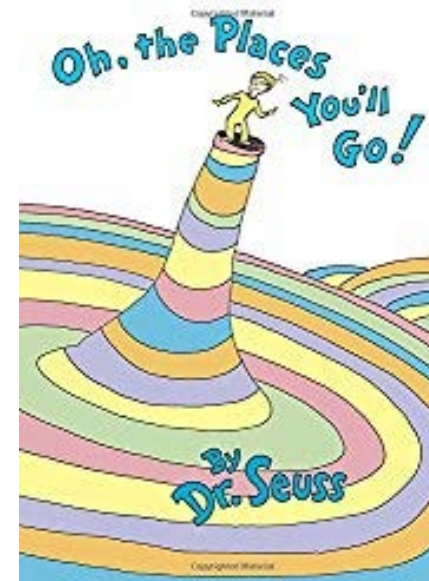




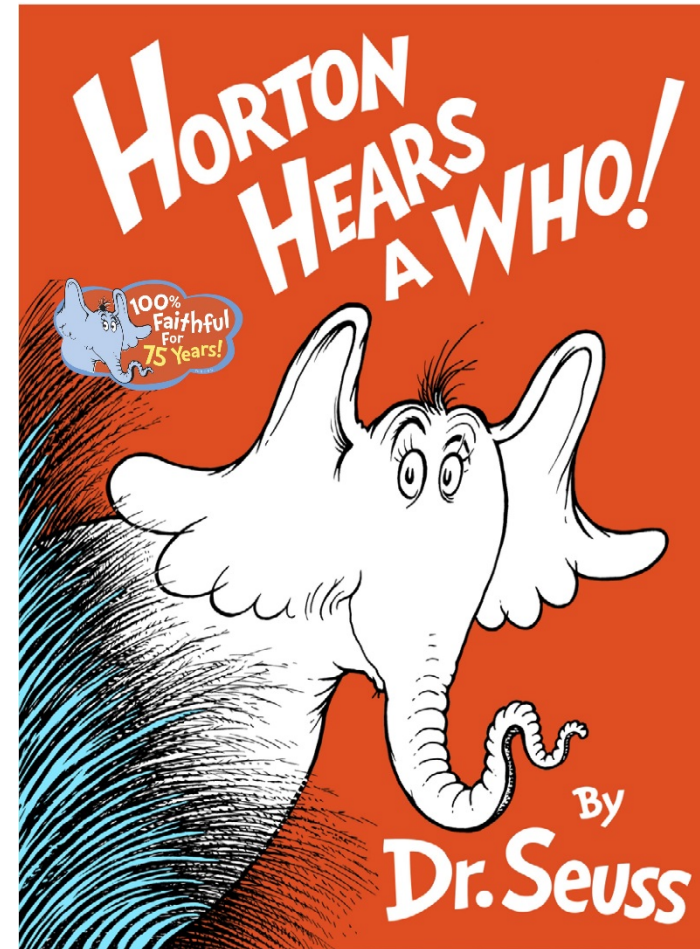
Pnowing Your Pneumo Vaccination Info and Other Things You Can Do with an IIS



Bridget Ahrens MPH, Nicholas Pain MS, Cody Rock MS
American Immunization Registry Association Conference
Chicago IL, April 2017

So I Did a Literature Search...

When you have a Registry
You have the 
To Immunization Scrutiny
You know Who's had a 
And Who's still behind
Who's had single antigen
Who's had combined...



**Assessing the Data You Get is
Just Smart
Knowing your Pneumo
Is One Place to Start!**

For more on this, see AIRA's Ongoing Monitoring and Evaluation of Data Submissions to IIS.

Vermont Details

- We are the 14th state.
- Population 626,042.
- Our IIS is the “IMR.”
- 85% of known immunizers report to the IMR.
- 59% of known immunizers send HL7 messages.
- In 2016, we added 1,237,644 new immunizations to the IMR.



Why Immunize Vermonters Against Pneumococcal Disease?

- Pneumonia is one of the top 10 causes of death in older adults.
- Some pneumococcal organisms have become resistant to one or many antibiotics – so prevention is important.
- CAPIta study 2014 found 75% efficacy for PCV13 serotype IPD in persons over 65 years.



Pneumococcal Vaccines

- Protect against disease caused by *Streptococcus Pneumoniae* including infections in the lungs and the blood.
- Recommended for all adults 65+ years.
- Covered by Medicare Part B.
- Current recommendation (Sept 2015):
PCV13 followed by PPSV23 one year later

Why Look at this Data?

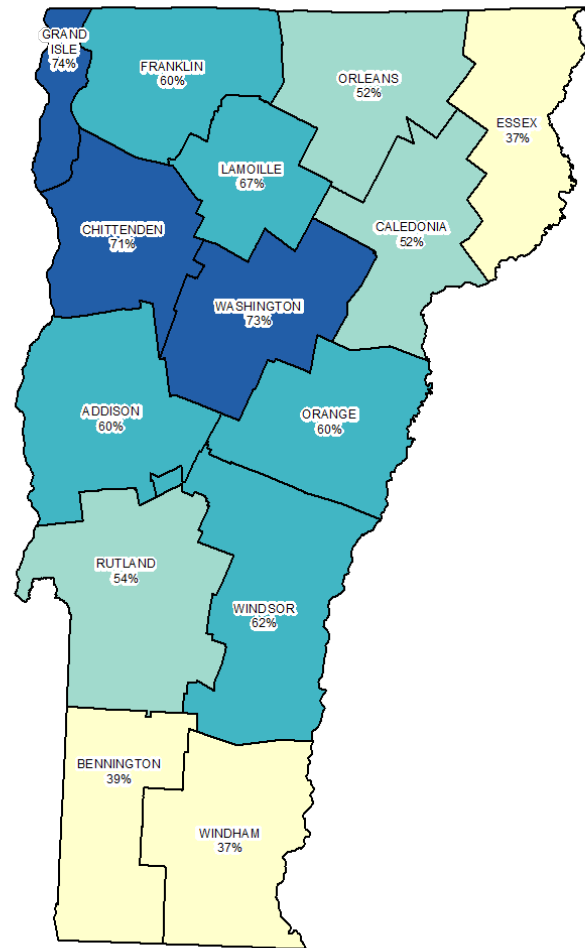
IIS Data Can Tell Us

- Who is giving Pneumococcal Immunizations
 - What types of organizations?
- What formulations are being reported
 - Does that align with best practices bases on ACIP Guidelines?
- Are administrators following schedule?
- Is the population being reached?
- Are there pockets of need?
- Is there duplication of effort?

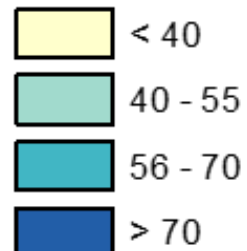
What To Do Next

- Consider whether findings suggest reporting issues, coding issues, or clinical reality.
- Talk with Immunization Program and others about strategies to improve coverage:
 - Resources?
 - Educational Outreach?

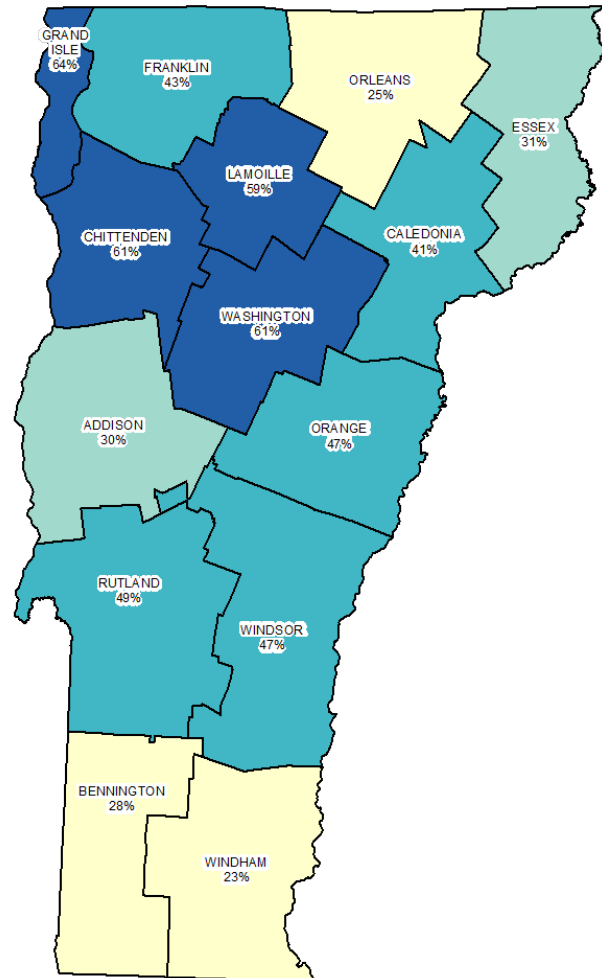
Vaccine Coverage: Any Pneumococcal



Percent of patients aged 65+ who have received at least one dose of any pneumococcal vaccine.



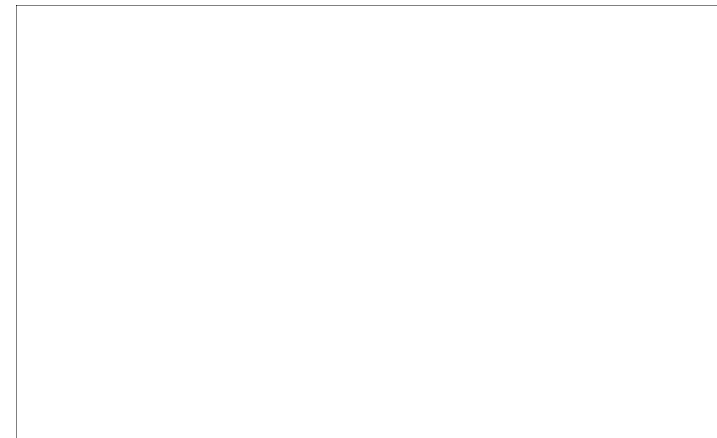
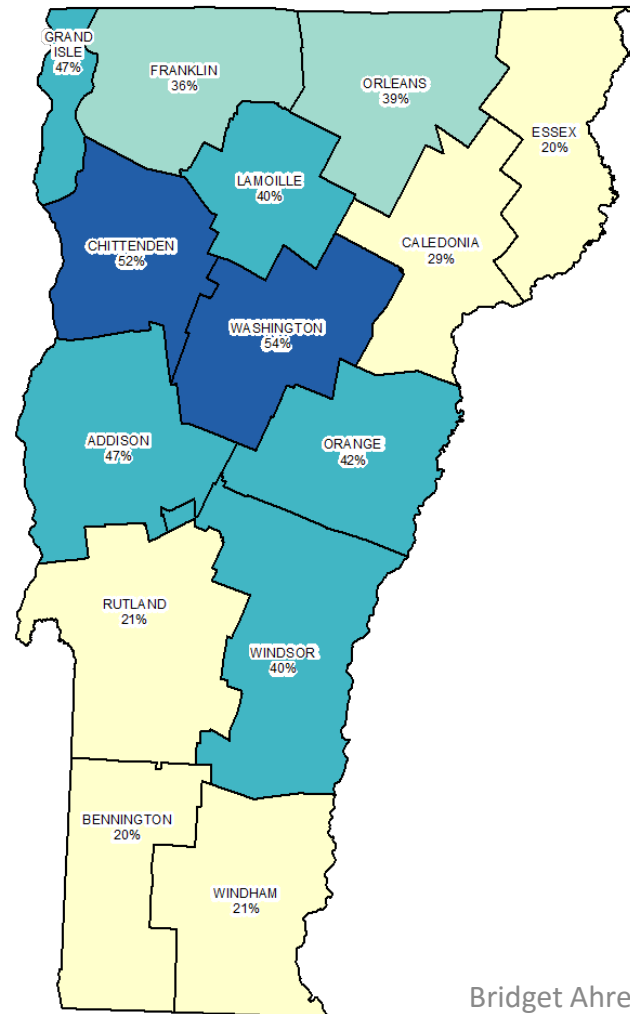
Vaccine Coverage: PPSV23



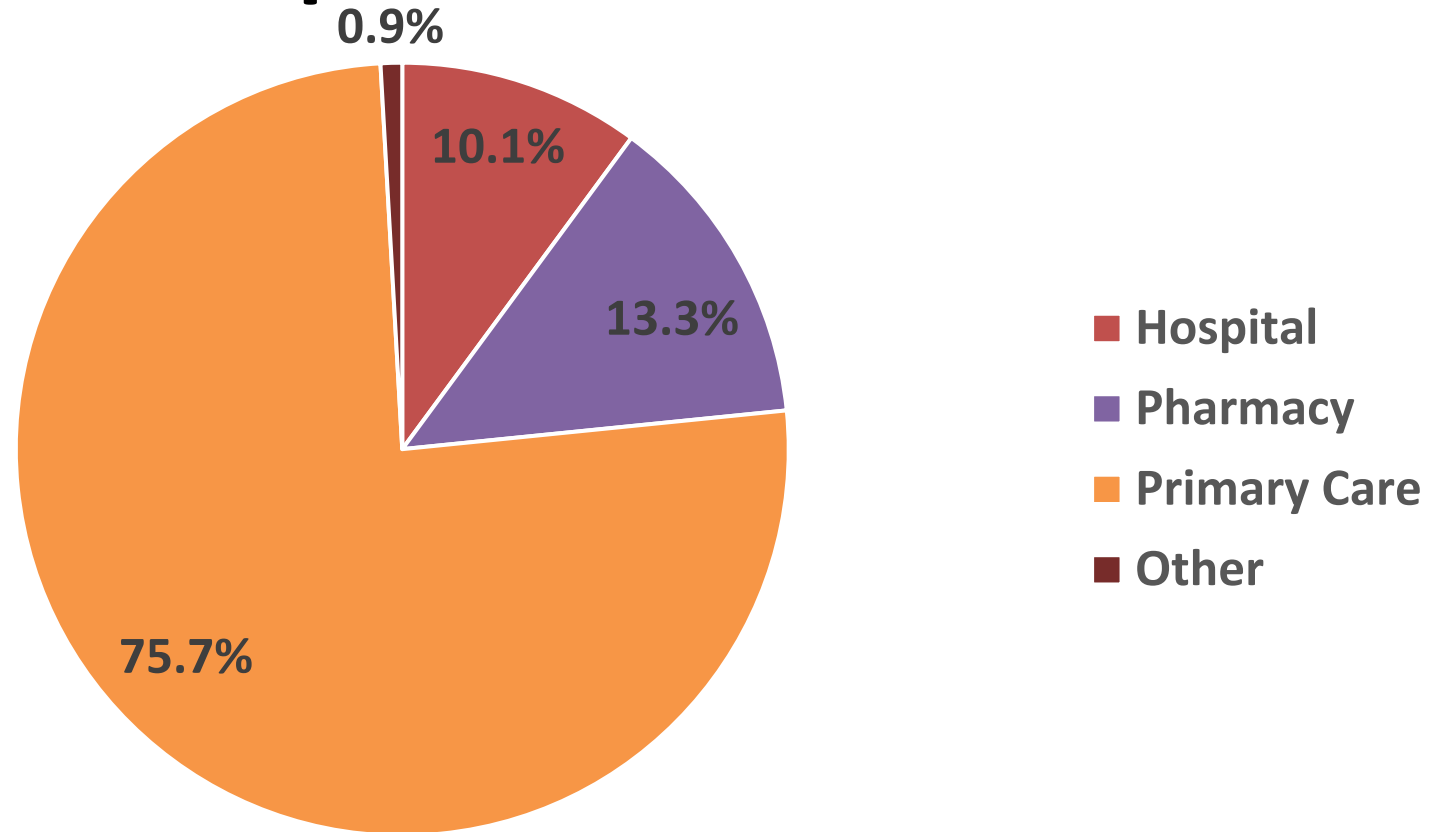
Percent of patients aged 65+ who have received at least one dose of the PPSV23 vaccine.



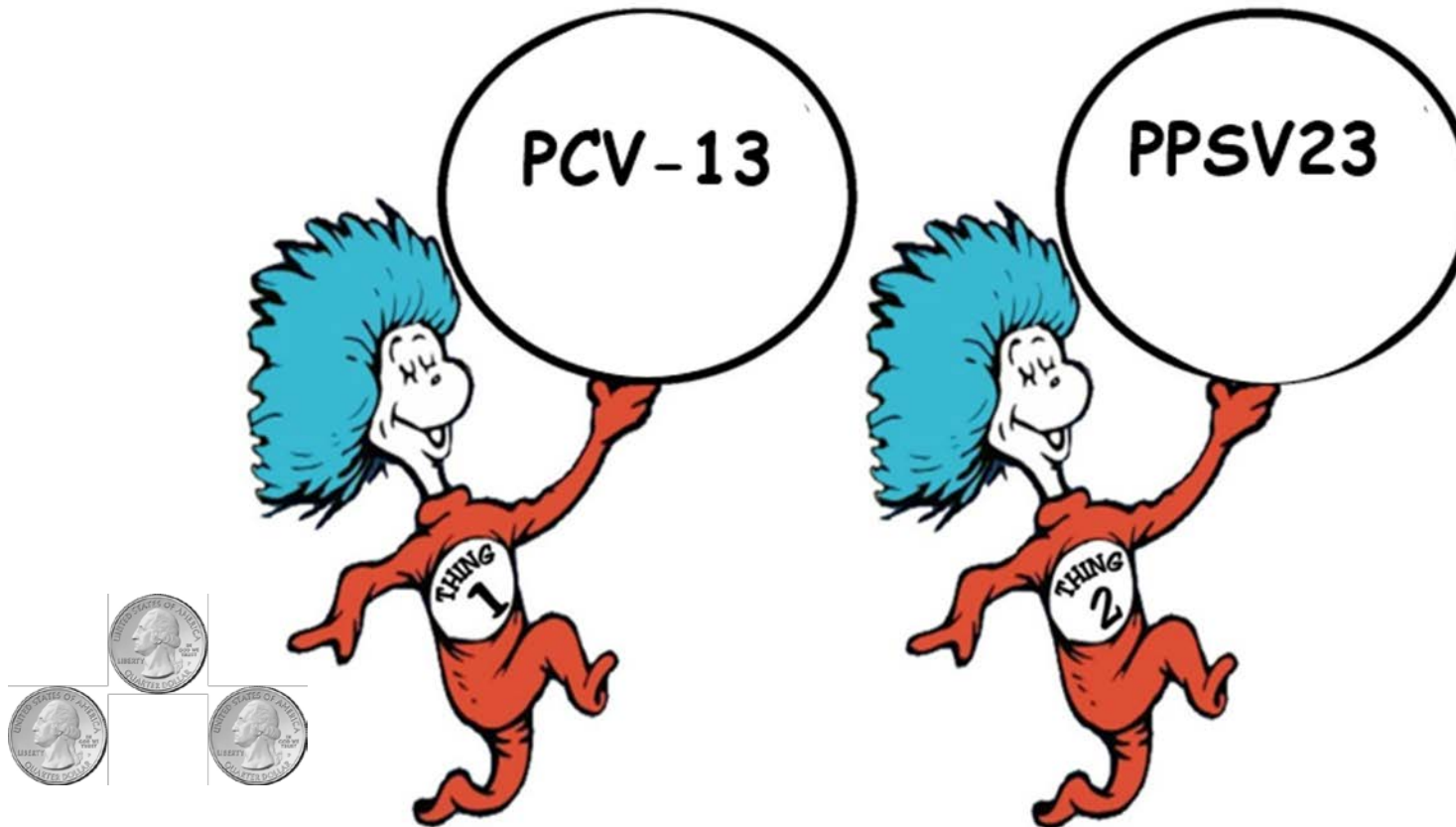
Vaccine Coverage: PCV 13



Source of Pneumococcal Immunizations to VT persons 65+ in 2016



From Sites Serving Older Adults, We Would Expect.....

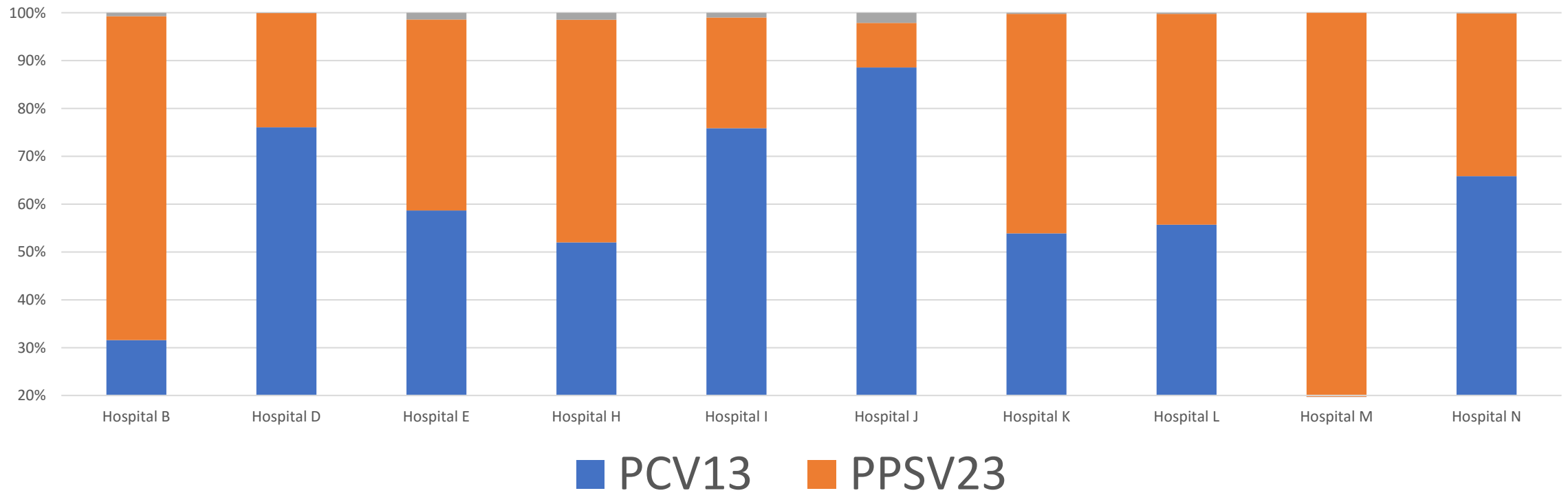


Hospitals and Pneumo

- Hospitals account for 10.1% of Pneumo administered to age 65+.
- Only 5 hospitals reported administering more than 50 pneumococcal imms in 2016.
- Of 15 reporting hospitals, 12 reported PCV13.
- Of 15 reporting hospitals, 14 reported PPSV23.

Hospital Administered Pneumo

Pneumo Vaccine Administered to VT Hospital Patients aged 65+ years in 2016

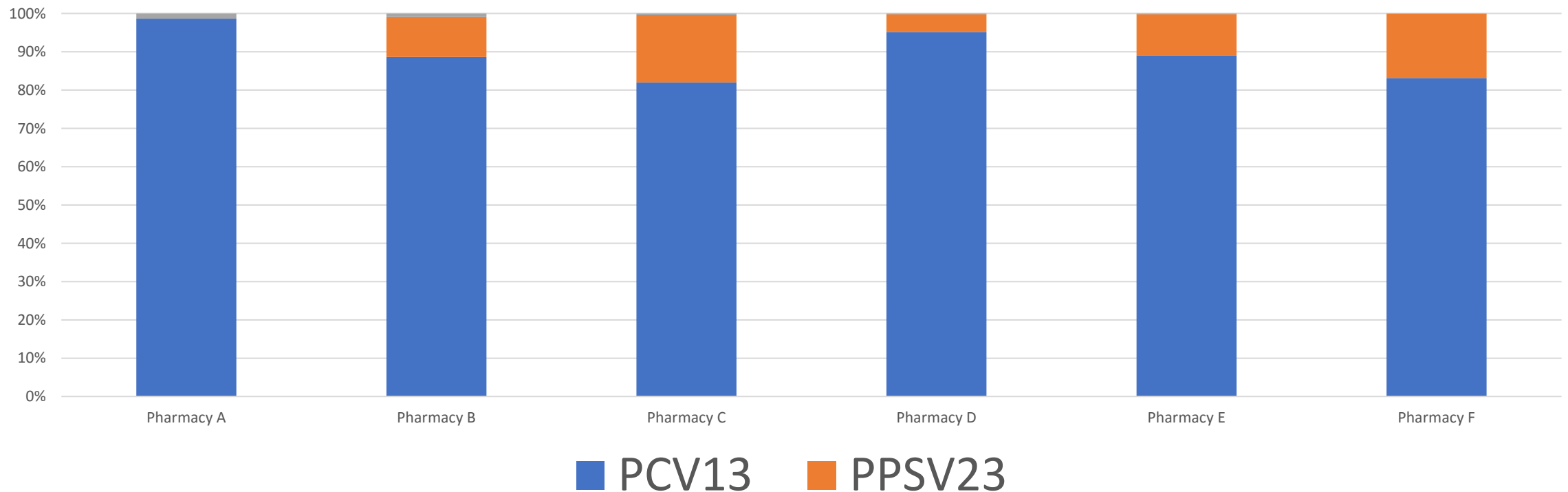


Pharmacies and Pneumo

- 13.3% of Pneumo administered to 65+ was reported from pharmacies.
- Pharmacy numbers are based on 5 chains and three independent pharmacies.
- Generally speaking, Pharmacies were administering PCV13

Pharmacy Administered Pneumo

Pneumococcal Vaccine Administered to Pharmacy Patients aged 65+ years in 2016

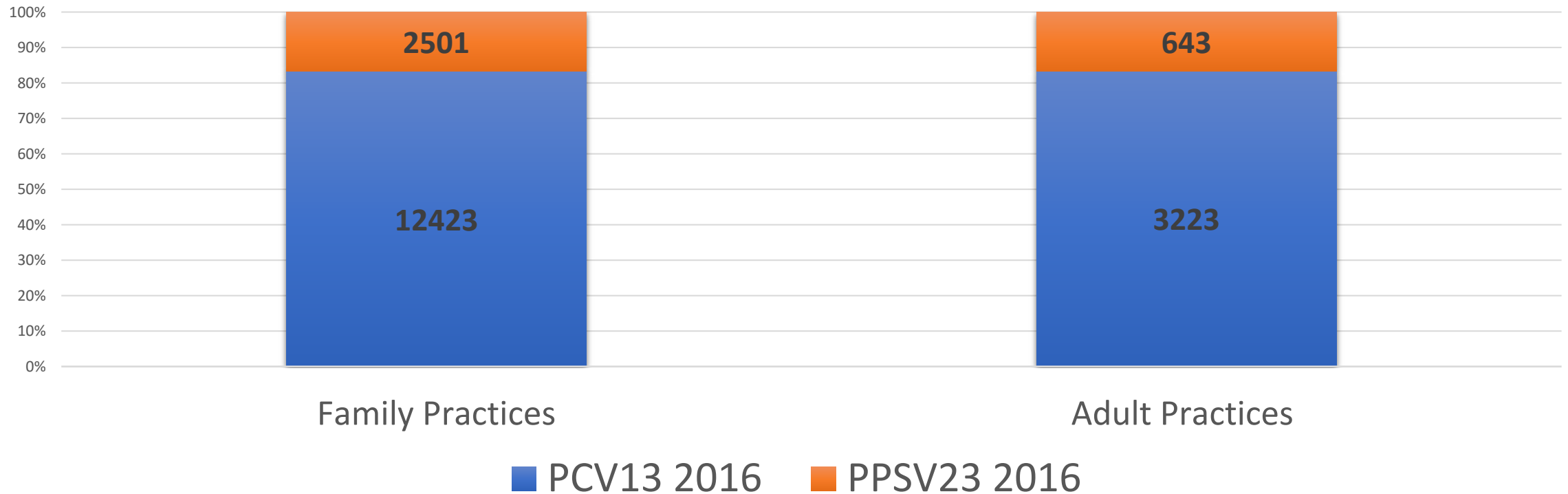


Primary Practices

- 75.7% of Pneumo administered to 65+ was reported by Primary Care practices.
- Family Practices reported 60.1% of all Pneumo doses to 65+.
- Adult Practices reported 15.6% of all Pneumo doses to 65+.

Primary Care Administered Pneumo

Pneumococcal Vaccine Administered to Primary Care Patients aged 65+ years in 2016



Primary Practice

- Of 86 Primary Practices reporting 20 or more Pneumo to 65+ in 2016:
- 96.5% reported both PCV13 and PPSV23.
- 72.1% reported **Expected Rate** PCV13.
- 12.8% gave more PPSV23 than PCV13.



Characteristics of Primary Practices Reporting **Expected Rate** of PCV13 to Persons 65+ Years

- 97% were VFA Participants
- 82% were Family Practices
- 60% were Hospital Owned



Influencing Factor: Vaccines for Adults Participation

- 82% of medical practices serving adults in VT participate in the VFA programs.
- Of the 18,990 pneumococcal immunizations administered in 2016 at Primary Practices **97%** came from practices participating in VFA.

Education issue?

Influencing Factor: Type of Practice

- 82% of pneumococcal immunizations administered to 65+ at primary practices came from FAMILY PRACTICES.
- Family practices serve adolescents and children, who require immunizations for school attendance.

Patient Population Issue?

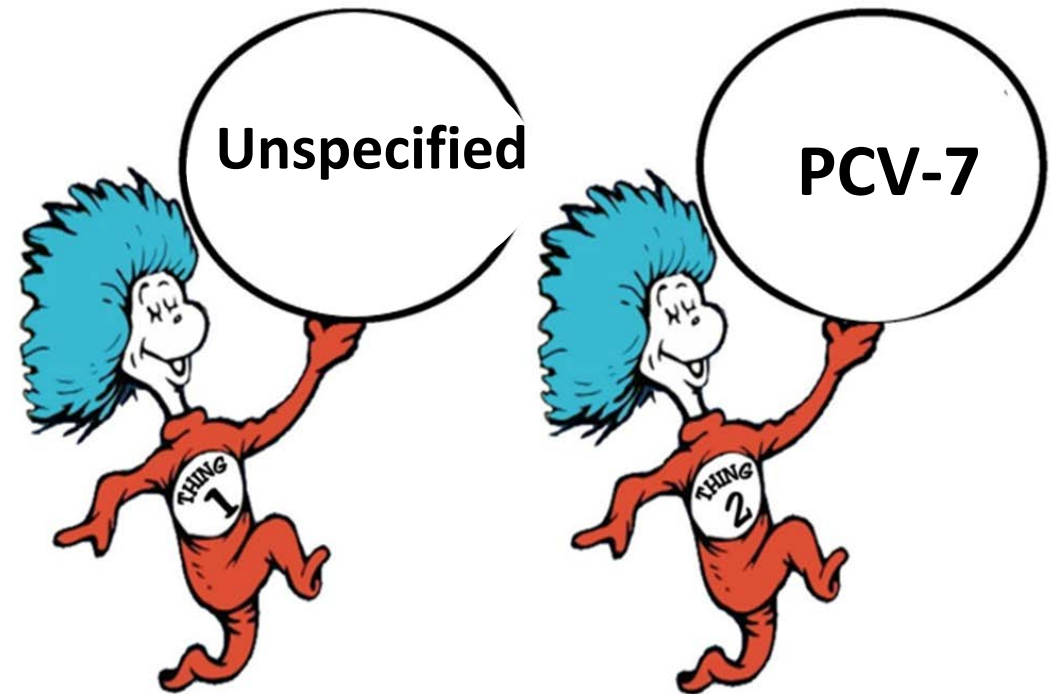
Influencing Factor: Practice Ownership

- Of 151 medical practices serving adults, 53 are hospital owned.
- 67.2% of pneumococcal immunizations administered to 65+ at primary practices came from HOSPITAL OWNED practices.

Resource issue?

Coding Issue?

- UNSPECIFIED Pneumo codes (90)
 - One hospital (14), 10 practices
 - Sporadic issue, not systemic
- OLD Pneumo codes (PCV7) (126)
 - One hospital (14), 7 practices
 - One practice accounted for 65%, other instances were sporadic



Now We Know. Now What?

Go Back to the Source

Hospital X 6 Week Post HL7 Live Report					December 3, 2015 through January 14, 2016			
Unexpected percentage of PPSV23 (CVX 33).								
Under 18			Over 65			Overall		
CVX Code	Count	Percent	CVX Code	Count	Percent	CVX Code	Count	Percent
			33	10	35.71%	33	10	35.71%
			133	1	3.57%	133	1	3.57%
			141	17	60.71%	141	17	60.71%
			Total	28	100.00%	Total	28	100.00%
Total Imms	Lot	Percent	Manufacturer	Percent	Site	Percent		
28	12	42.9%	28	100.0%	16	57.1%		
Total Imms	Route	Percent	Expiration Date	Percent	VFC Code	Percent		
28	12	42.9%	12	42.9%	28	100.0%		
Comparison of immunizations given between December 3 and January 14, current year and previous year.								
2015-16	28							
2014-15	7							



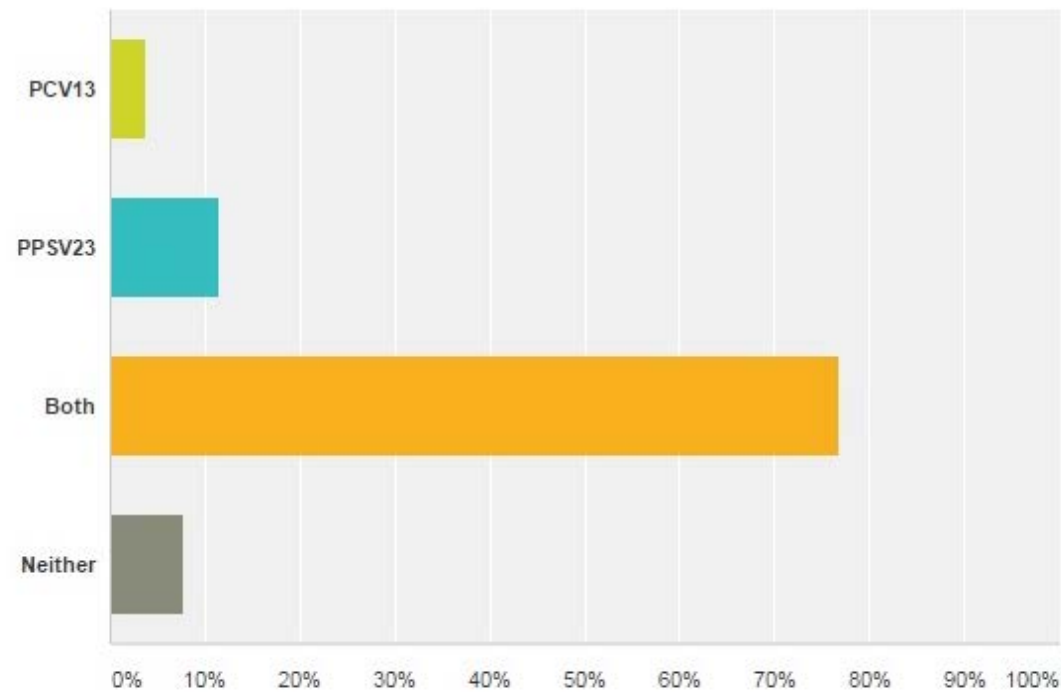
We Needed Answers

- Survey Monkey to assess Pneumo use in 65+
- Sent to 116 people:
 - Vaccine or office managers at Primary Practices
 - Quality Improvement managers at Hospitals
 - Pharmacists at Pharmacies
- Responses from 26 people (22%)

Surveyed Vaccine Administrators

For persons aged 65 and older in your care,
which of the following immunizations do
you offer?

Answered: 26 Skipped: 0



Conclusions

- Primary Practices are responsible for most Pneumo administered to 65+ in Vermont.
- ACIP guidelines not universally followed.
- Pharmacies and hospitals– should they play a bigger role?
- What is needed?
 - Education
 - Resources (purchase, storage)
 - Is there a role for VFA in communicating these issues?

Now That You Know....

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