



Utilizing the EMR to Guide QI Initiatives in Primary Care Settings in South Texas

**South Central
Area Health
Education Center**

The Team

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- Sponsor Department:
 - South Texas AHEC Program & Department of Family and Community Medicine



Aim Statement

The aim of this project is to improve the process of documenting in the Immunization Section of the Outpatient EMR for patients age 60 and over at two South Texas clinics by January 10, 2014. Improvement goal target is 30% over baseline level of each site.

The process begins when the patient reports for a clinic visit and ends when the documentation for that visit is entered in the EMR. This is important to improve because timely immunization of the targeted population is a major public health safety concern.

Project Milestones

- Team Created July 2013
- AIM statement created September 2013
- Weekly Team Meetings Sept – Jan 2014
- Background Data, Brainstorm Sessions, Workflow and Fishbone Analyses September 2013
- Interventions Implemented Oct – Nov 2013
- Data Analysis December 2013
- CS&E Presentation January 2014



What the “heck” is AHEC?

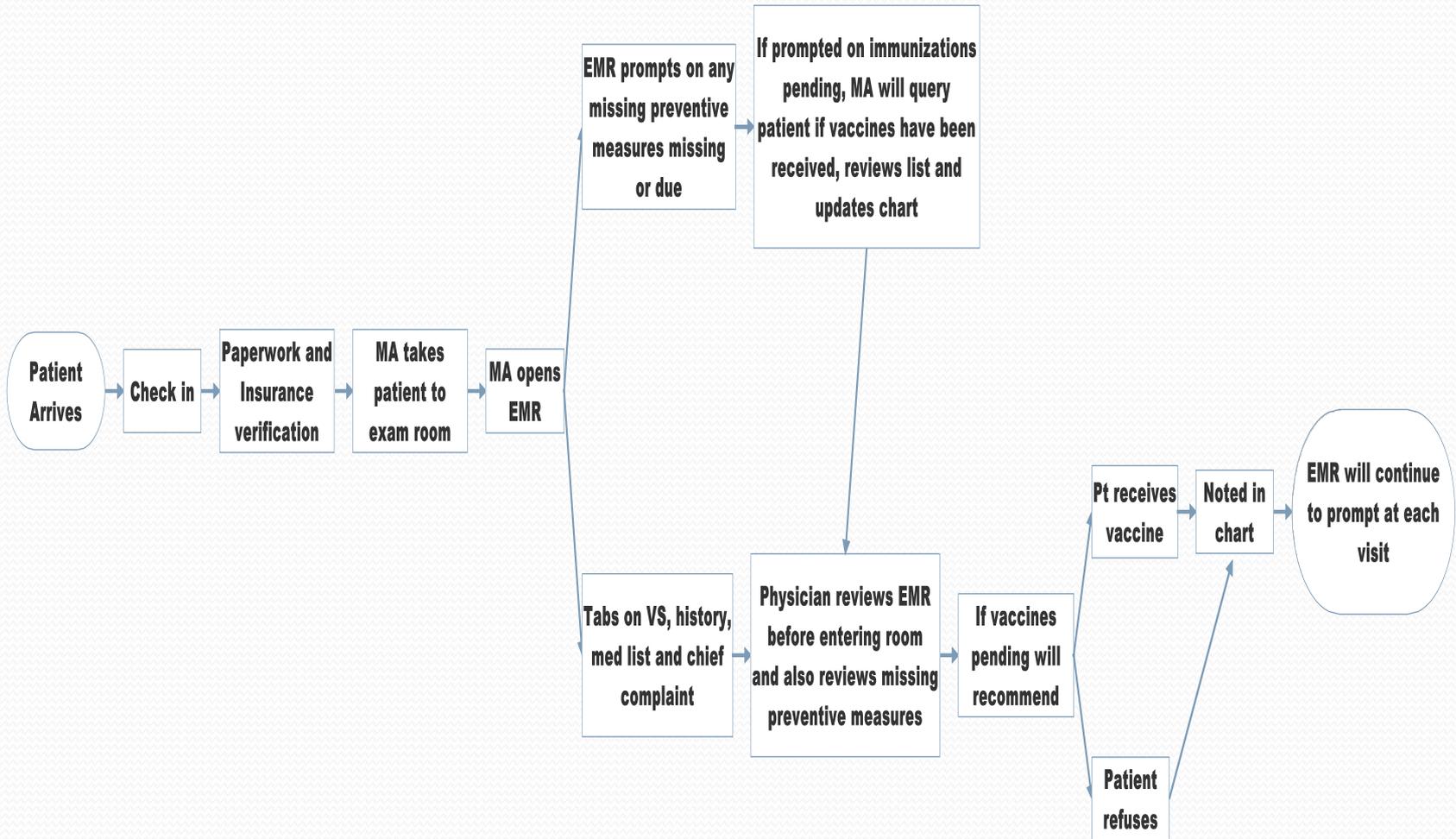
Area Health Education Center

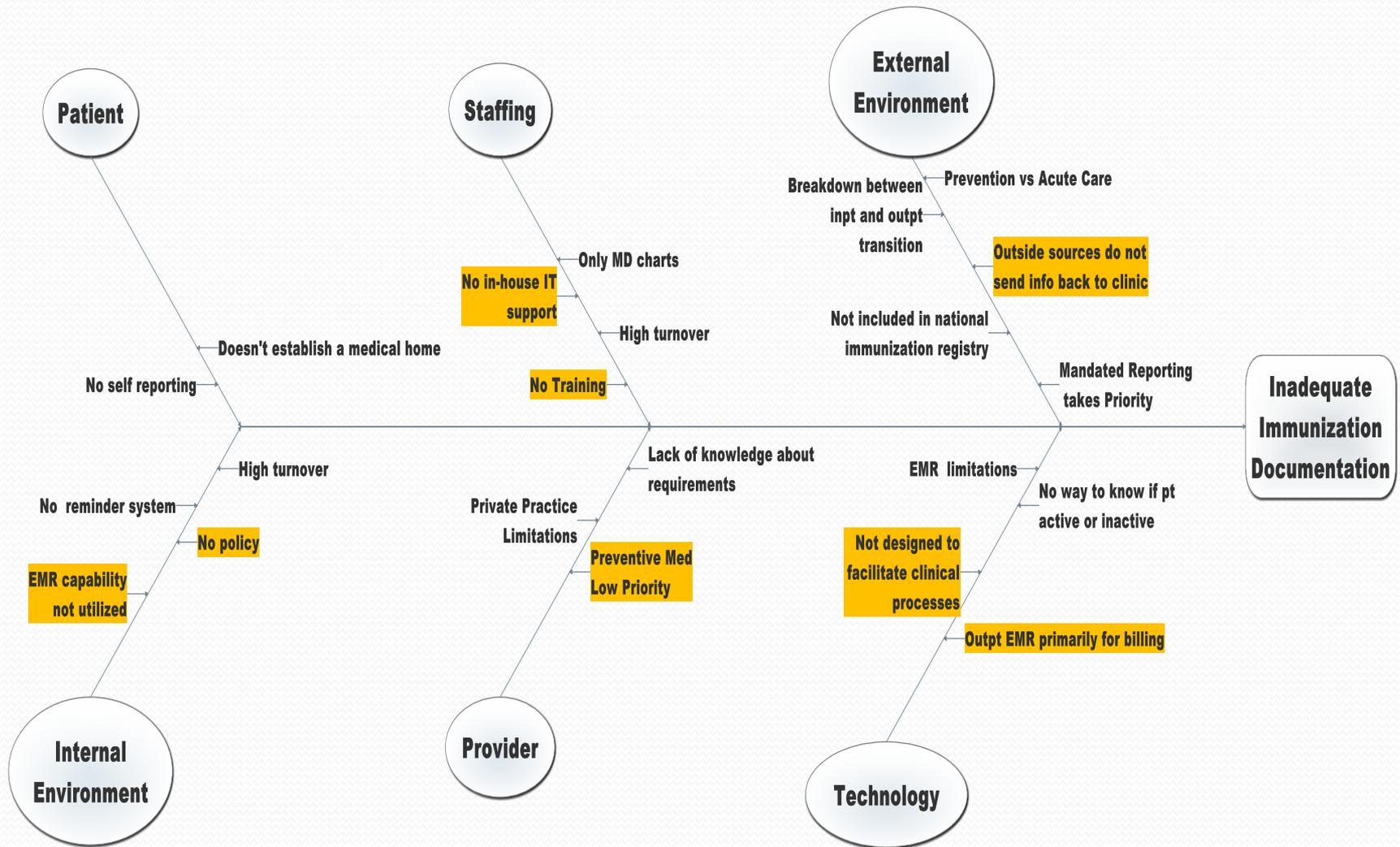
- Since 1996 the South Central AHEC has worked with area school districts, colleges, universities and regional community based partners to increase the capacity of communities to address the unmet and disparate health needs of their citizens .
- The mission of the South Central AHEC is to improve access to quality health care through facilitation of community-based health professionals training programs and initiatives.
- Of particular concern is the health of the population 60 years and older who reside in the rural and underserved areas of AHEC service area.
- Immunization for illnesses such as the flu, pneumonia and shingles is one means of assuring the long term health of this group.
- To this end, it is critical that the information documented in the EMR immunization section be accurate and current.

Project Sites

- Two underserved sites were selected for the project.
- 1. Pearsall, Texas (rural): A private practice. There is one physician and his sister is the Office Manager. As is common in many small rural towns, office staff turnover is high because the younger citizens often move to larger towns. It is not uncommon for the physician to be the only individual who maintains the data in the EMR.
- 2. Corpus Christi, Texas (underserved)- Amistad Community Health Center, an FQHC, was founded in 2005 as a non-profit, faith-based organization aimed to address the growing number of community members lacking health insurance, a primary care provider, and a place to receive affordable, quality medical attention.

Clinic Flow





Project Activities	August	September	October	November	December	January
Create the chart Audit tool			X			
Baseline Data Chart Abstraction			X			
Baseline Chart Abstraction Time Frame	X	X				
Clinic Report Preparation			X			
Tool Box Preparation			X			
Clinic Members Training				X		
Clinic Report Delivered				X		
Tool Box Implementation				X		
Bi-Weekly Performance Reports				X	X	
Final Chart Abstraction				X	X	X
Clinic Report Preparation						X
Final Clinic Report						X

Screening Tool

Clinic ID _____ Chart Reviewer: _____
 Patient ID(MRN): _____ Chart Review Date(mm/dd/yy): _____

Eligibility Criteria

Patient's age at last office visit _____ Date of last office visit (mm/dd/yy) _____
 Yes* No Is the patient at least 60 years of age?
 Yes* No Has the patient been established in your practice for at least 12 months?
 *Response must =YES for patient chart to be eligible

Demographics

1. Gender	<input type="checkbox"/> Male	<input type="checkbox"/> Female		
2. Ethnicity or race?	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black	<input type="checkbox"/> Asian	<input type="checkbox"/> White
3. Zip code:	4. Birthdate (mm/dd/yy):			
5. Does the patient have insurance?	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
6. If yes, what type of payment plan?	<input type="checkbox"/> Medicaid	<input type="checkbox"/> Private	<input type="checkbox"/> Other	
	<input type="checkbox"/> Medicare	<input type="checkbox"/> Self-Pay		

Immunization Status

Zoster	During the past 12 months, did the vaccine was recommended to this patient? Yes <input type="checkbox"/> No <input type="checkbox"/>
	Received: Yes <input type="checkbox"/> Date _____ Where: At the clinic <input type="checkbox"/> Outside <input type="checkbox"/> Documented <input type="checkbox"/>
	Declined: Yes <input type="checkbox"/> Date _____ Why: _____
	Contraindication: Yes <input type="checkbox"/> Date _____ Why: _____
	Area of EMR where information was document: _____

Pneumovax	During the past 12 months, did the vaccine was recommended to this patient? Yes <input type="checkbox"/> No <input type="checkbox"/>
	Received: Yes <input type="checkbox"/> Date _____ Where: At the clinic <input type="checkbox"/> Outside <input type="checkbox"/> Documented <input type="checkbox"/>
	Declined: Yes <input type="checkbox"/> Date _____ Why: _____
	Contraindication: Yes <input type="checkbox"/> Date _____ Why: _____
	Area of EMR where information was document: _____

Factors Contributing to Lack of Immunization

If one or more of the above vaccines NOT received, check which vaccine and the factor(s) applies

Zoster Pneumovax Immunization deferred due to illness or injury
 Zoster Pneumovax Immunization records missing or incomplete
 Zoster Pneumovax Insurance coverage or cost issues
 Zoster Pneumovax Patient uncertain of immunization status
 Zoster Pneumovax Vaccine not available in practice
 Zoster Pneumovax Vaccine not considered indicated for this patient at this time
 Zoster Pneumovax Other factors contributing to this patient's lack of immunization: (please describe)

Critical Elements: 12 items

- Gender
- Ethnicity
- Insurance
- Type of Insurance
- Immunization Status for both Zoster and Pneumovax
- Was vaccine recommended to patient, Yes or No
- Received, if so When & Where?
- If Declined, reason why?
- Where there contraindications, if so, what?
- Area of EMR where immunizations documented

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Screening Tool

Clinic ID: _____ Chart Reviewer: _____
 Patient ID(MRN): _____ Chart Review Date(mm/dd/yy): _____

Eligibility Criteria

_____ Patient's age at last office visit _____ Date of last office visit (mm/dd/yy)
 ___ Yes* ___ No Is the patient at least 60 years of age?
 ___ Yes* ___ No Has the patient been established in your practice for at least 12 months?
***Response must =YES for patient chart to be eligible**

Demographics

1 point	1. Gender	<input type="checkbox"/> Male	<input type="checkbox"/> Female
	2. Ethnicity or race?	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black <input type="checkbox"/> Asian <input type="checkbox"/> White
1 point	3. Zip code:	4. Birthdate (mm/dd/yy):	
1 point	5. Does the patient have insurance?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
1 point	6. If yes, what type of payment plan?	<input type="checkbox"/> Medicaid	<input type="checkbox"/> Private <input type="checkbox"/> Other
		<input type="checkbox"/> Medicare	<input type="checkbox"/> Self-Pay <input type="checkbox"/> None

Immunization Status

1 point → During the past 12 months, did the vaccine was recommended to this patient? Yes _____ No _____

Zoster

1 point for each answer in one of the 3 options

Received: Yes _____ Date _____ Where: At the clinic _____ Outside _____ Documented _____

Declined: Yes _____ Date _____ Why: _____

Contraindication: Yes _____ Date _____ Why: _____

Area in the EMR where this information was found _____

1 point → During the past 12 months, did the vaccine was recommended to this patient? Yes _____ No _____

Pneumovax

1 point for each answer in one of the 3 options

Received: Yes _____ Date _____ Where: At the clinic _____ Outside _____ Documented _____

Declined: Yes _____ Date _____ Why: _____

Contraindication: Yes _____ Date _____ Why: _____

Area in the EMR where this information was found _____

If one or more of the above vaccines NOT received, check which vaccine and the factor(s) applies

Total 12 points	_____ Zoster _____ Pneumovax	Immunization deferred due to illness or injury
	_____ Zoster _____ Pneumovax	Immunization records missing or incomplete
	_____ Zoster _____ Pneumovax	Insurance coverage or cost issues
	_____ Zoster _____ Pneumovax	Patient uncertain of immunization status
	_____ Zoster _____ Pneumovax	Vaccine not available in practice
	_____ Zoster _____ Pneumovax	Vaccine not considered indicated for this patient at this time
	_____ Zoster _____ Pneumovax	Other factors contributing to this patient's lack of immunization: (please describe)

Sample of chart audit data collection tool

• Important Elements in the EMR

- From chart 1 = _____
- From chart 2 = _____
- From chart 3 = _____
- From chart 4 = _____
- From chart 5 = _____
- From chart 6 = _____
- From chart 7 = _____
- From chart 8 = _____
- From chart 9 = _____
- From chart 10 = _____

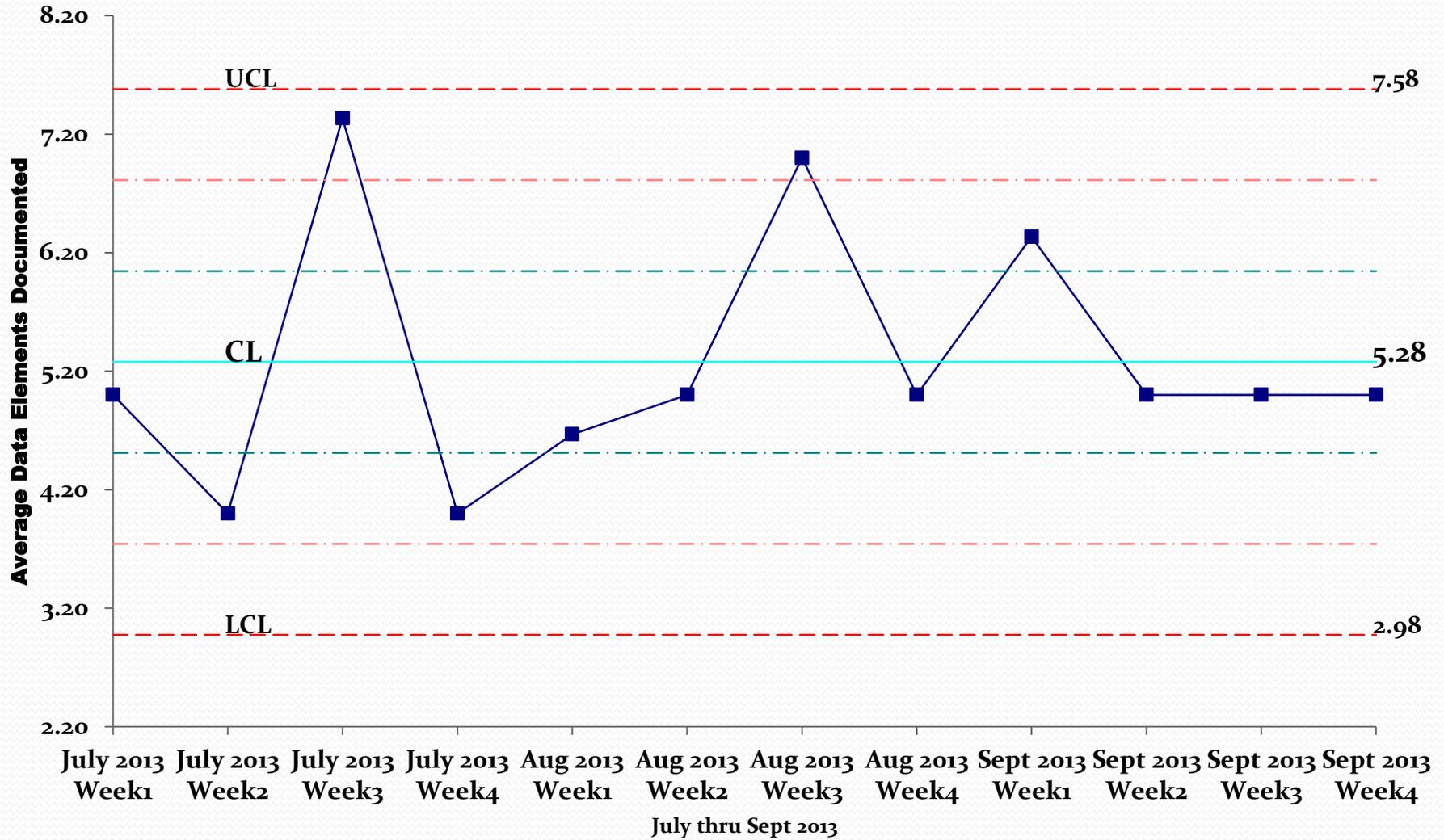
• Important Elements in the EMR

- From chart 11 = _____
- From chart 12 = _____
- From chart 13 = _____
- From chart 14 = _____
- From chart 15 = _____
- From chart 16 = _____
- From chart 17 = _____
- From chart 18 = _____
- From chart 19 = _____
- From chart 20 = _____

Pearsall Clinic Pre-Intervention Data

EMR Immunization Section

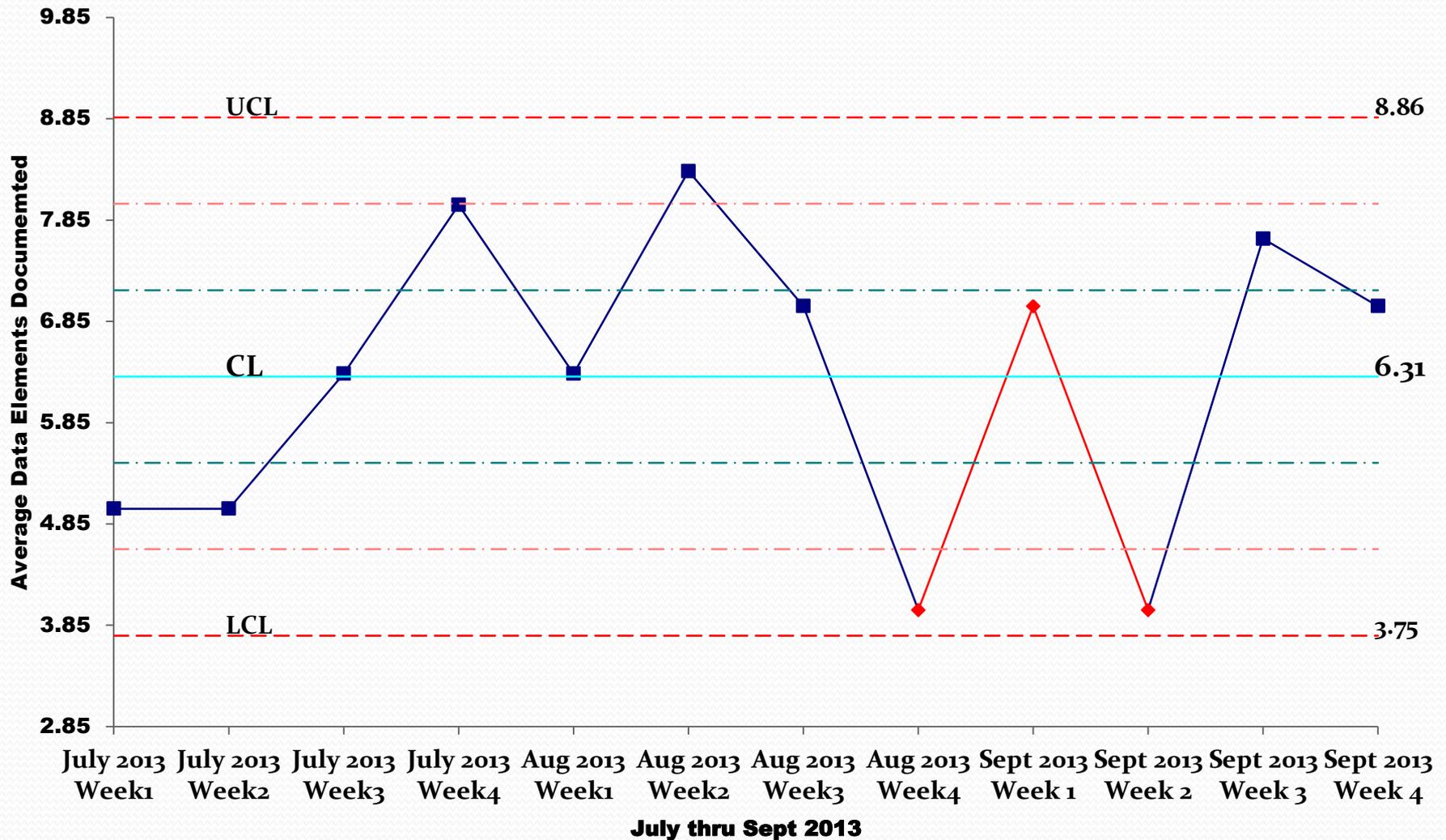
Critical Data Elements Documented



Corpus Christi Clinic Pre-Intervention Data

EMR Immunization Section

Critical Data Elements Documented



Plan/Do

Intervention

- Training session to entire staff on importance of immunization/prevention
- Small training session for MAs to allow discussion, ideas and feedback for what would work best.
- Provide a tool kit to the staff with handouts, flyers and information sheets on the immunizations for patients over 60 years.
- Commitment from staff to promote prevention/immunizations
- Follow up with staff to review process and progress

Implementation

- Change of EMR prompt to include Zoster and Pneumovax
- Staff consent that MAs will document in the immunization tab.
- Provided tools will be implemented in patient rooms and waiting areas
- Commitment from staff to promote prevention/immunizations
- Commitment to show improvement by next chart audit.

Are you 60 Plus? You May Be Eligible



- **Shingles** (Zoster) Vaccine: once, only for adults over 60 yrs.
- **Pneumonia** (Pneumococcal) Vaccine: two if under 65 yrs., one if over 65 yrs.
- **Flu** (Influenza) Vaccine: every year

**Not sure? Ask us and get up to date!!
It may save your life!!**





Are You 60 Plus?



Flu

Influenza Vaccine:
every year

Shingles

Zoster Vaccine:
once, only for adults over 60 yrs

Pneumonia

Pneumococcal Vaccine:
two if under 65 yrs;
one if over 65 yrs

Tetanus & Whooping Cough

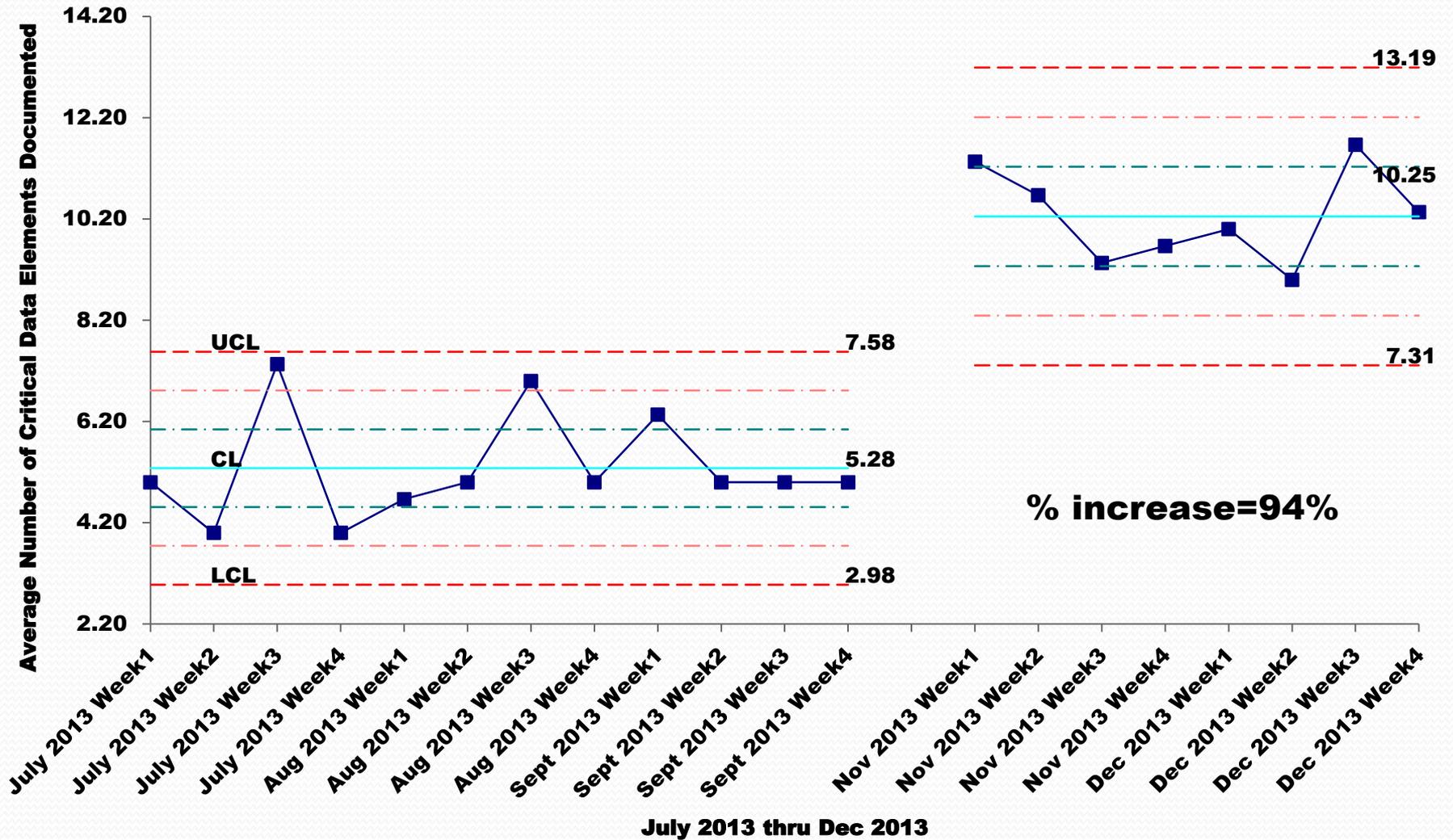
Tdap Vaccine:
One Tdap, then TD booster
every 10 years

Let us know if you have any questions, or are due for an immunization.

Pearsall Clinic Pre and Post Intervention Data

EMR Immunization Tab

Critical Data Elements Documented

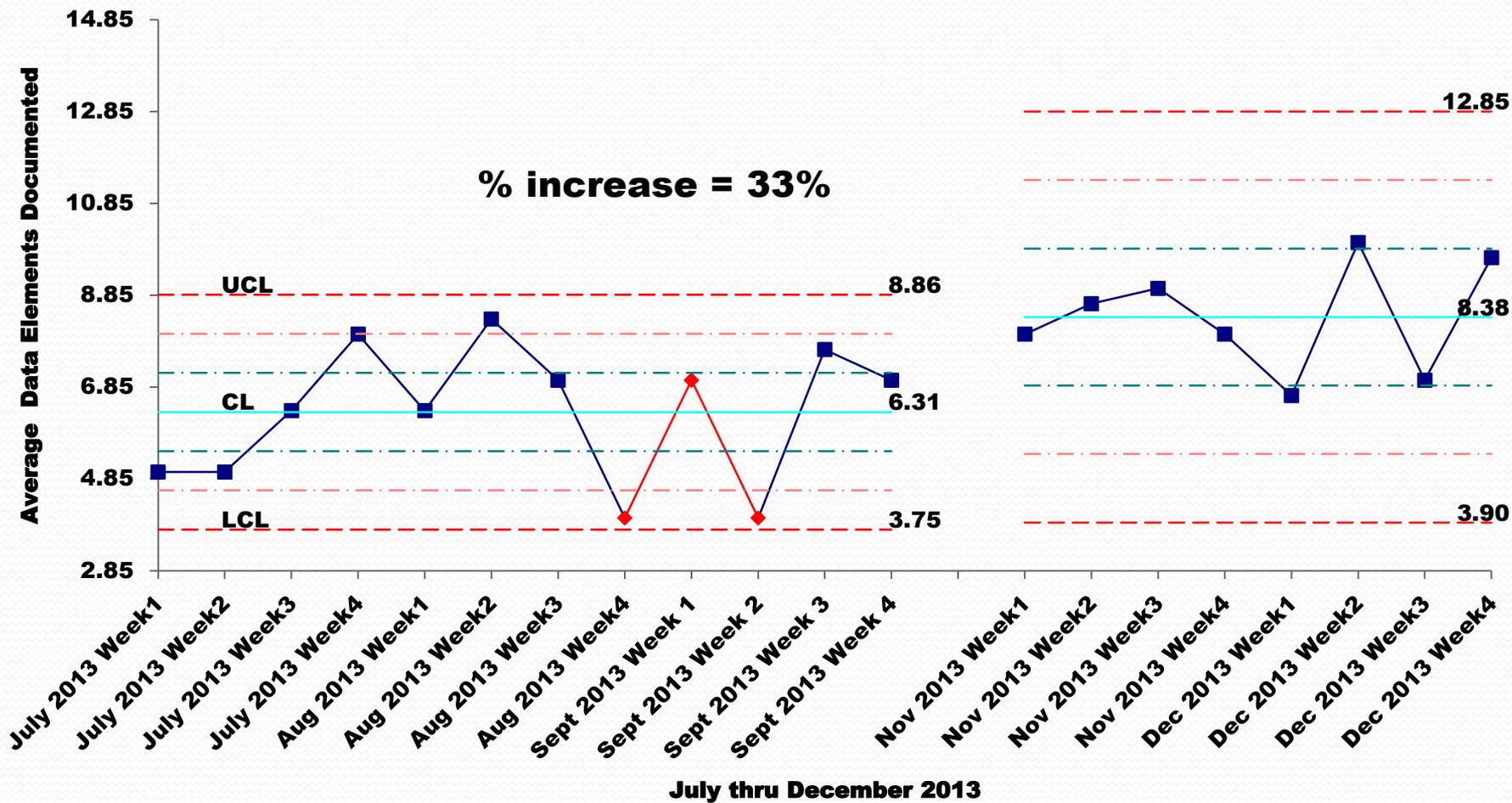


Corpus Christi Clinic

Pre and Post Intervention Data

EMR Immunization Section

Critical Data Elements Documented



Healthcare Costs (ROI)

Zoster

- No Insurance = \$250
- With Insurance = \$60 co-pay
- ER Visit = Average Cost \$1365 per visit

- 100 patients x \$1365 = \$136,500 versus
- 100 patients x \$250 = \$25,000

Total Savings: \$111, 500

Pneumovax

- No Insurance = \$25
- With Insurance = Free
- ER Visit = Average Cost \$1365 per visit

- 100 patients x \$1365 = \$136,500 versus
- 100 patients x \$25 = \$2,500

Total Savings: \$134,000

An ounce of prevention is worth a pound of cure...Benjamin Franklin

- HEB pharmacy called and asked, “What are you guys doing over there? We have had a big increase in immunization requests, especially Zoster.”
- “ You have given us focus, we were totally unaware of this issue before. You are a true change agent for our practice.”
- “ We just didn’t think it was that important.”
- “This project allowed us to learn how to maximize the features of the EMR for prevention.”

Project ROI

Net Return

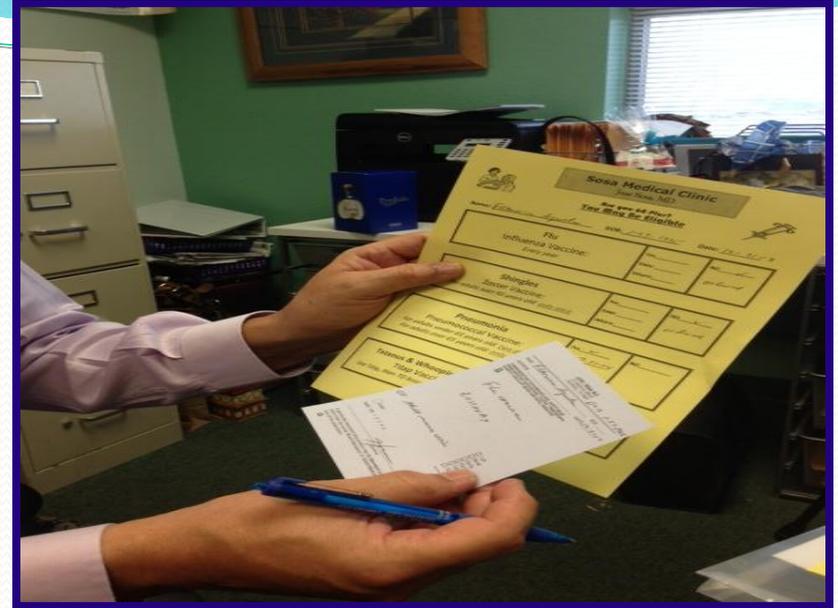
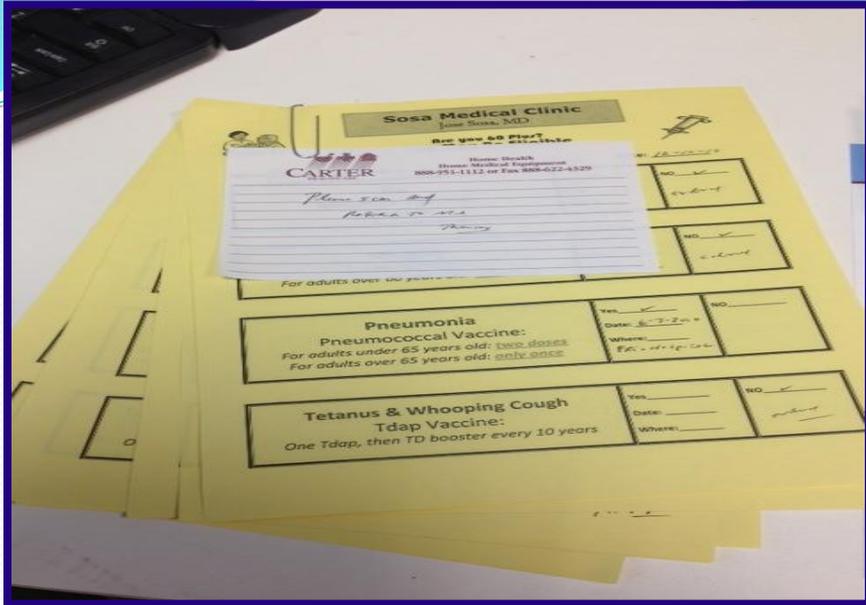
- Total Savings = \$245,500

Project Cost

- Materials, Supplies, Travel, Telephone = \$500.00

ROI Index: 491





Staff commits to promote immunizations as part of preventative care



**iMuchas
Gracias!**



*Educating for Quality Improvement & Patient
Safety*