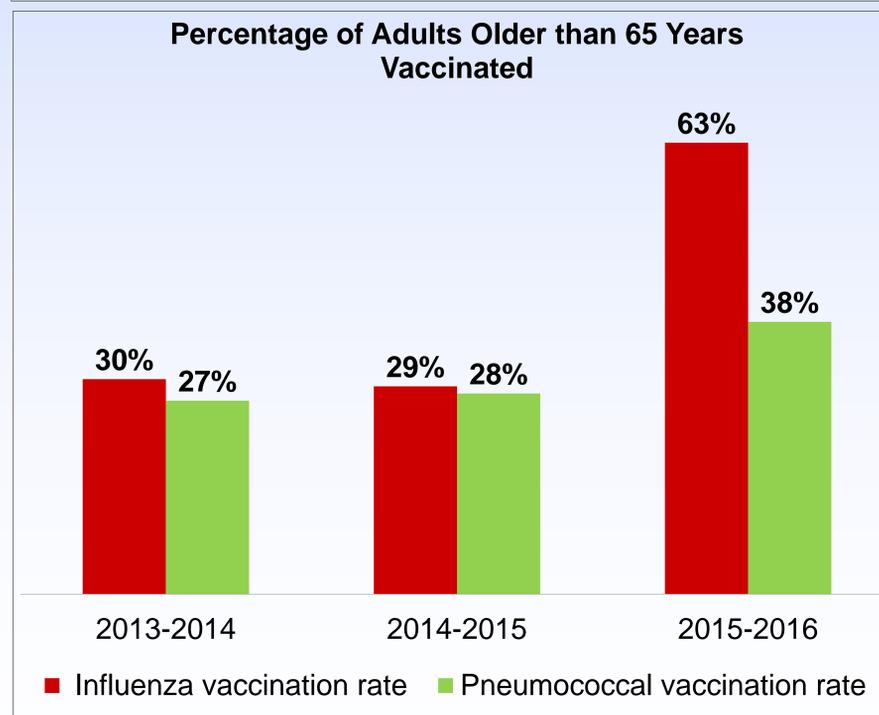
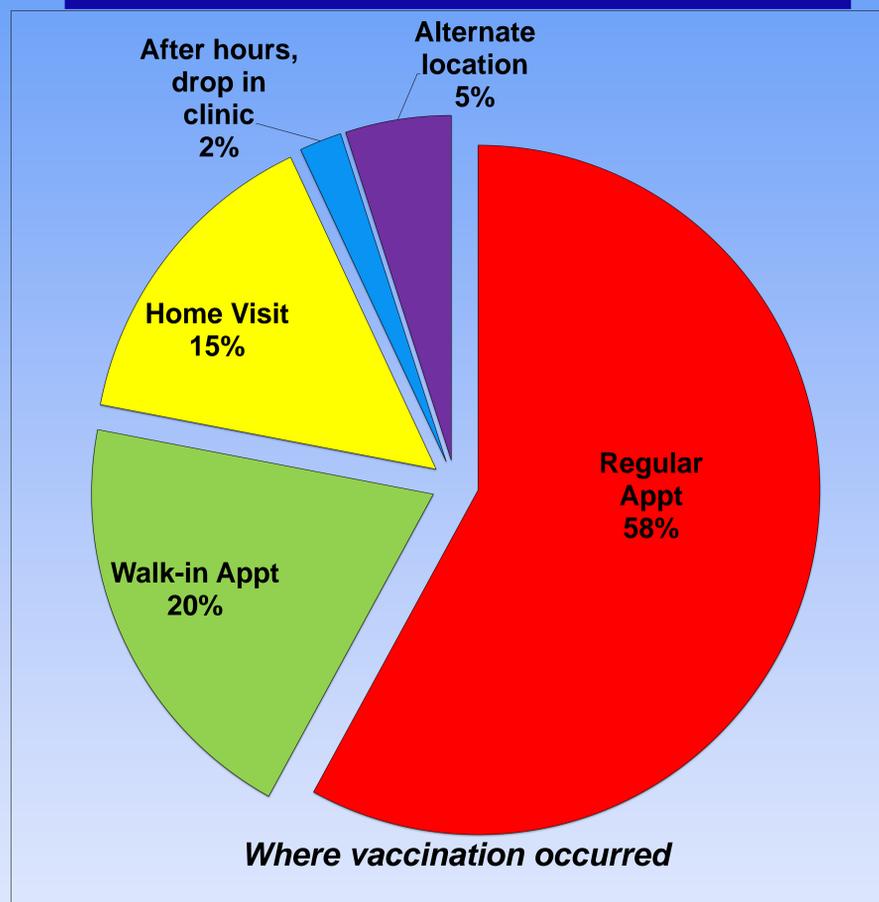
Interventions:

- Patient education and motivation strategies
 - Direct mail campaign encouraging vaccination
 - Posters within the office encouraging vaccination
 - Drawing for a prize from all who had received an influenza vaccine regardless of location vaccine given
- Staff involvement
 - Front desk staff to identify patients early and communicate with nursing staff
 - Vaccine protocol changed to add a standing order for nursing staff
- Vaccine provided
 - During regularly scheduled appointments
 - Through a walk-in clinic
 - During a home visit
 - After hours, drop in clinic

Measurement:

- Vaccinated percentage of each physician's panel
- Vaccinated percentage of all patients on a team's panel
- Calculated and shared monthly to encourage ongoing improvement

RESULTS



DISCUSSION

- Most patients chose to be vaccinated at their regular appointment following encouragement by their physician and nurse.
- Home visit uptake was limited in the project and only assisted living populations were able to be vaccinated with this method. Opportunity exists for expanding this service.
- Significant improvement (34%) seen in influenza vaccination rates.
- Pneumococcal vaccination limited by new recommendations and unclear strategies within the office on how to implement the new recommendations
- Physician accountability and performance data key to improved immunization rates

CONCLUSIONS

- Higher vaccination rates in a population are possible with team-based commitment to improvement.
- Physician recommendation of vaccination key to patient decision to vaccinate

REFERENCES

Kostova D, Reed C, Finelli L, Cheng P-Y, Gargiullo PM, Shay DK, et al. (2013) Influenza Illness and Hospitalizations Averted by Influenza Vaccination in the United States, 2005–2011. PLoS ONE 8(6): e66312.

ACKNOWLEDGEMENTS

This project would not have been possible without the 14 faculty physicians, 25 resident physicians and nearly 30 staff members at the Wesley Family Medicine Center who committed to improving vaccination rates among seniors.

We are grateful for the support of the American Academy of Family Physicians Foundation Senior Immunization Grant Awards who provided the funding for us to make lasting changes to improve the health of our patients.



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.
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Name of Family Medicine Residency Program: University of Kansas School of Medicine- Wichita Family Medicine Residency Program at Wesley Medical Center

Contact Information

1. Gretchen M. Dickson, MD, MBA, FFAFP, Program Director, gdickson@kumc.edu

Title of Project: Improving Access to Immunizations for Seniors

Statement of Goal(s)

Our goals were:

- 1) To increase influenza immunization rates for patients over 65 years from 29% to at least 55% from September 2015 through March of 2016.
- 2) To increase pneumococcal immunization rates for patients over 65 years from 28% to at least 55% from September 2015 through March of 2016.
- 3) To have at least 15% of patients over age 65 years vaccinated during the 2015-2016 season to receive the vaccine in a drive-up after hours vaccine clinic.
- 4) To have at least 15 % of patients over age 65 years vaccinated during the 2015-2016 season to participate in a home visit vaccination program.
- 5) To contact at least 95% of patients over age 65 years to inform them of the benefits of vaccination and options for vaccination within our clinic.

Impact on Target Population

1. PATIENT DATA – Please see Appendix 1
2. KEY OUTCOMES
 - a. Our residency program increased our influenza vaccination rate among adults age 65 years and older by 34% compared with the 2014-2015 season.
 - b. Our residency program was unable to meet our goal to increase pneumococcal vaccination rates and increased only at best 10% compared with the previous season.
 - c. Patients were eager to participate in the vaccination program following a direct mail campaign to remind individuals of the need to receive their immunizations.
3. KEY PROGRAM COMPONENTS
 - a. We utilized several methods to provide immunizations to seniors. These included
 - i. Vaccine provided during regularly scheduled appointments. This method worked well and coupled with an ongoing posting of provider performance data, was our most successful method of encouraging vaccination. 58% of patients chose this method for vaccination.
 - ii. Vaccine provided during a walk-in clinic during regular office hours. This was our second most popular method with patients as evidenced by the second highest rate of vaccine obtained in this manner. 20% of patients chose this method for vaccination
 - iii. Vaccine provided during a home-visit. This portion of the program was not successfully implemented. We learned that we did not have adequate systems in place to identify

these individuals and provide the vaccines as we had intended. We have since worked on the systems issues and hope to utilize this method in the future. We were able to vaccinate our patients who live in assisted living through a home visit program, but otherwise we were not able to coordinate this successfully for the community dwelling elderly. 15% of patients chose this method of vaccination

- iv. Vaccine provided during a drive-up, after hours, vaccine clinic. We utilized a Saturday morning for this event and had fairly poor uptake among patients. We believe there were several factors that led patients to not choose this option including the weather on the day that was chosen, the availability of appointments and options during regular clinic times and the availability of vaccines as after-hours options at other locations such as local grocery and drug stores. 2% of patients chose this method of vaccination with 5% of patients choosing to receive vaccine at another location than through our office.
 - b. We contacted seniors through a direct mail and email campaign and found this to be a successful tactic to remind individuals of the need to vaccinate. Many seniors identified the mailer as an important reminder to receive immunizations.
4. THINGS THAT WORKED BEST
- a. We found several elements of the project worked best to encourage vaccination. First, involving all physicians and staff in the planning and the ongoing monitoring of the project was critical to improve buy-in for the interventions. Second, offering a small incentive for patients to receive the vaccination had a dramatic impact on the number of patients who sought vaccine in outside locations, but provided information about that vaccine to our office. While this is overall a small proportion of our patients, having documentation of their vaccines is helpful. Third, we found that the encouragement of a trusted primary care physician was among the most powerful motivators for patients to receive the vaccine and as such we saw the most vaccines offered during regularly scheduled appointment times. Finally, the ongoing posting and publication of the data was critical to allow individual physicians to improve their own performance on a regular basis. All of the physicians in the office vaccinated more patients against influenza and pneumococcal disease in the 2015-2016 season than they had the year prior.
5. LESSONS LEARNED
- a. We've learned several critical lessons. First, the provider accountability and performance data is an essential component in driving awareness of the issue and commitment to the project. Second, we found that although we thought we could increase vaccination rates with other options for administration, it was the reminder cards and the physician asking about vaccination that made the biggest impact on our results.
6. PERSONAL STORY.
- a. Two stories provide a glimpse into the impact that we have made on our patients and residency program as a result of this project. First, during our drive up after hours vaccination clinic we had very few participants. It would have been easy to be discouraged as a member of the staff who had carefully planned the event and hoped to see many patients seeking out immunizations through this method. However, as we debriefed afterward, the staff were positive and looking toward the future. The conversation was about what we would do differently next time to reach more people and to have a better result. More than that, one staff member remarked that they knew that they had made a difference to the people who were vaccinated that day. It was a compelling reminder that while we were in pursuit of vaccinating more of our population, there is a real impact to the individual who is now protected and previously was not. The reminder that the impact of increased immunizations is both individual and population based was important. The second story illustrates the impact that a project such as this one can have on patients even outside of the target group. We enjoyed a relatively mild influenza season this year with very few admissions or positive influenza cases in our hospital. One day, a physician was remarking to the nursing staff that we really hadn't seen much flu this year and was overheard by a patient. The patient quickly suggested that perhaps the reason for that was we had done so much work to vaccinate everyone to protect them. The patient was over 65 years old and commented that because of what she had learned from her doctor she not only received her influenza vaccine, but also made sure that her children and grandchildren received

theirs. She noted that she used to believe she would get sick from the injection, but now knew better and would continue to be vaccinated yearly to prevent the possible complications.

Impact of Interventions – Please see appendix 2.

Impact on Residents and Team Members

1. Our project was the collaborative effort of 14 faculty physicians, 25 resident physicians and nearly 30 staff members including front desk, nursing, medical records, social work and radiology technician staff members. Our project was led by our Patient Centered Medical Home team that includes a cross spectrum of the individuals who work in all areas of our office.
2. The current and future impact of this project has been to allow us to develop best practices in promoting immunizations of all types and to see the real impact that we can have on patient care through a dedicated, focused effort to improve our quality in a given arena. I suspect we will continue to push forward with improvements in influenza and pneumococcal immunization rates as we build upon our successes to achieve future improvements.

Education and Outreach

1. Our biggest accomplishment was achieving our goal to increase influenza immunization among patients over 65 years of age. We also increased our influenza immunization rates among all patients in our office which was a gratifying side effect of the project. We were less successful in achieving our goal with respect to pneumococcal vaccine, though I think that we learned some very helpful lessons that will allow us to be successful in the future. For example, we found that we need more education and clearer workflow in how we will implement the new recommendations regarding pneumococcal vaccination. A faculty member has taken this on as a project so that we can see similar increases in our rates of pneumococcal vaccine in the future. Additionally, we gained knowledge that will stand us in good stead with respect to the types of vaccination administration options that our patients find useful. This will help us streamline clinical operations to make good decisions about where to invest resources in the future.
2. We utilized posters available from the CDC to encourage influenza and pneumococcal vaccination as well as the vaccine safety sheets available from the manufacturer as patient education materials.
3. We presented monthly at our Patient Centered Medical Home meetings that include all physicians and staff in our clinic with respect to our plans, progress and ongoing outcomes.

Sustainability

Sustainability is a key factor in our project having a long term impact on the health of our patients. Using this project, we were able to identify interventions that produced the most success in terms of encouraging vaccination. Developing clinic wide buy-in, frequent updates in provider performance data and a reminder to patients had the biggest impact in encouraging vaccination. We will plan to continue to analyze the data that was collected to plan to utilize the high yield interventions for the 2016-2017 vaccination season and to apply lessons learned to our ongoing efforts to vaccinate for pneumococcal and other diseases. Because we did have some success, we have a dedicated team that includes individuals from all areas of the office that have taken on the role of vaccination champions to continue this work and apply it to other vaccines to continue our success.

Case Study Information– Please see Appendix C.

Project Impact Statement for Funders

In a residency program we not only have the responsibility of providing outstanding care for our patients, but also teaching our residents best practices that they can use in the future to provide outstanding care to their patients. This project allowed us to accomplish both of our missions. The residents learned about quality improvement, how to optimize a system to accomplish better patient care and the power of well-designed interventions in improving a clinical outcome. More than that, the residents learned how to deal with the intervention that does not occur as planned and how to re-group and move on from that. Our patients enjoyed the benefit of improved performance from their physicians. Plus, the lasting effect of this project will be

systems that are designed to improve vaccination rates not only for the patients who were seen in 2015-2016, but for all future patients in our office. Through this grant we impacted 458 individual patients, but through the education that this grant provided to our office and to our residents we will impact many more for generations.

Appendix 1: PATIENT DATA for 2015-2016 Senior Immunization Grant Award

PLEASE PROVIDE THE DATA IN THE FORMAT THAT IT IS BEING REQUESTED. If you want to express your results in a different way, please complete the info below, as requested, and then include the additional information labeled, "Attachment to Appendix 1".

I. INFLUENZA VACCINE INFORMATION: 2016-2016 Flu Season

- la. Total # of seniors (adults aged ≥65) served by your residency who were **eligible** for an *influenza* vaccine from 9/1/15 - 3/31/16: 722 seniors over age 65 years
- lb. Total # of seniors who **received** an *influenza vaccine* from 9/1/15 - 3/31/16: 458 seniors received vaccine
- lc. Historical Data – Enter data in the table by clicking on the box and typing in the numbers

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 (%)	30 %	29%	63 %
Numerator/Denominator (absolute numbers used to calculate rate)	233/778	212/730	458/722

- ld. Summary of methodology used to obtain the data and information:
We utilized the registry function of our electronic medical record to obtain the data. We included all patients seen who were over age 65 years from September 1, 2015 through March 31, 2016 in our denominator. Any patient who received an influenza vaccine or for whom we what documentation of vaccination provided by another office or entity were included in the numerator.

II. PNEUMOCOCCAL VACCINE INFORMATION: 2015-2016 Flu Season

*Note: New ACIP recommendations for PCV13 and PPSV23 use in adults aged ≥65 were issued on 9/19/14.

- Ila. Total # of seniors who were **eligible for a PPSV23** vaccine who were served by your residency from 4/1/15 - 3/31/16 : 722 seniors over age 65 years
- Ilb. Total # of seniors who **received a PPSV23** vaccine from 4/1/15 - 3/31/16: 217 seniors received PPSV23 with an additional 57 seniors receiving PCV13.
- Ilc. Historical Data – Enter data in the table by clicking on the box and typing in the numbers

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 (%)	27 %	28%	30 % (38% combined)
PPSV23 Numerator/Denominator (numbers used to calculate rate)	210/778	201/730	217/722
*Number of seniors who received PCV13 during specific time period			57

- Ild. Summary of methodology used to obtain the data and information:
We utilized the registry function of our electronic medical record to obtain the data. We included all patients seen who were over age 65 years from April 1, 2015 through March 31, 2016 in our denominator. Any patient who received a PPSV23 vaccine or for whom we what documentation of vaccination provided by another office or entity were included in the numerator.

III. COMMUNITY-BASED PROJECTS ONLY: INFLUENZA & PNEUMOCOCCAL INFORMATION: 2015-2016 Flu Season

- IIIa. Total # of seniors served by this project through community outreach from 9/1/15 – 3/31/16: [Click here to enter text.](#)
- IIIb. Total # of seniors served through community outreach who **received an influenza vaccine** from 9/1/15 – 3/31/16: [Click here to enter text.](#)
- Is this data included in the data presented in question 1b and 1c? Yes No
- IIIc. Total # of seniors served through community outreach who **received a PPSV23 vaccine** from 9/1/15 – 3/31/16: [Click here to enter text.](#)
- Is this data included in data presented in 2c? Yes No
- IIIId. Total # of seniors who **received a PCV13 vaccine** from 9/1/15 – 3/31/16: [Click here to enter text.](#)

- Is this data included in data presented in 2c? Yes No

IIIe. Summary of methodology used to obtain the data and information:

[Click here to enter text.](#)

Appendix 2. IMMUNIZATION INTERVENTIONS: DEGREE OF IMPACT

Instructions:

- Place your cursor on the box and click to check the box.
- Please check only one box per row.
- Evaluate the impact of the intervention on increasing senior influenza and pneumococcal immunization rates.
- Add notes below the table, as needed, if you want to explain further.

IMMUNIZATION INTERVENTIONS	HIGH Impact	SOME Impact	LOW Impact	NO Impact	NEGATIVE Impact	Did NOT Use
Clinic Based Education 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Community-Wide Education 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Community &/or Local Government Partnerships	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Home Visit	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mobile Clinic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Immunization Champion System	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IIS at Population Level 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IIS at point of Clinical Care 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clinic EMR linked with State Immunization Registry	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patient Incentive Rewards 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patient Reminder and Recall Systems	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patient-Held Paper Immunization Records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Provider Assessment & Feedback	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Provider Education	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Provider Reminders	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Provider Friendly Competitions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Standing Orders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Reduced Cost of Vaccine \$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Transportation reimbursement or vouchers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>	
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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.

NOTES:

Please note the home visit likely had low impact because we were not able to implement it to its full potential as we had envisioned it. We suspect that in the future with better support systems we will be able to implement this in a more impactful and improved manner.

University of Kansas-Wichita Family Medicine Residency at Wesley**TEAMWORK & ACCOUNTABILITY PAY OFF IN IMPROVED IMMUNIZATION RATES**

When the announcement for 2015 Senior Immunization Awards crossed the desk of Gretchen Dickson, MD, MBA she knew she wanted to submit an application—but this time, she'd go about it differently. "We had applied for this grant in previous years but had not been successful," she acknowledged. The awards, offered through the American Academy of Family Physicians (AAFP) Foundation, support the efforts of Family Medicine residency programs to implement quality improvement projects that increase influenza and pneumococcal vaccination rates in patients age 65 and older.

This time around, Dr. Dickson was determined to construct a project that included the participation of *everyone*—all 14 faculty physicians, 25 resident physicians and nearly 30 staff members—who worked at The University of Kansas School of Medicine-Wichita's Family Medicine Residency Program at Wesley Medical Center. As Program Director (and then Acting Medical Director), Dr. Dickson easily appropriated time during a monthly clinic-wide meeting to brainstorm project ideas. "That drew broad support from staff right off the bat," she said.

What emerged was a multi-faceted approach that integrated patient education strategies with four distinct methods of vaccine delivery to senior patients—traditional office visits, walk-in vaccination clinics, a drive-up after-hour vaccination clinic and home visit vaccinations. By offering these alternatives to their patients,

the Family Medicine Center (FMC) hoped to increase flu immunization rates from 28 percent to at least 55 percent and pneumonia immunization rates from 28 percent to at least 55 percent for their 770 eligible seniors. The project anticipated that at least 15 percent of these patients would receive the vaccine in the drive-up clinic, and another 15 percent would participate in the home visit program. "And through our outreach activities, we hoped to connect with at least 95 percent of our target group to inform them of the benefits of vaccination and their options for vaccination within the FMC," said Dr. Dickson.

As the launch date drew near, teams were formed, each charged with implementing a distinct component of the project. "I asked the residents to join the group whose 'mission' most interested them," said Dr. Dickson. "For example, some were drawn to the marketing aspect, while others wanted to help plan the drive-up clinic."

The "patient education" team was among the first to kick off their activities with a marketing campaign that used direct mail postcards and email messaging to stress the importance of timely immunizations. Patients were also reminded to either come in or inform staff if they had been vaccinated elsewhere. Posters ordered from the Centers for Disease Control and Prevention (CDC) soon embellished walls throughout the FMC to encourage flu and pneumonia vaccinations; safety sheets provided by the vaccine manufacturer were also made

available. The energy invested in building patient awareness also served to energize staff. “We all wore our ‘I got vaccinated’ stickers,” said Dr. Dickson, “and the patients definitely took note.”

Project leadership was put in the hands of an existing Patient Centered Medical Home Team, which served to increase ownership. “This team includes representatives from across the spectrum of clinic staff – reception, nursing, medical records, x-ray, as well as the resident and attending physicians—a very good group,” explained Dr. Dickson. The Medical Home Team was given updates at regular monthly meetings regarding plans, progress and ongoing outcomes. “They were also a sounding board for anticipating/evaluating the impact of certain proposed interventions.”

Dr. Dickson explained one of the beneficial suggestions to come out of the Medical Home Team. “In the past, we didn’t track patients who had refused immunizations, and the nurses were reluctant to push the patient further,” said Dr. Dickson. “But one of the nurses on the leadership team figured out a way to document these refusals, so now we can find out what the barriers are and address them. She also suggested providing the nurses with a script to use with patients in these circumstances, and this has worked very well.”

A certain amount of confusion raised by the guidelines for sequencing and administering the two pneumonia vaccines also brought helpful lessons. “We found that we needed more education and a clearer workflow to best implement the new pneumococcal vaccination recommendations. A faculty member has since taken this on as a project.”

The realities of serving an older population gave rise to additional process improvements. “Transportation is so often an issue, and some of our patients struggle to come into the

office,” acknowledged Dr. Dickson. “If we didn’t have the needed vaccine available on the day they came in, they may not get it at all. So, we saw that we had to think and plan ahead by running lists of who we needed to see and what vaccines they were missing so we could plan how to get the vaccine to them.”

Efforts at advance planning placed even greater emphasis on documenting the patient’s vaccination history—but achieving greater accuracy proved challenging. “Sometimes we’d ask a patient about getting, for example, the pneumonia vaccine and we’d hear things like, ‘Oh, I got this from my lung doctor two years ago.’ We always intended to comb through the medical records of patients we suspected weren’t covered to ferret out the information. But when things got really busy in the clinic, the easy default would be, ‘Oh, I’ll just do it next time.’ So, we started doing chart analysis for patients with low rates of pneumonia vaccinations and saw a big increase in vaccinations when staff took the time to do this. Now, if we do have a ‘next time’ moment, we’ll be ready when it comes.

“We now have a better way of capturing and recording information in the patients’ charts. We changed where we enter vaccines in the medical record no matter where they are received,” Dr. Dickson continued. “We hadn’t been as diligent at capturing this information, but now we hunt it down.” Consistent requests for patient vaccination records have improved cooperation from other providers, whether it be the Sedgwick County, Kansas Health Department or the local pharmacy at the grocery store. “We now have individuals at these locations who understand what we need, so we often don’t even have to ask—they’ll just send the records in.” Dr. Dickson also credits \$5 gift cards offered as an incentive to patients for reporting off-site vaccinations as beneficial to this effort.

She considers the involvement of all physicians and staff in the planning and ongoing monitoring of the project as critical to its success. “We celebrated when we got the grant and we highlighted the winners of friendly competitions between the teams by publicizing monthly immunization numbers.” Dr. Dickson stressed how critical this regular posting of the data was to allowing individual physicians to continually improve their own performances.

Not surprisingly, this focus on accountability resulted in monthly provider performance data that reflected a significant rise in vaccination rates for patients seen at the FMC. Other methods for providing senior immunizations—the walk-in clinics, drive-up vaccinations and home visits—offered initial promise but ultimately delivered mixed results.

“Vaccine provided during a walk-in clinic during regular office hours was our second most popular method with patients and gave us our second-highest (20 percent) rate of vaccinations,” said Dr. Dickson. But the attempt to provide vaccines during a drive-up, after hours clinic fell flat. “We utilized a Saturday morning for this event and had poor response from patients,” admitted Dr. Dickson. She identified several factors that fed into this, including bad weather on the selected date, the availability of appointments and other options during regular clinic hours, and easy after-hour access to vaccines at locations such as CVS and Walgreen’s.

The portion of the project involving vaccinations provided during a home visit could not be successfully implemented. “It was a great mission and we thought, ‘This will be great! They shouldn’t be getting out of their homes in this weather anyway – they’ll fall and break a hip!’ But we were surprised when many patients didn’t want us to come into their homes! Further, we hadn’t completely thought

through how we were going to implement this—how we were going to create a schedule, insure the patient(s) would be home, have the right vaccines with us, verify insurance status—all those things. So, with patients not clamoring for it, we just decided, ‘It’s late enough in the season...let’s figure all this out and try it next year.’” Dr. Dickson maintains that this option has value but, “We need to have a system for doing it.”

As the project drew to a close, it became clear that patient interaction with physicians and nurses during scheduled in-office visits (with added support from the mailed reminder cards) had the biggest impact on project results. All of the physicians in the office vaccinated more patients against flu and pneumonia disease in the 2015 season than they had the year prior, achieving a 34 percent increase in influenza vaccination rates and a 10 percent increase in pneumococcal vaccination rates.

In Dr. Dickson’s view, the project allowed the resident physicians to develop best practices in promoting immunizations and to have a real impact on patient care through their focused effort. “Sometimes in residency, you feel you don’t have a lot of control—you get dumped into a system that works a certain way. We wanted the residents to see that they *can* change the process by building, collaborating, and motivating towards a common goal.”

To illustrate, she cited a recent encounter at the FMC. “A patient who just happened to be at the weigh-in station overheard a resident physician commenting that they really hadn’t had much flu or flu complications/hospitalizations this year. Even though he wasn’t her personal physician, the patient chimed in with, ‘That’s probably because you’ve been vaccinating everyone. Maybe you guys really *are* making a difference!’”