

Adolescent immunization uptake in Michigan

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November 2007 MACI meeting

MCIR data issues: adolescents

- Law requires that all children born in 1994 or later have their iz. reported to MCIR
 - Providers might be less diligent about reporting adolescent iz.
- MCIR not operational until 1998
- Denominator problems
 - Birth record data only available from kids born 1997 or later
 - Migration issues: Older children have had more time to move in/out of state
- ‘Historical’ iz. might not be in MCIR
 - It takes effort to enter these older doses

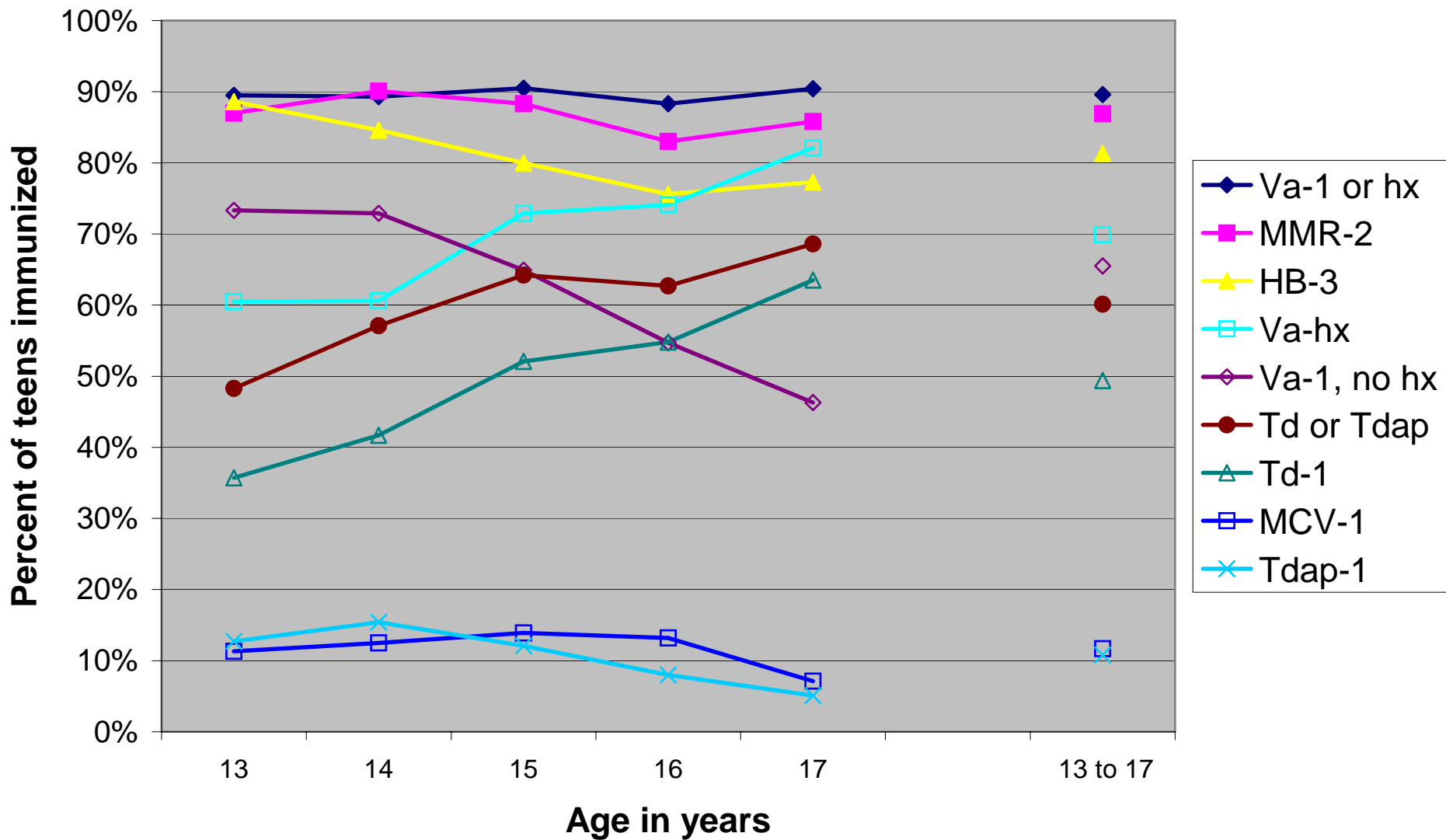
Outline of talk

- Basic characteristics of MCIR data
- Discuss NIS-teen
- Immunization uptake over time & by age:
 - Tdap, MCV4, HPV4
- Immunization disparities
- Discussion

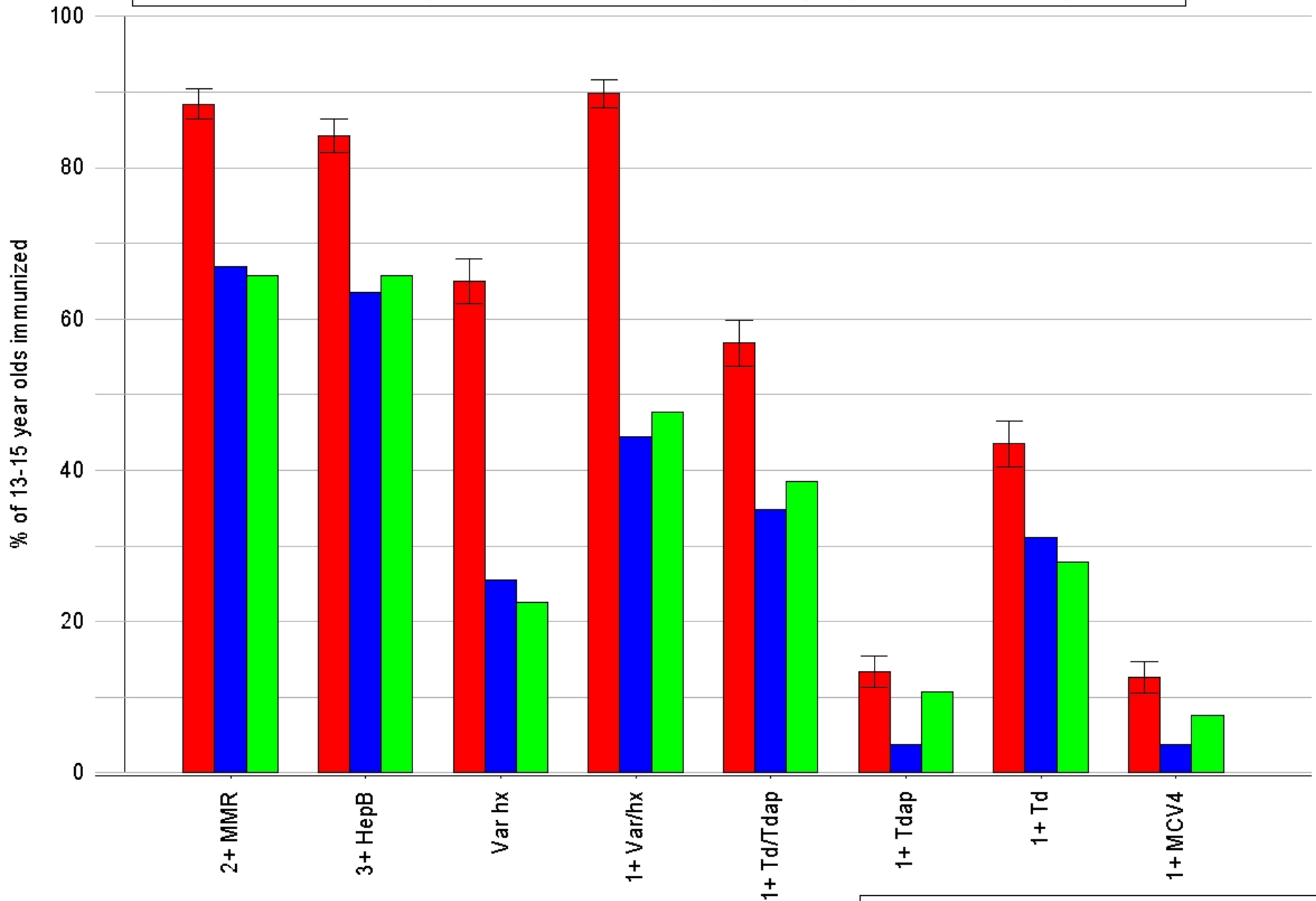
“NIS-Teen”

- Extension of the National Immunization Survey, a nationwide telephone survey
- Recently added to NIS
 - 2006 data released Aug. 2007
- Nationwide estimates only
 - MMR, HB, Va, Td/Tdap, MCV4

NIS-Teen results, USA, 2006, ages 13-17 years



NIS data for 2006 compared to sentinel site quarterly report data, 13-15 year olds



Note: 2006 NIS data are the most recent available. Comparing NIC data w. 2007Q2 data is not ideal because iz. patterns may have changed since 2006. 1+ Var/hx and 1+ Td/Tdap (sentinel) are slightly inflated since kids w. both are double-counted. 2006Q3 sentinel area: all except SE MI (Liv., Oak., Mac., StC., Wash., Wayne, Det., Monr.). 2007Q2 sentinel area: all except Oakland, Wayne, & Detroit. Prepared by Kyle Enger, Epidemiologist, MDCH Division of Immunization

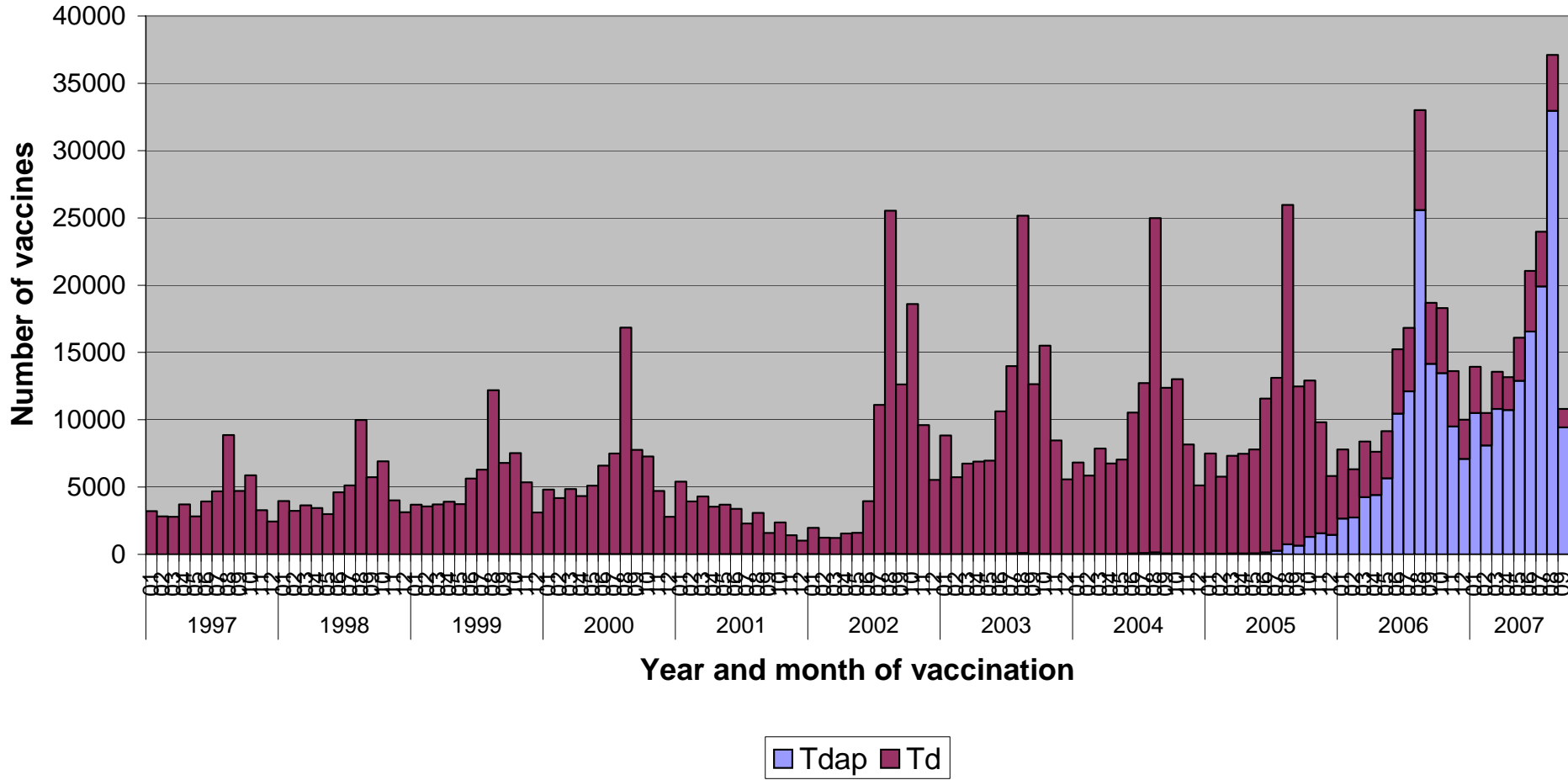
Legend

- NIS, USA, 2006
- Sentinel area, 2006Q3
- Sentinel area, 2007Q2

Tdap vaccine

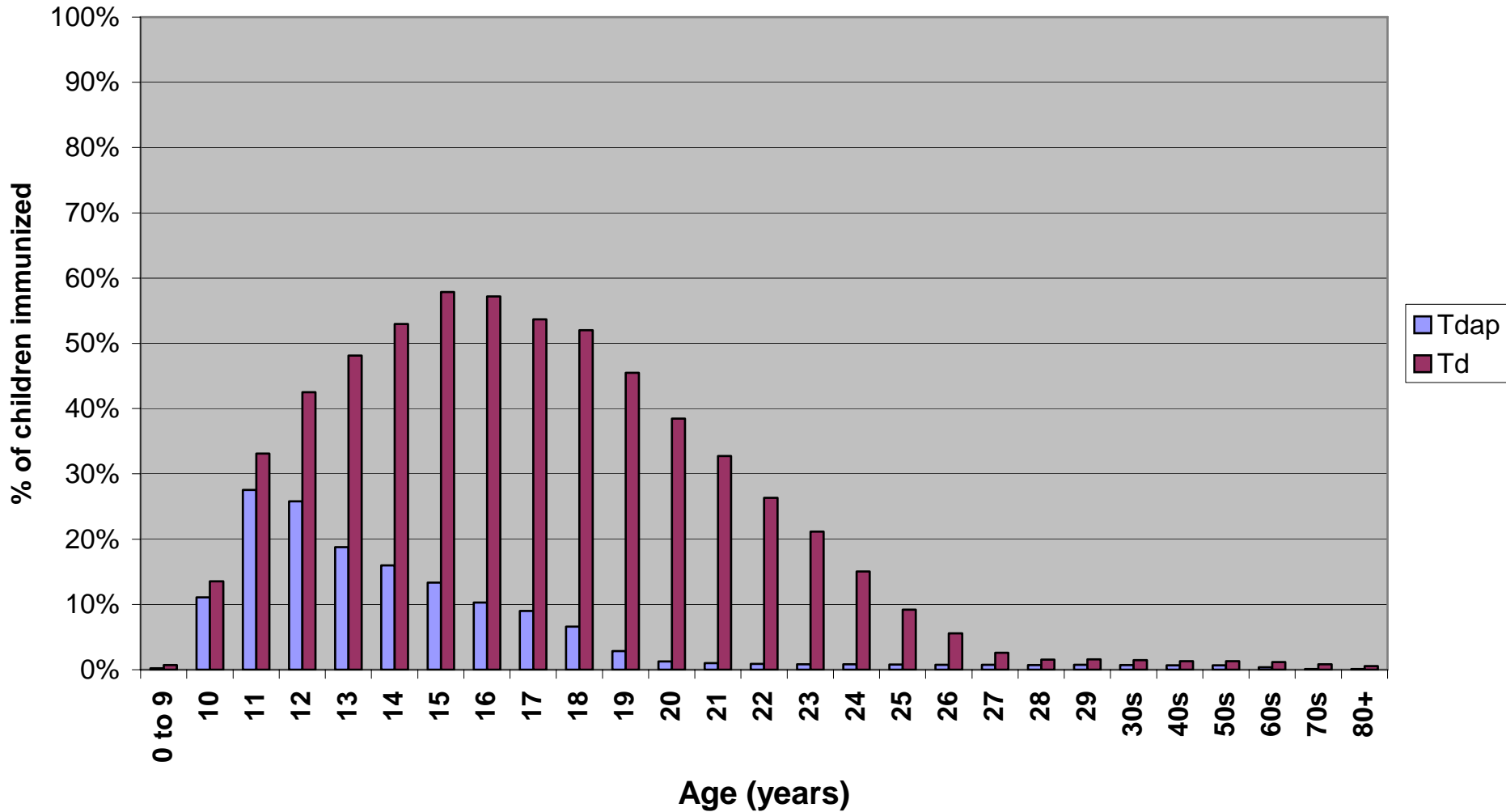
- FDA-approved:
 - Boostrix (GSK, 10-18y): May 2005
 - Adacel (SP, 11-64y): June 2005
- Available in VFC Oct. 2005
- ACIP-recommended Feb. 2006

Td-containing vaccines administered in Michigan by month, according to MCIR



Percent coverage for Td-containing iz. and Tdap in Michigan, Sep. 2007, per MCIR

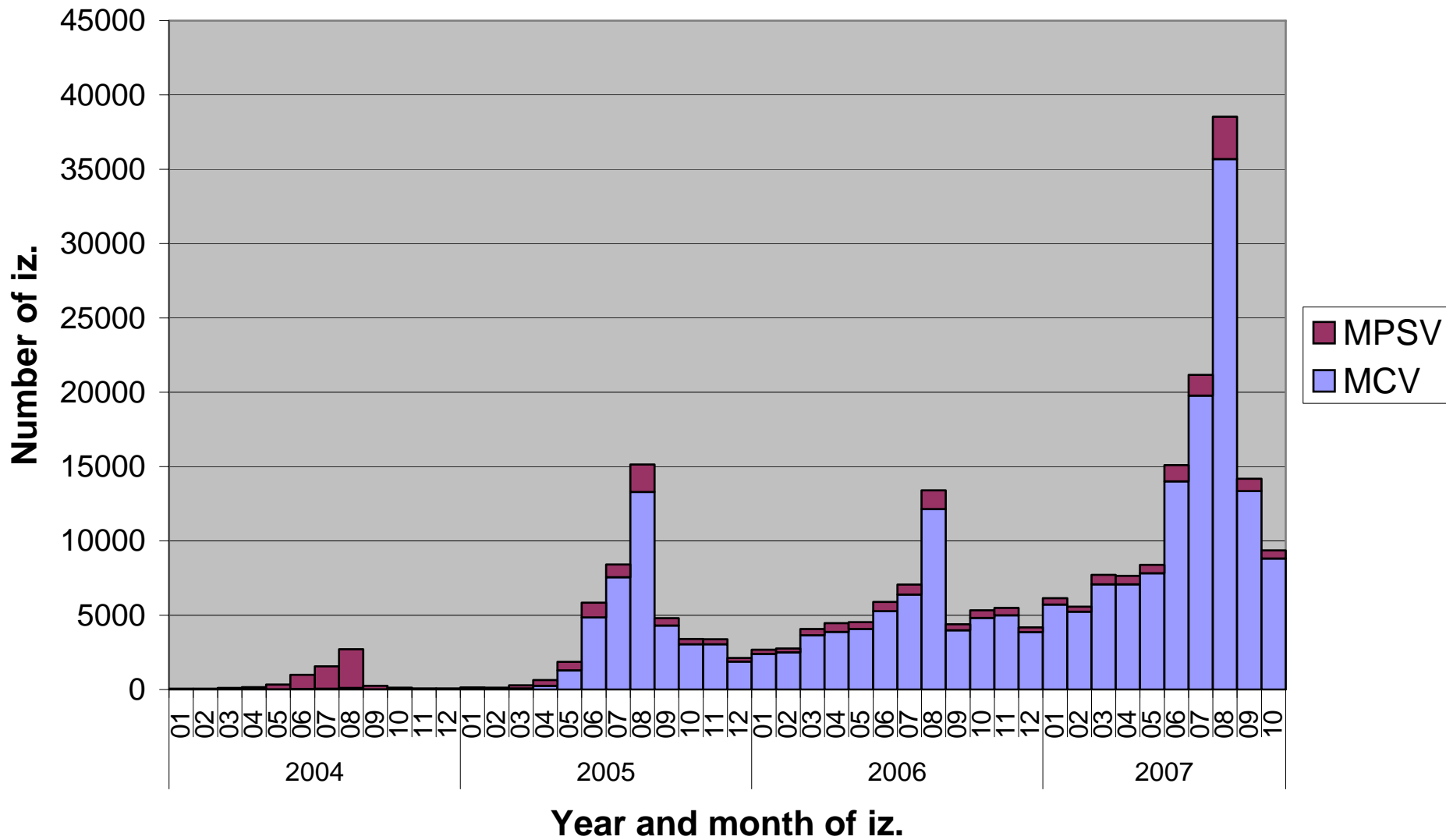
2006 census population estimate data used as denominator.



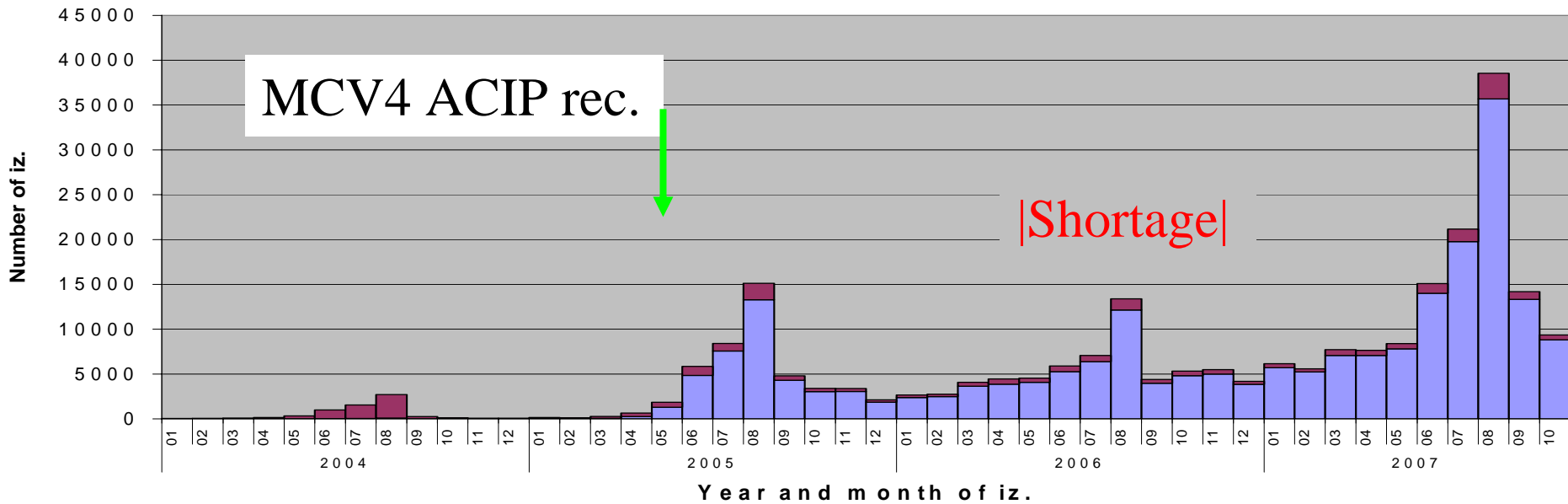
Meningococcal conjugate vaccine

- ACIP-recommended & in VFC May 2005
- Shortage from May to Nov. 2006
 - ACIP recommended deferral of 11-12y doses during that time
- Relatively low uptake in 2006, but large increase in 2007

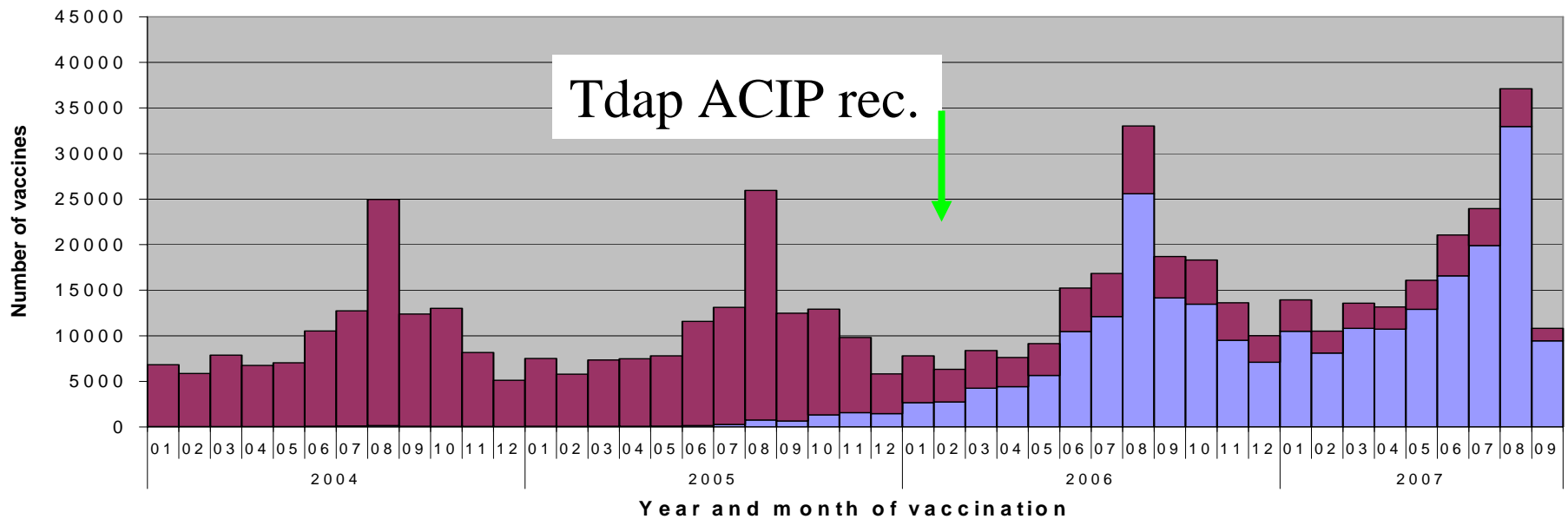
Number of meningococcal iz. recorded in MCIR



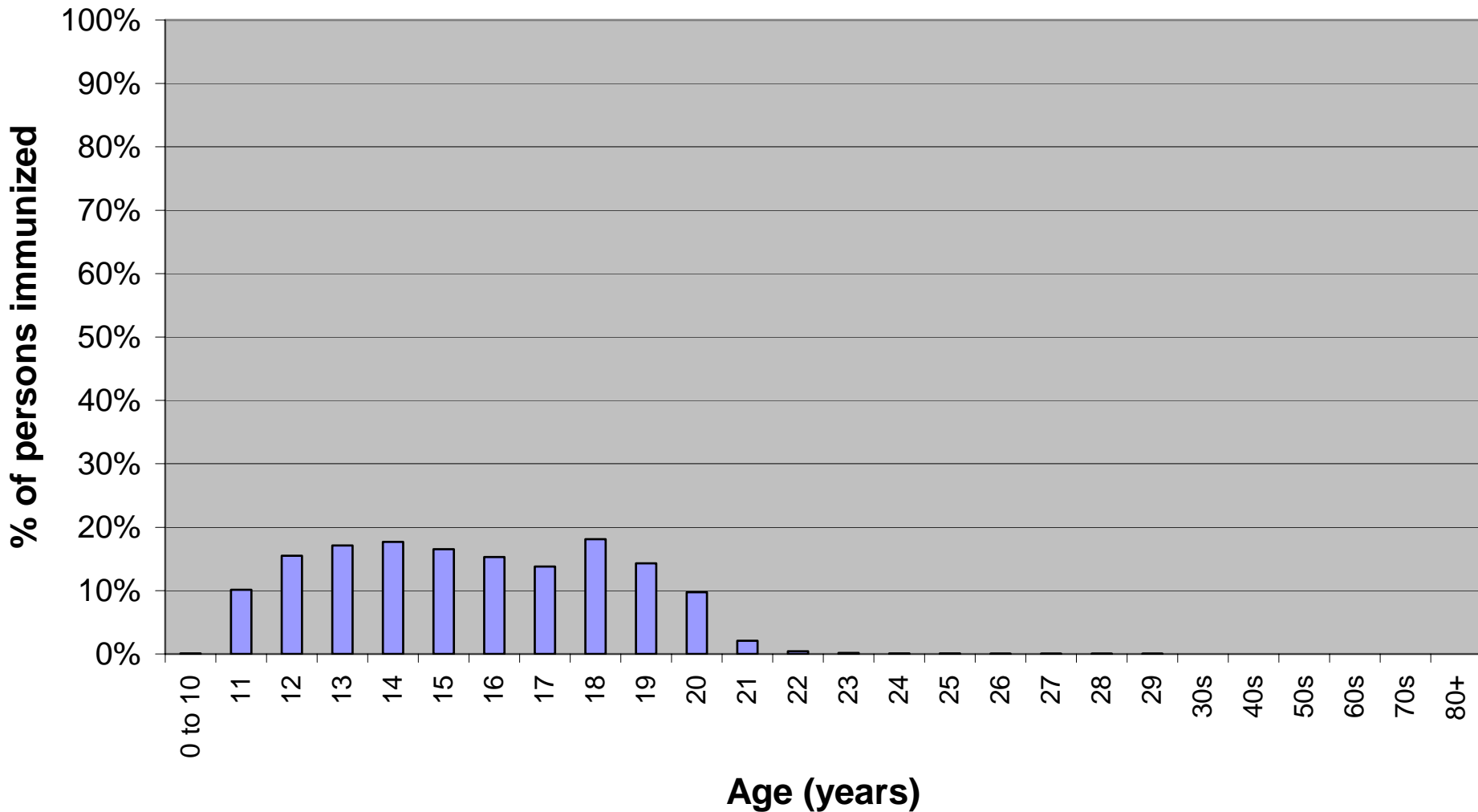
Number of meningococcal iz. recorded in M CIR



Td-containing vaccines administered in Michigan by month, according to M CIR



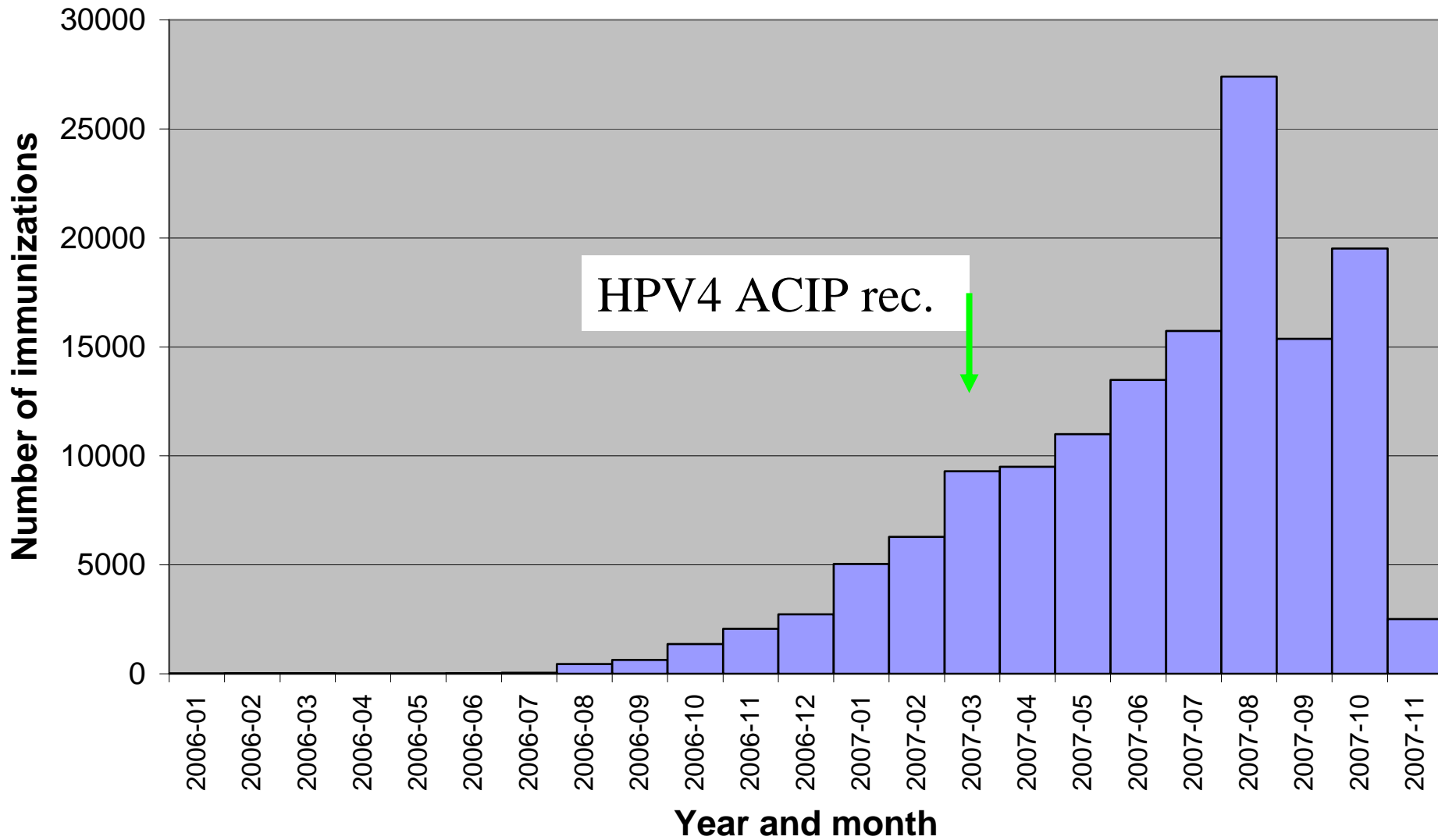
Percent coverage with MCV4 in Michigan, per MCIR, Oct. 2007



HPV4 vaccine

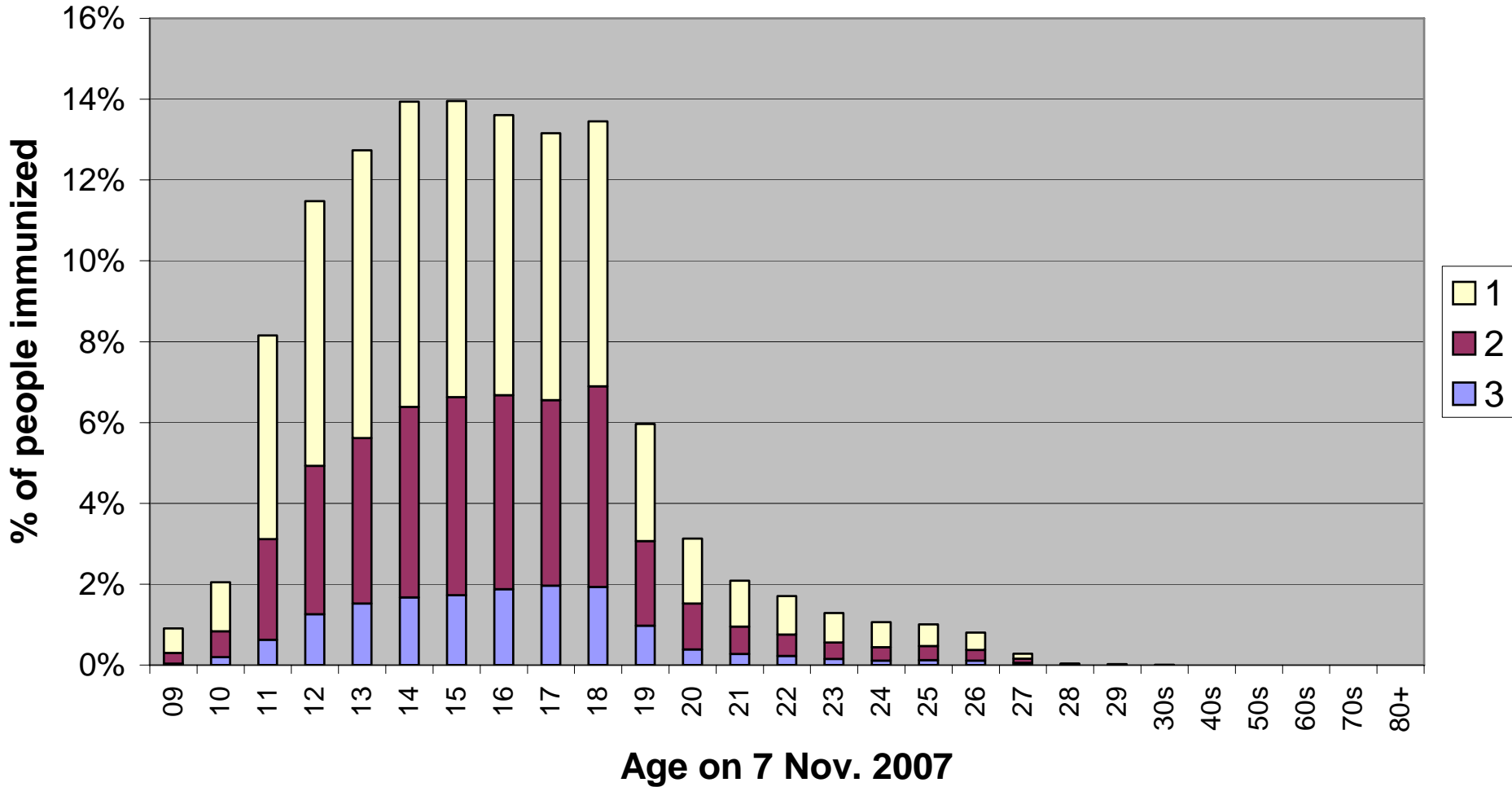
- 3 dose series, recommended at 11-12y
- Recently recommended
 - FDA: June 2006
 - VFC: Dec. 2006
 - ACIP: March 2007
- Coverage is low but increasing
- May be too early for meaningful analysis
 - Under ACIP recs., if series started in March, would not be complete until September

HPV4 vaccinations reported to MCIR by month



Percent coverage for HPV4 in Michigan, Nov. 2007, per MCIR

2006 census population estimate data used as denominator (females only).



Health disparities (HPV4)

- We lack race data for individual adolescents
- No association at county level between % minority, % immunized, or pop. density
- Little diff. in 1+ iz. by cerv. cancer incidence

Incidence, 95-04	11-12y	13-18y
High	9.7%	11.2%
Medium	10.4%	12.7%
Low	9.1%	11.7%

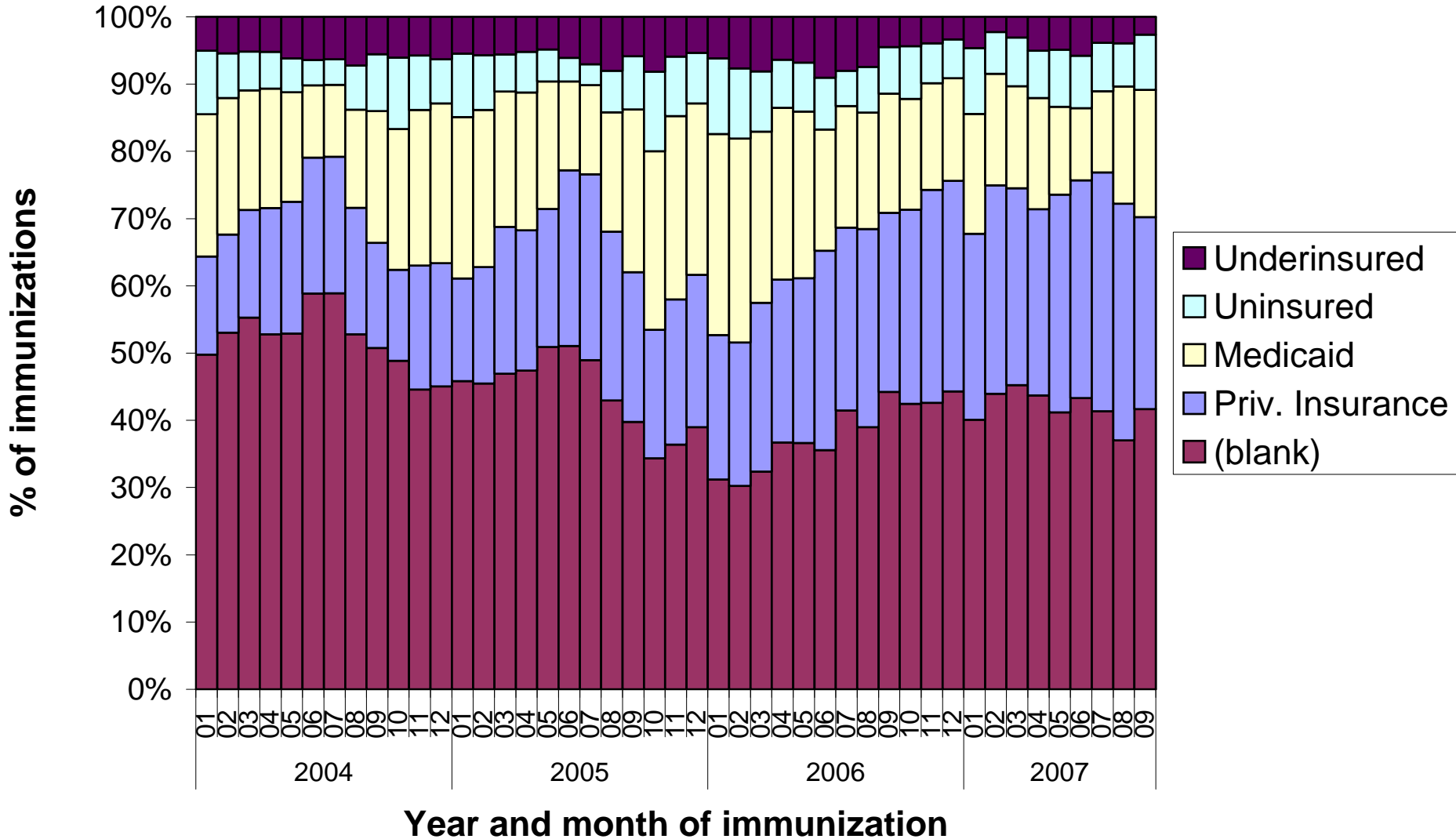
Health disparities (Tdap & MCV4)

- Like HPV4, results were inconclusive.
 - Hispanics aged 11-12y might do better with Tdap: 1 point increase in % Hispanic significantly assoc. with 0.4 point increase in Tdap coverage
 - Not a reliable result
 - Ecological data
 - Not corroborated in 13-18y group
 - The only significant result in ~20 tests

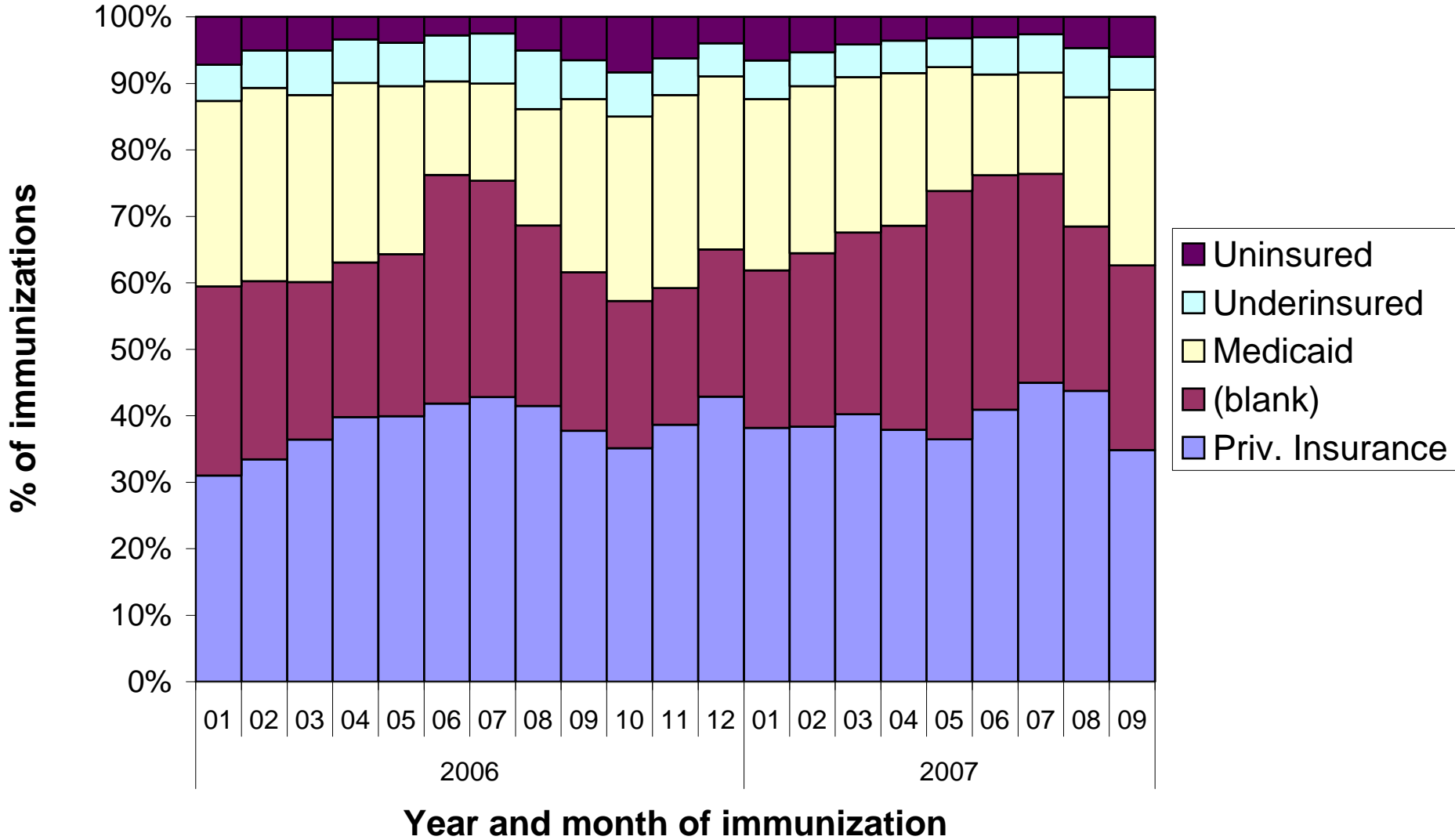
Vaccine funding eligibility

- Should indicate whether iz. are being given to poorer kids
- Indicates how/why a child is VFC-eligible
- Many missing values, but still useful
 - Most of the missing are probably private doses
 - Data will improve once MCIR VIM is operational

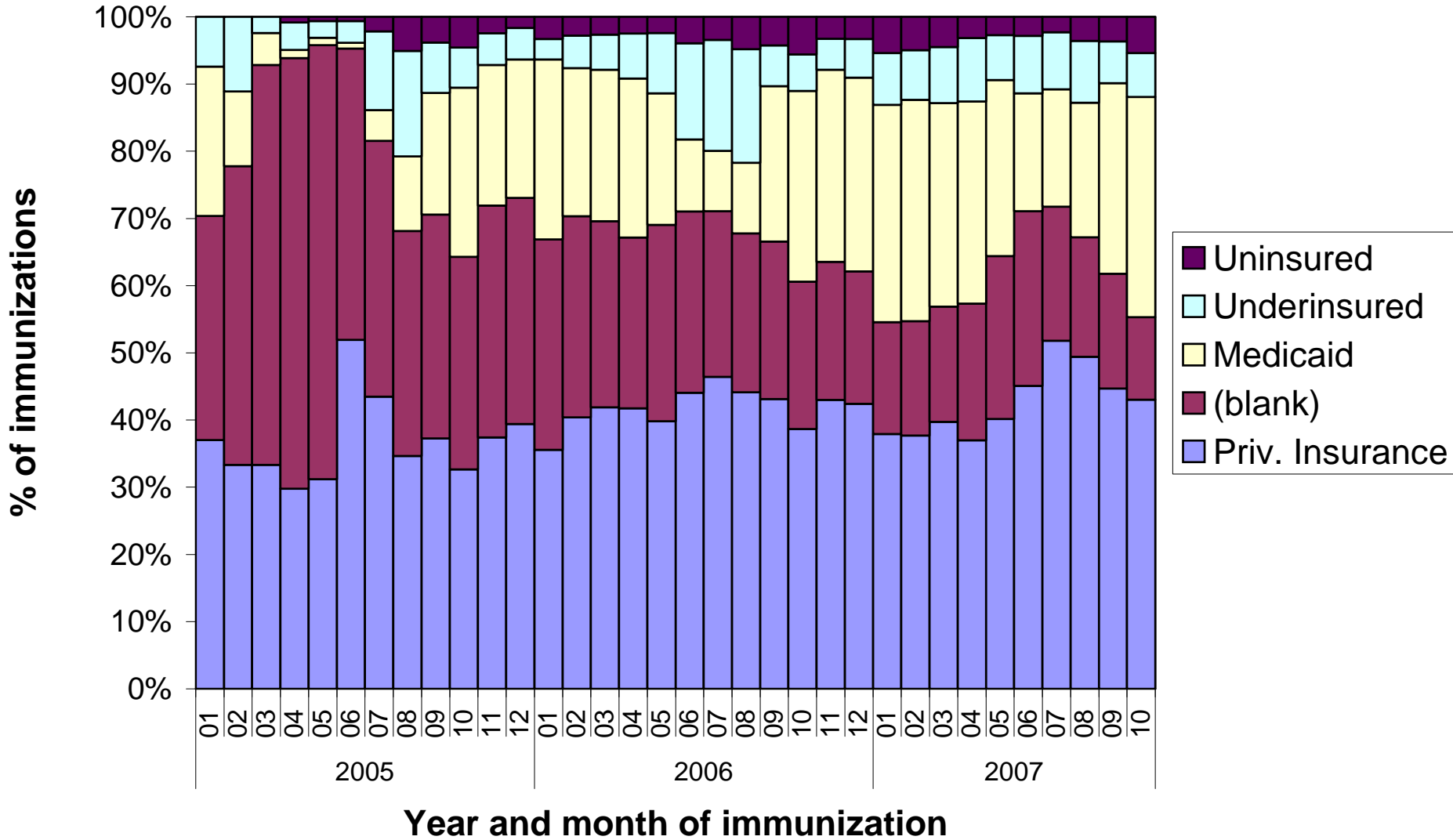
Vaccine funding eligibility, Td



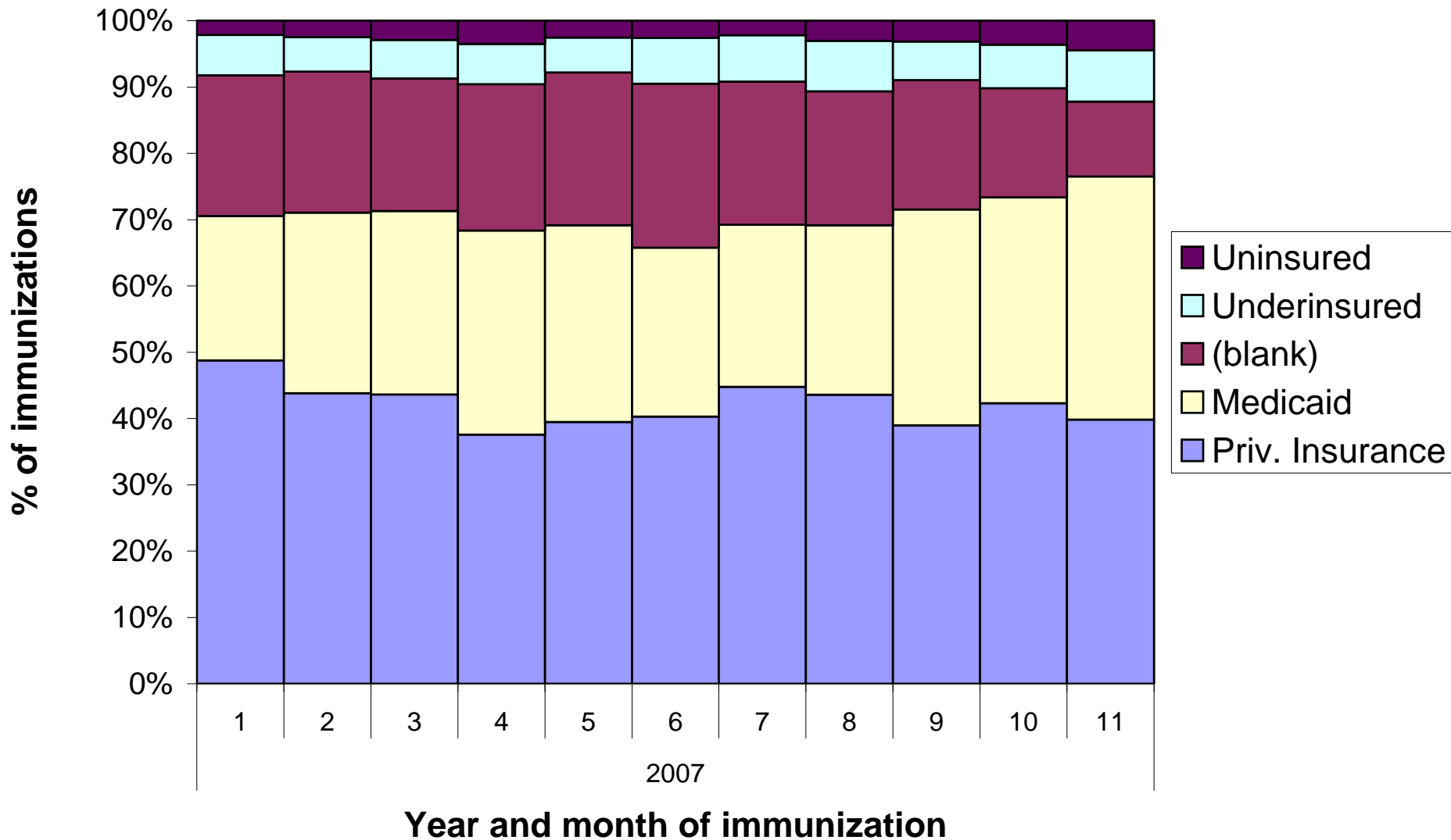
Vaccine funding eligibility, Tdap



Vaccine funding eligibility, MCV4



Vaccine funding eligibility, HPV4



Summary

- MCIR has limitations, but is useful for adol. iz.
 - Large numbers of adol. iz. are being reported
- 1-dose covg. with Tdap, MCV4, and HPV4 is ~15% in the 11-18 age group
 - # of doses reported is increasing
- Inconclusive results on adol. iz. disparities
 - Individual-level data will help further research
 - However, many iz. are through Medicaid/VFC

Questions?

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