HPV Vaccination in Kansas
Leveraging Information from Claims

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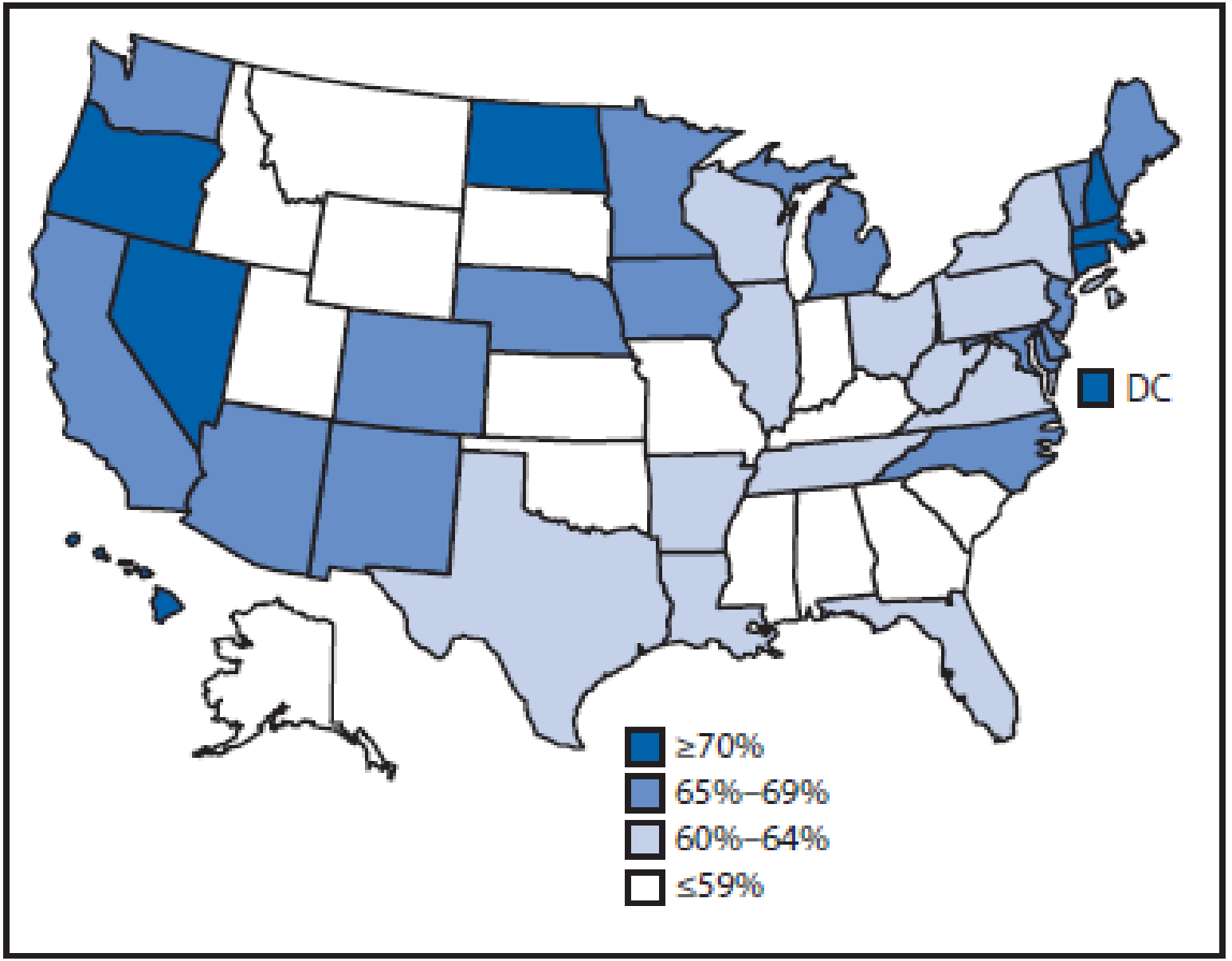
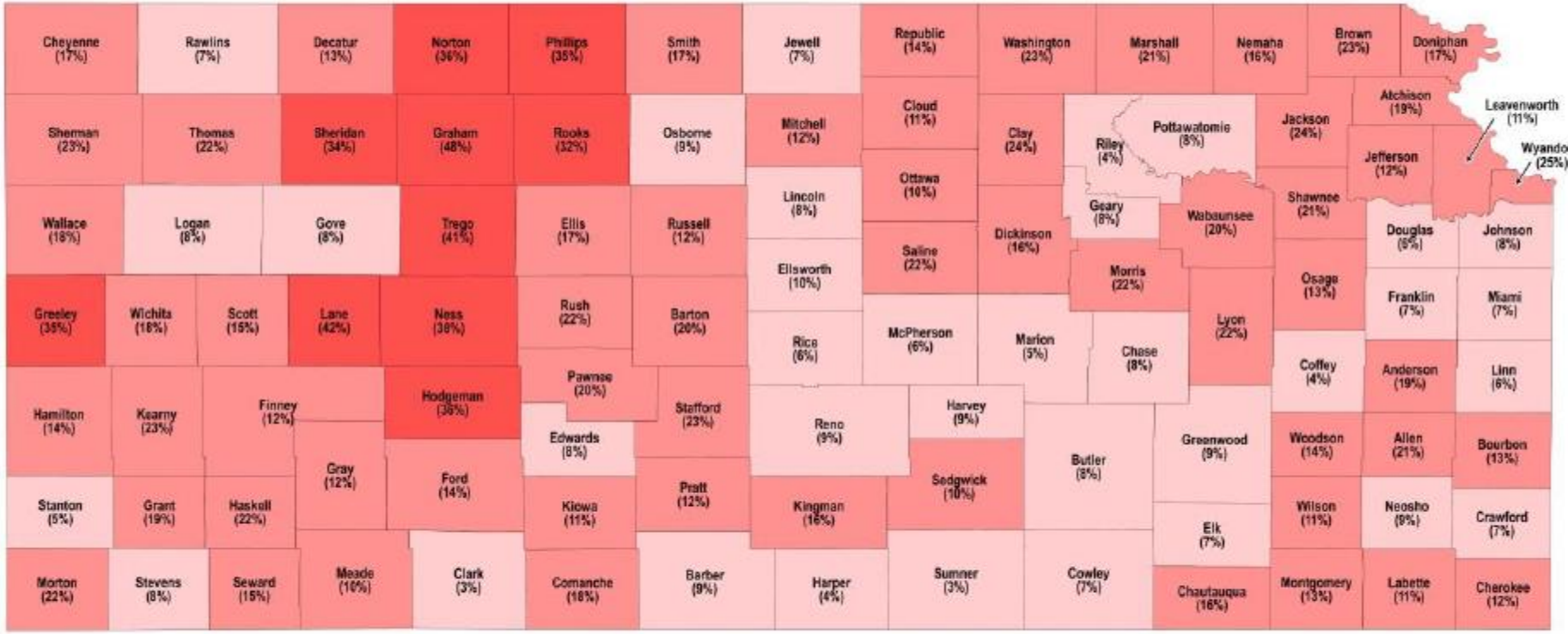
CURRENT SOURCES OF IMMUNIZATION DATA

FIGURE 3. Estimated vaccination coverage with ≥1 dose of HPV vaccine* among female adolescents aged 13–17 years† — National Immunization Survey-Teen,§ United States, 2015



Kansas HPV Vaccination Rates

11-18 Year Olds Receiving Three HPV Vaccinations



Data was current as of August 11, 2014, when obtained from the Kansas Immunization Registry (KSWebIZ)

≤ 9% 10-29% ≥30%

Kansas HPV Immunization rates (age 13-17): NIS 2015		
	>/= 1 dose HPV	3 dose HPV
Males	36.0%	18.5%
Females	50.9%	36.0%

Kansas HPV Vaccination Rates 11-18 Years of Age		
	≥1 dose HPV	≥3 doses HPV
Male	15.2%	8.6%
Female	24.5%	17.2%
Combined	19.7%	12.8%

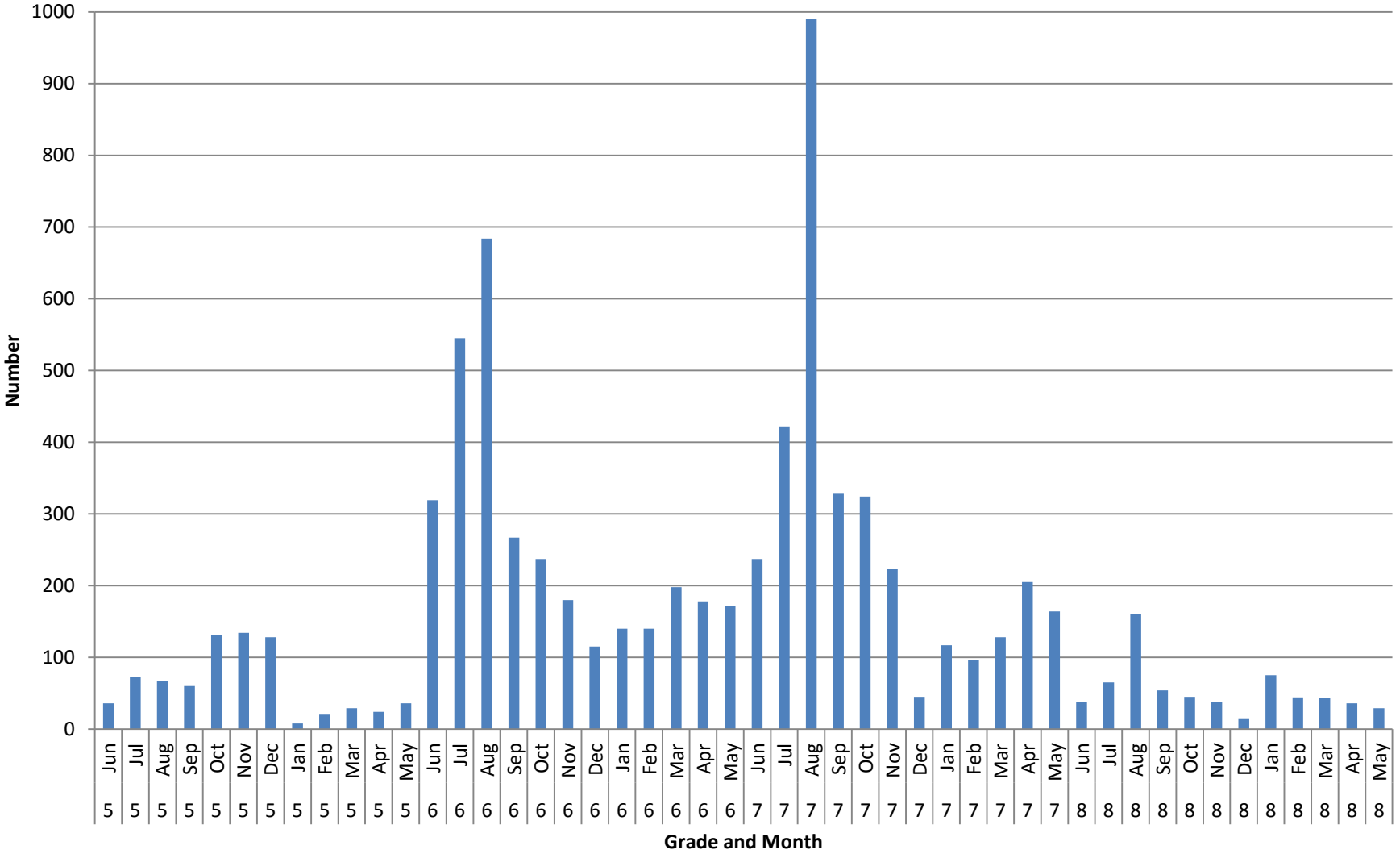
Data from KS Immunization Registry (KSWebIZ) as of 8/11/2014.

Using Claims data to examine HPV immunizations

- Medicaid CY 2013, 2014, & 2015
  - Enrollment files children 3rd through 12th grade
  - Immunization claims (tdap, HPV, meningococcus)
- Kansas Health Insurance Information System
  - Immunization claims (tdap, HPV, meningococcus) (CY 2013, 2014, 2015)

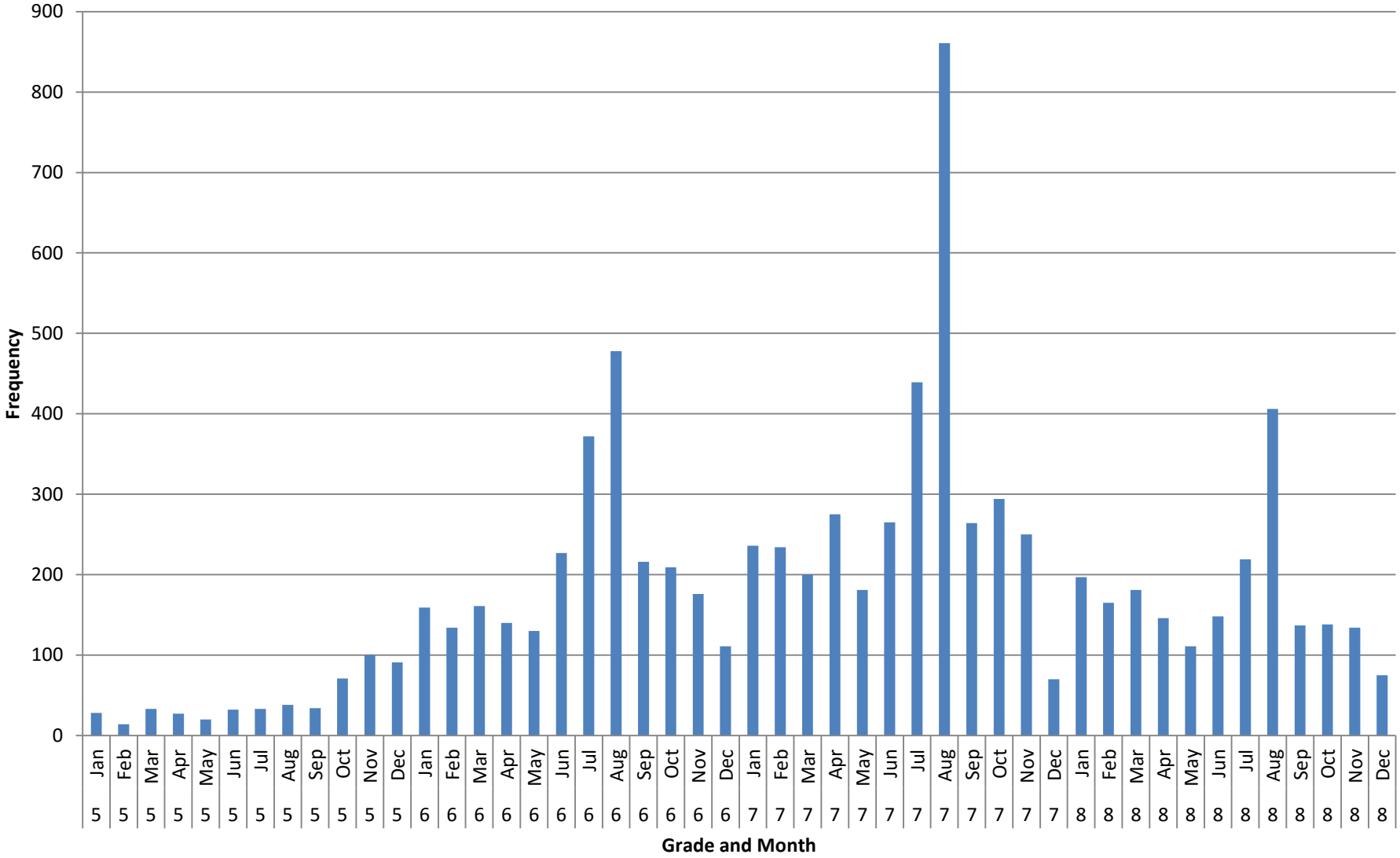
WHEN DO CHILDREN GET VACCINATED?

Number of Tdap Vaccinations provided 5th-8th Grade, 2015 (2013-2015 Kansas Medicaid Data)*



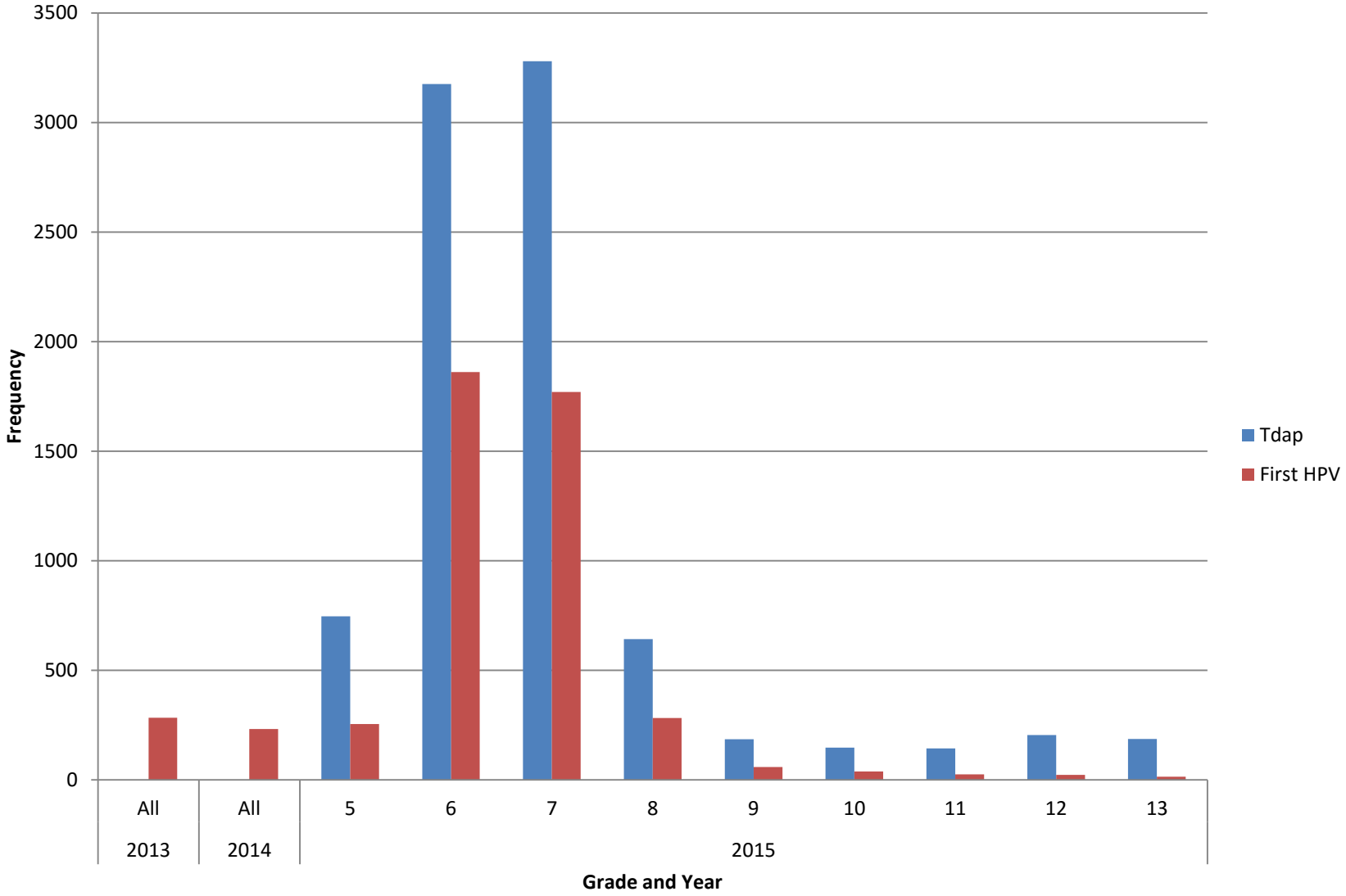
*Among eligible all 3 years

Number of HPV Vaccinations Provided 5th-8th Grade, 2015 (2015 Kansas Medicaid Data)*



*Among eligible all 3 years

Tdap and HPV by Grade, for those receiving Tdap in 2015 (2013-2015 Kansas Medicaid Data)

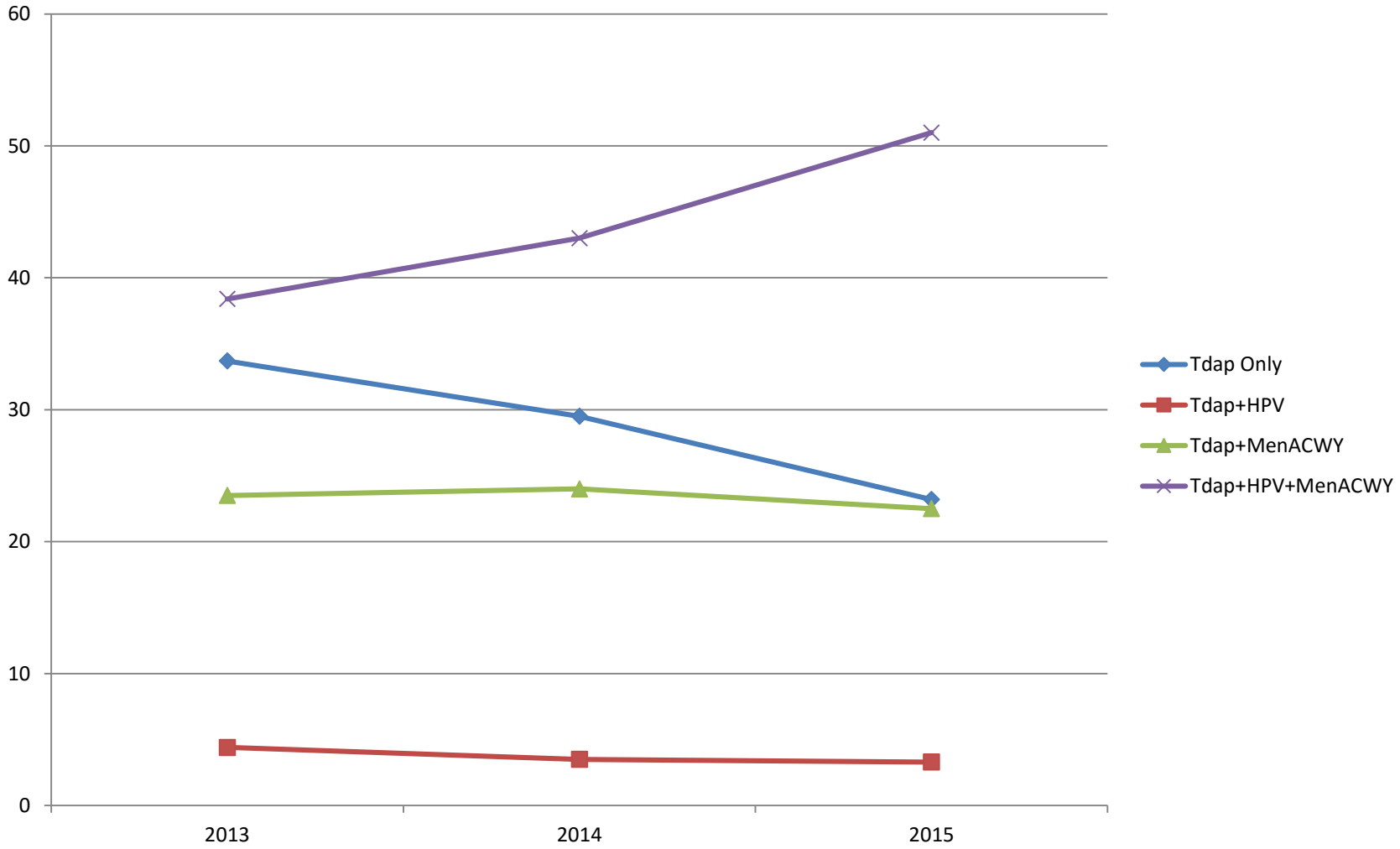


HOW OFTEN DO OUR CHILDREN RECEIVE OTHER VACCINES ALONG WITH THEIR TDAP?

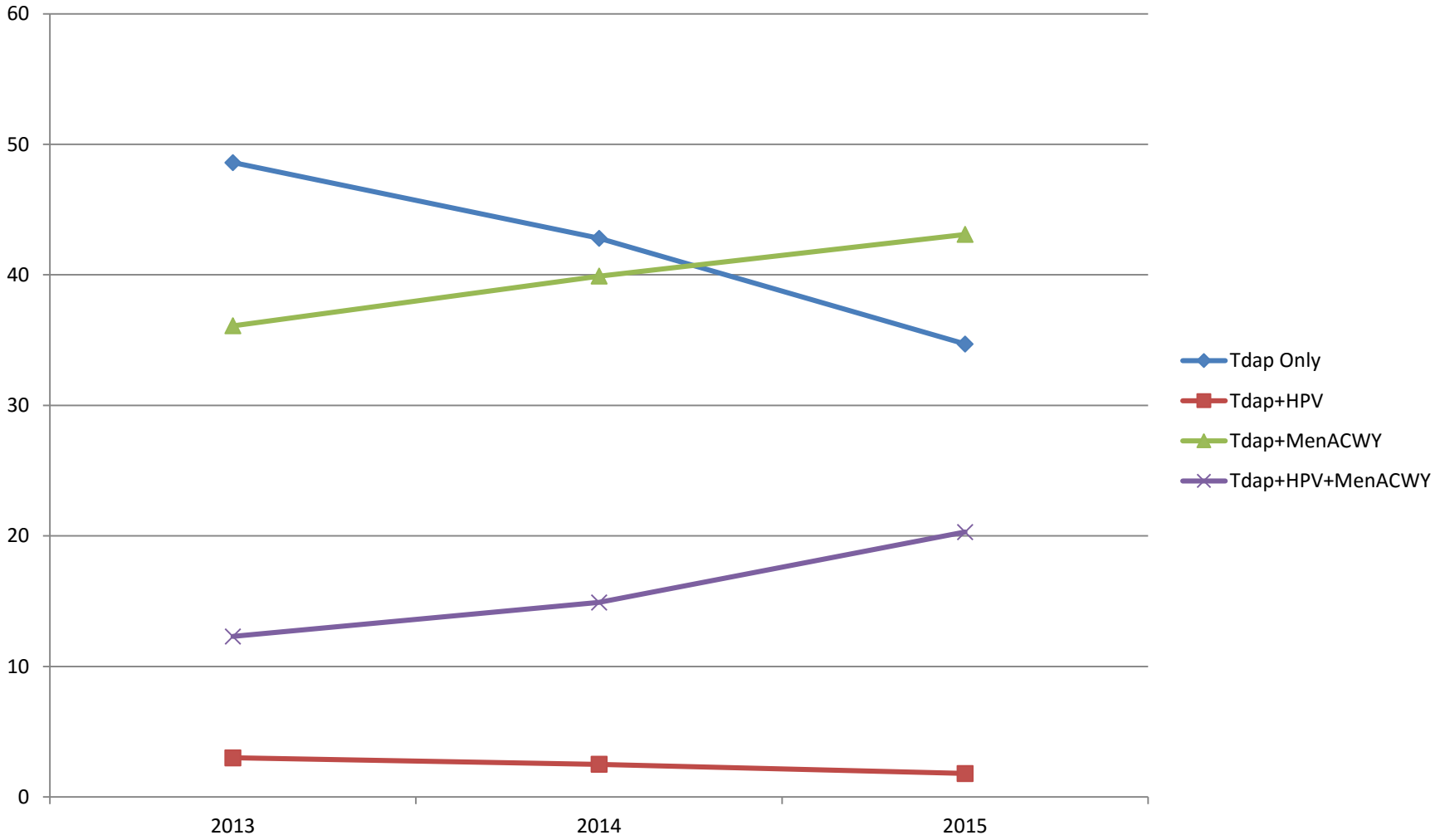
Concomitant Vaccination Rates among 6th and 7th Graders Receiving Tdap

	Medicaid 2015 (n=7,916)	KHIIS 2015 (n=7,905)
Tdap Only	1833 (23.2%)	1696 (34.7%)
Tdap + HPV	262 (3.3%)	90 (1.8%)
Tdap + MenACWY	1781 (22.5%)	2105 (43.1%)
Tdap + HPV + MenACWY	4040 (51.0%)	991 (20.3%)

Concomitant Vaccination Patterns among 6th and 7th Graders Receiving Tdap (Medicaid Claims)



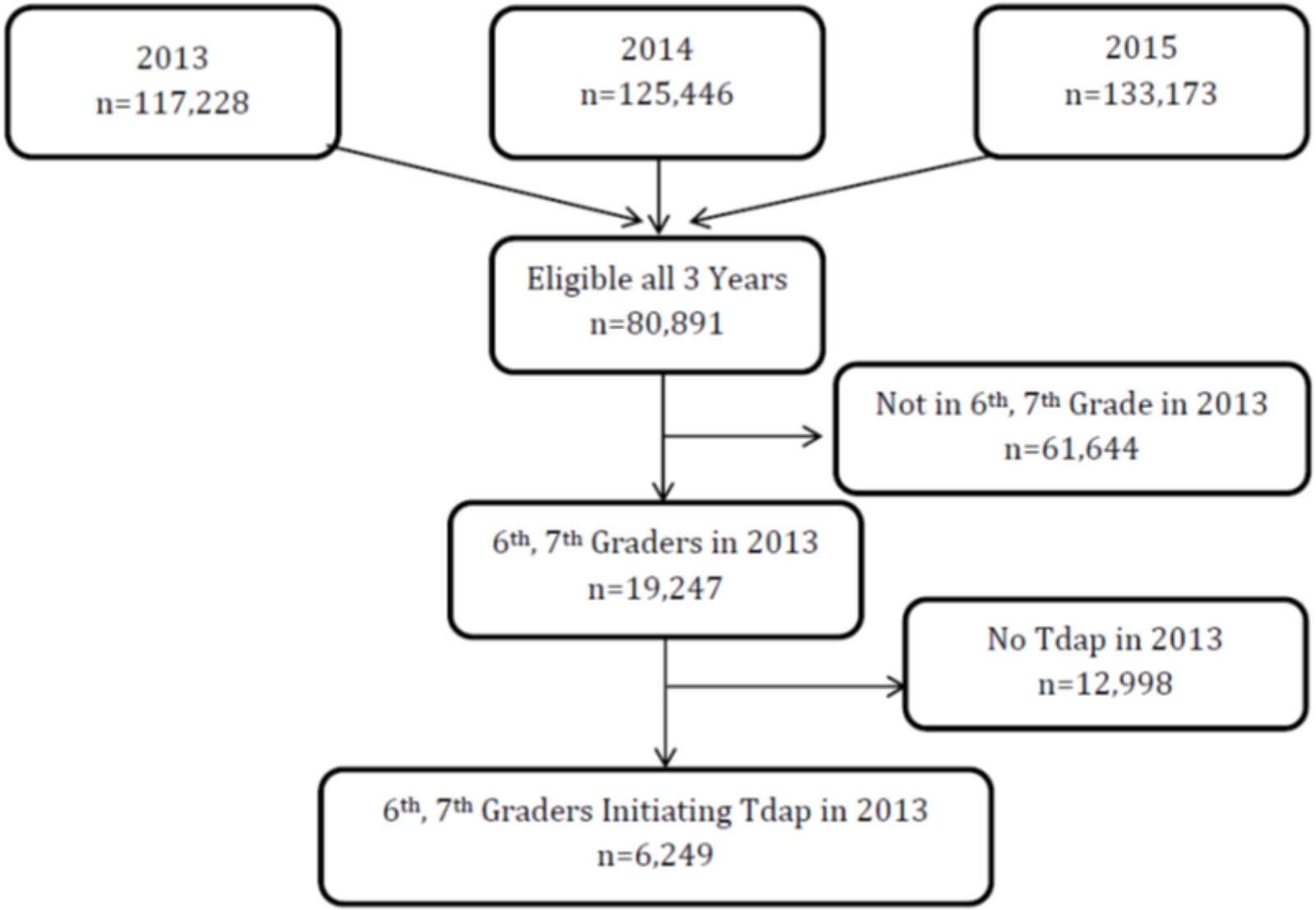
Concomitant Vaccination Patterns among 6th and 7th Graders Receiving Tdap (KHIIS Claims)



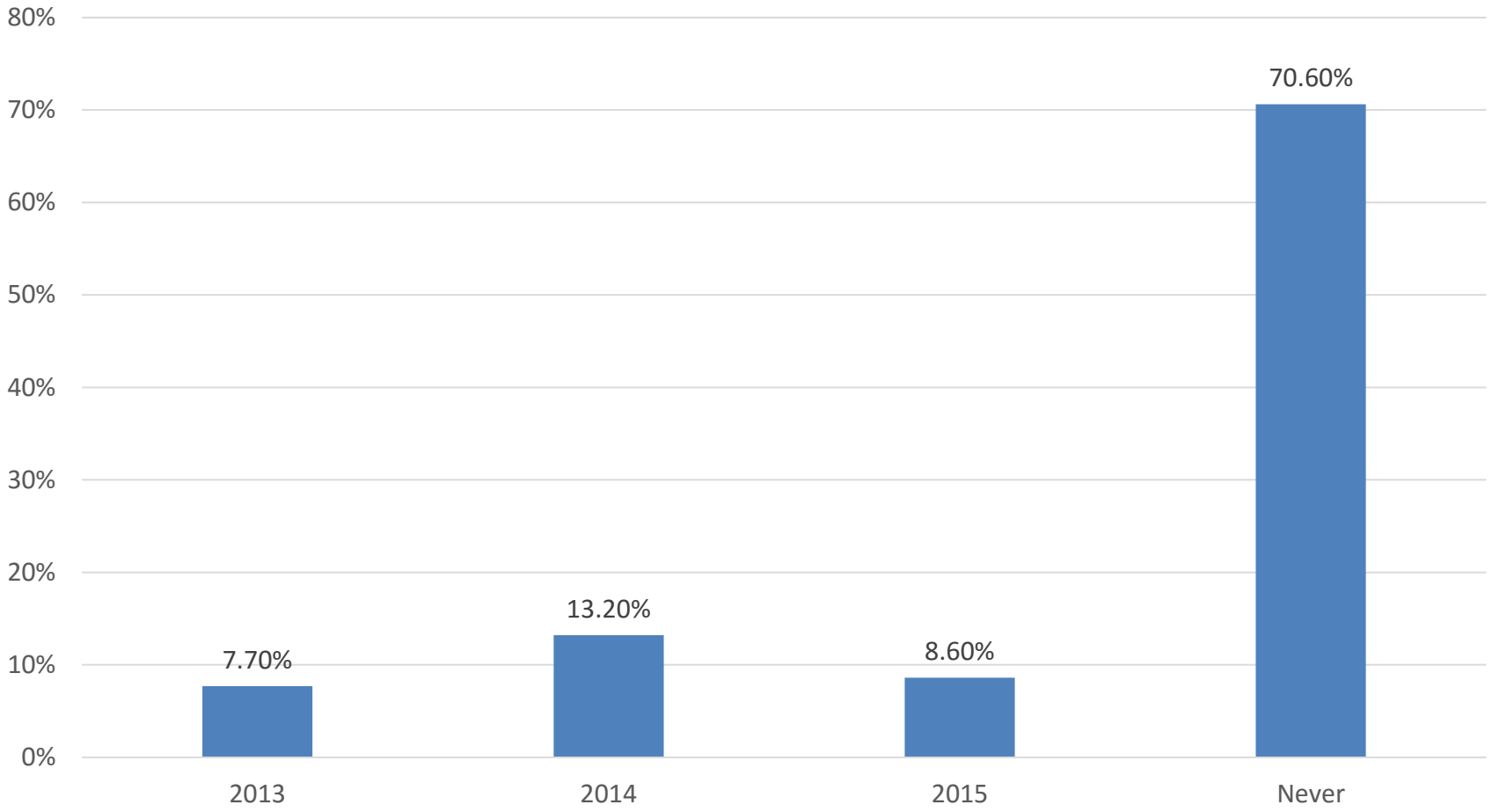
Factors associated with simultaneous TDAP and HPV vaccination among 6th and 7th graders in Kansas in 2015

	Medicaid		KHIIS	
	OR (95% CI)	p-value	OR (95% CI)	p-value
Grade, 7th	0.83 (0.76-0.91)	<0.001	0.82 (0.71-1.00)	0.06
Gender, Male	0.90 (0.83-0.99)	0.02	0.82(0.72-0.94)	0.004
Residency, Metro	1.2 (1.06-1.27)	0.0011	0.53(0.46-0.61)	<0.001

WHAT HAPPENS IF YOU DON'T GET HPV VACCINATION AT THE TIME OF YOUR TDAP?

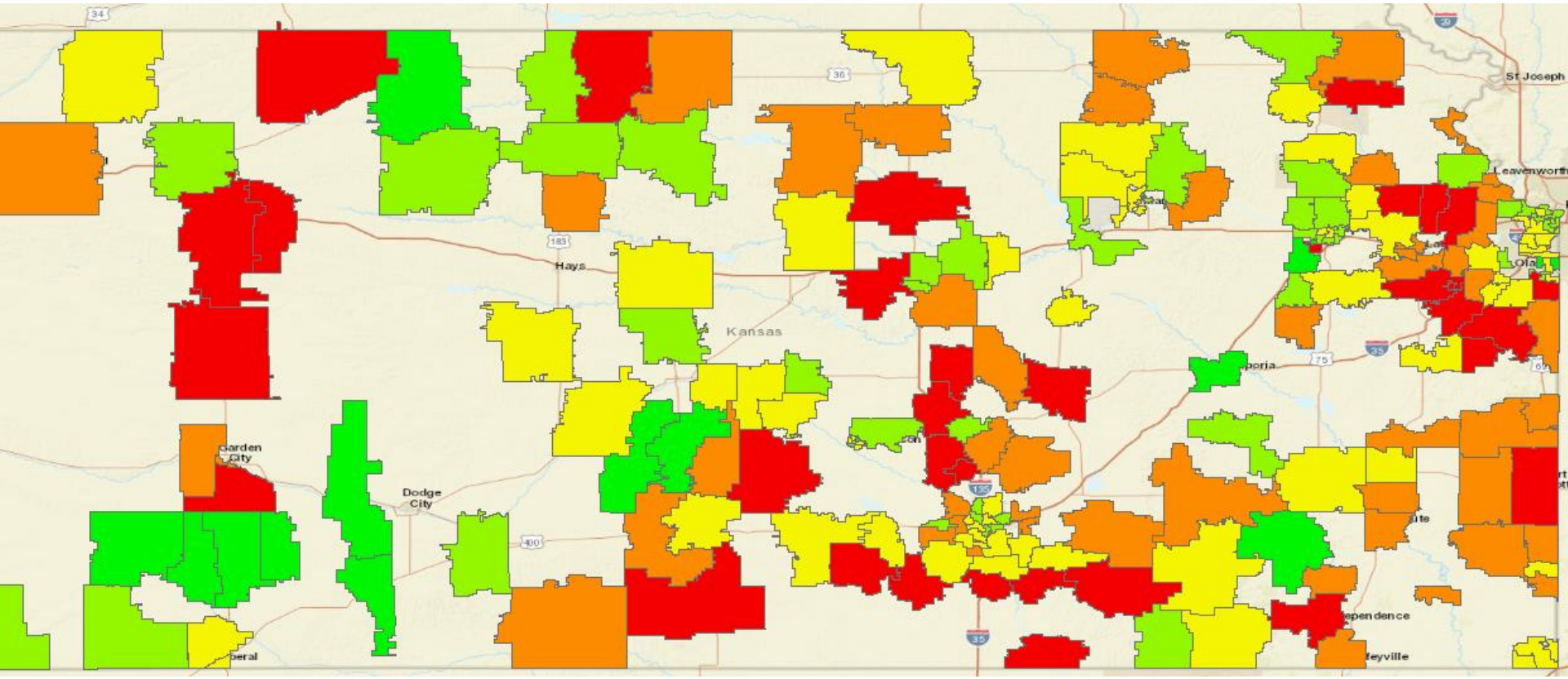

2013
n=117,228
2014
n=125,446
2015
n=133,173
Eligible all 3 Years
n=80,891
Not in 6th, 7th Grade in 2013
n=61,644
6th, 7th Graders in 2013
n=19,247
No Tdap in 2013
n=12,998
6th, 7th Graders Initiating Tdap in 2013
n=6,249

Subsequent HPV vaccination rates of 3508 6th and 7th graders not getting HPV vaccine at time of TDAP in 2013 (Medicaid Claims)

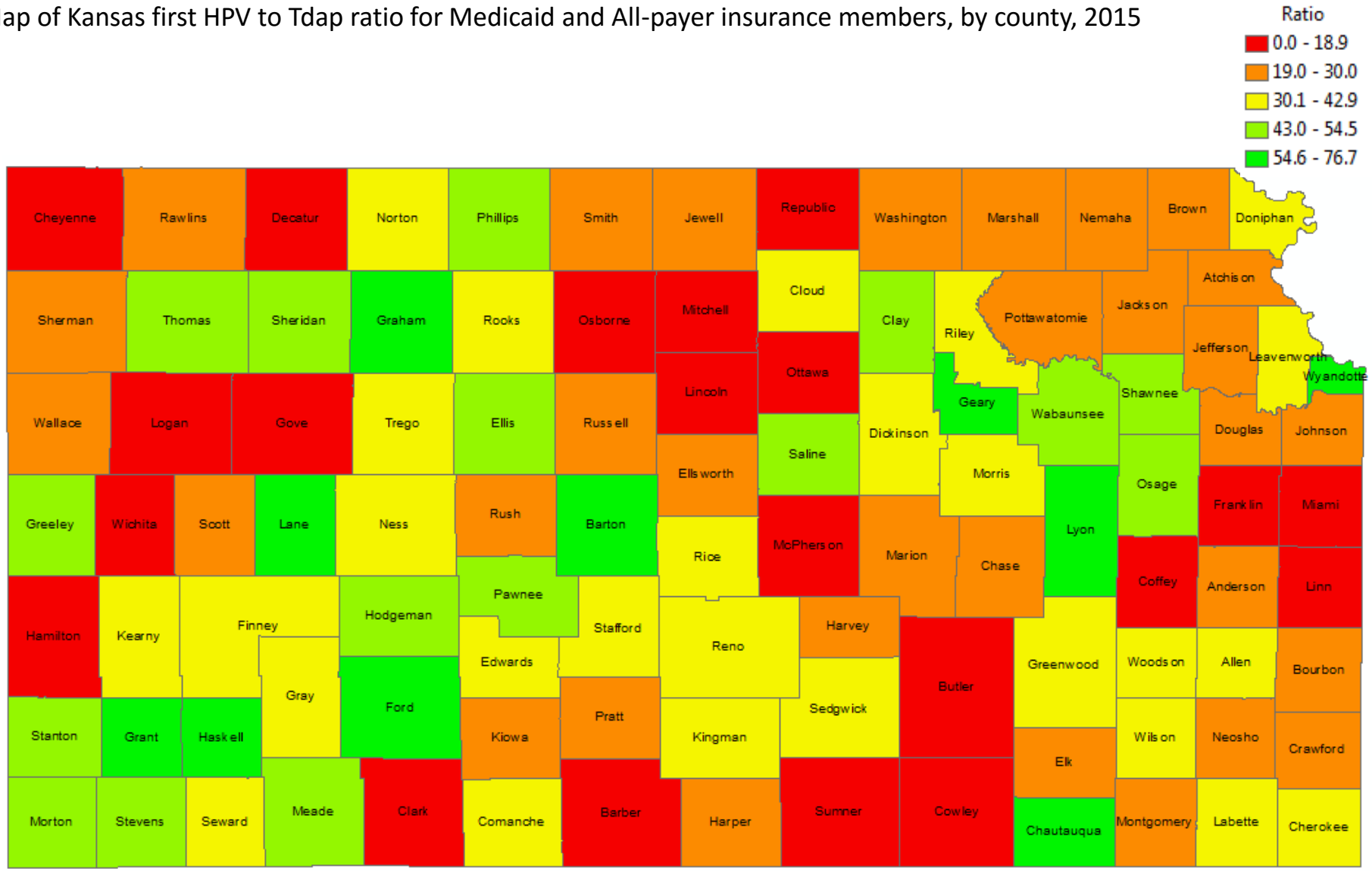


HPV/TDAP RATIOS AS A WAY TO LOOK AT LOCAL IMMUNIZATION RATES

First HPV immunization to Tdap ratio by middle school attendance area, Kansas Medicaid data, 2014



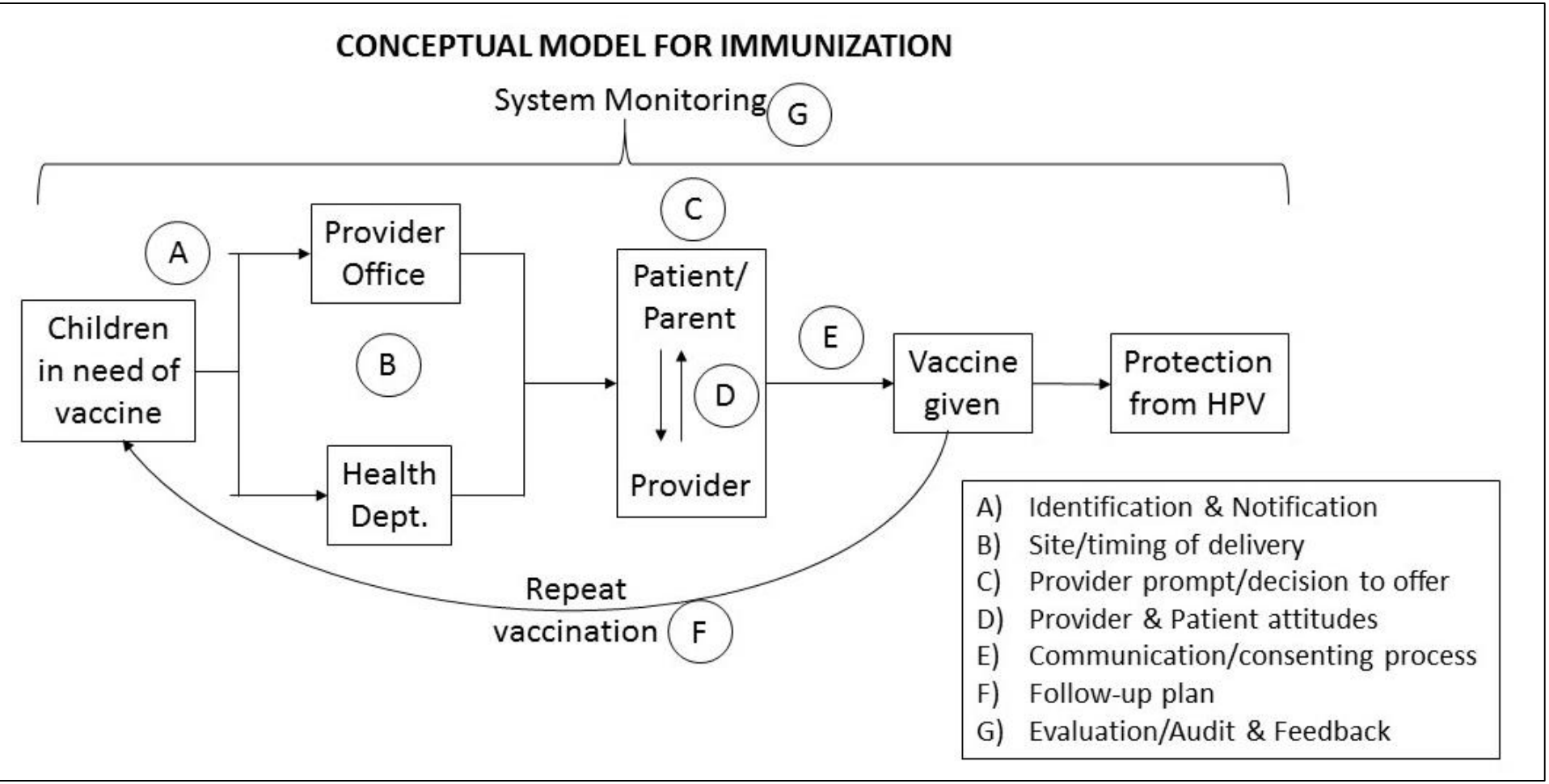
Map of Kansas first HPV to Tdap ratio for Medicaid and All-payer insurance members, by county, 2015



Issues in using claims to track local data

- Data source
  - Medicaid (clearly defined denominator)
  - KHIIS (denominator – TDAP?)
- Age group
  - 6th & 7th graders (can track with 1-2 years of data)
    - Need 2 years of data to distinguish 1st vaccinations
- Jurisdiction
  - County vs. school district
  - Small denominators (may require merging several years of data)
- Multiple vaccinations
  - Focus on simultaneous vaccinations
  - Use multiple years

ACCURATE LOCAL DATA IS CRITICAL TO MEASURING CHANGES OVER TIME



NIH proposal: Use 'Intervention mapping' to work with schools, providers, health departments and parents in local areas to guide the selection and implementation of evidence-based immunization tools at each point in the immunization process.