

Childhood Immunization Under ACA: The Future is not What it Used to be

Alaska Immunization Conference **Anchorage, Alaska**

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Topics

- Value of vaccines
- Vaccine financing
- Status of childhood immunization
- Future childhood program and Section 317 opportunities

Recommended Immunization Schedule for Persons Aged 0 Through 6 Years—United States • 2011

For those who fall behind or start late, see the catch-up schedule

Vaccine ▼	Age ►	Birth	1 month	2 months	4 months	6 months	12 months	15 months	18 months	19-23 months	2-3 years	4-6 years
Hepatitis B ¹	HepB		HepB			HepB						
Rotavirus ²				RV	RV	RV ²						
Diphtheria, Tetanus, Pertussis ³			DTaP	DTaP	DTaP	see footnote ³		DTaP				DTaP
<i>Haemophilus influenzae</i> type b ⁴			Hib	Hib	Hib ⁴		Hib					
Pneumococcal ⁵			PCV	PCV	PCV		PCV				PPSV	
Inactivated Poliovirus ⁶			IPV	IPV			IPV					IPV
Influenza ⁷							Influenza (Yearly)					
Measles, Mumps, Rubella ⁸							MMR			see footnote ⁸		MMR
Varicella ⁹							Varicella			see footnote ⁹		Varicella
Hepatitis A ¹⁰							HepA (2 doses)					HepA Series
Meningococcal ¹¹												MCV4

Range of recommended ages for all children

Range of recommended ages for certain high-risk groups

Recommended Immunization Schedule for Persons Aged 7 Through 18 Years—United States • 2011

For those who fall behind or start late, see the schedule below and the catch-up schedule

Vaccine ▼	Age ►	7-10 years	11-12 years	13-18 years
Tetanus, Diphtheria, Pertussis ¹			Tdap	Tdap
Human Papillomavirus ²		see footnote ²	HPV (3 doses)(females)	HPV Series
Meningococcal ³		MCV4	MCV4	MCV4
Influenza ⁴		Influenza (Yearly)		
Pneumococcal ⁵		Pneumococcal		
Hepatitis A ⁶		HepA Series		
Hepatitis B ⁷		Hep B Series		
Inactivated Poliovirus ⁸		IPV Series		
Measles, Mumps, Rubella ⁹		MMR Series		
Varicella ¹⁰		Varicella Series		

Range of recommended ages for all children

Range of recommended ages for catch-up immunization

Range of recommended ages for certain high-risk groups

MEASLES



RUBELLA



POLIO



VARICELLA



MENINGOCOCCEMIA



HAEMOPHILUS
INFLUENZAE
TYPE B



MUMPS



DIPHThERIA



Advisory Committee on Immunization Practices (ACIP)

Welcome to...

ACIP

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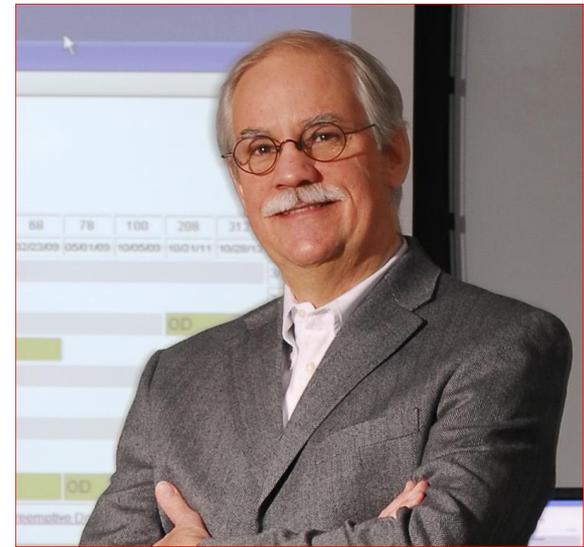
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The Immunization Schedule Saves Dollars as Well as Lives and Suffering

- Model-based analysis of vaccines recommended through varicella updated to include PCV7, rotavirus, hepatitis A (all vaccines in the 0 to 6 year schedule except influenza vaccine)
- Health impact for each birth cohort
 - Prevent 42,000 VPD deaths
 - Prevent 20 million VPD cases
- Economic impact for each birth cohort
 - \$13 billion saving in direct medical costs
 - \$68 billion in saving to society

Prioritizing Clinical Preventive Services: A Review and Framework with Implications for Community Preventive Services

Table 4 Ranking of clinical preventive services for the U.S. population

Clinical preventive service	CPB	CE	Total
Discuss daily aspirin use: men 40+, women 50+	5	5	10
Childhood immunizations	5	5	10
Smoking cessation advice and help to quit: adults	5	5	10
Alcohol screening and brief counseling: adults	4	5	9
Colorectal cancer screening: adults 50+	4	4	8
Hypertension screening and treatment: adults 18+	5	3	8
Influenza immunization: adults 50+	4	4	8
Vision screening: adults 65+	3	5	8
Cervical cancer screening: women	4	3	7
Cholesterol screening and treatment: men 35+, women 45+	5	2	7
Pneumococcal immunization: adults 65+	3	4	7
Breast cancer screening: women 40+	4	2	6

Annual Premiums for Routine Vaccines as a Percent of Total Premiums

	2009 Premiums for Routine Vaccination	2009 Premiums for Large Plans	% of Premiums Due to Vaccines
Family Coverage	\$107	\$13,280	0.8%
Single Coverage	\$8	\$4,940	0.2%

Source: Rose Chu, ASPE presentation at NVAC, June 2, 2009

Available at: http://www.hhs.gov/nvpo/nvac/meetings/pastmeetings/ins_premiums_200906.pdf

Most Parents Select Insurance That Covers Vaccines

- Parents value prevention
- Rate of underinsurance has remained constant for past 7 years (about 11% of young children) despite rising vaccine costs
- Parents prefer to be vaccinated at medical home, which is easiest when the child is fully insured or VFC entitled

Pre-ACA Private Insurance Challenges

- Vaccine coverage variable and voluntary
- ERISA plans exempt from state mandates
- Approximately 45% to 50% of young children are covered by private insurance

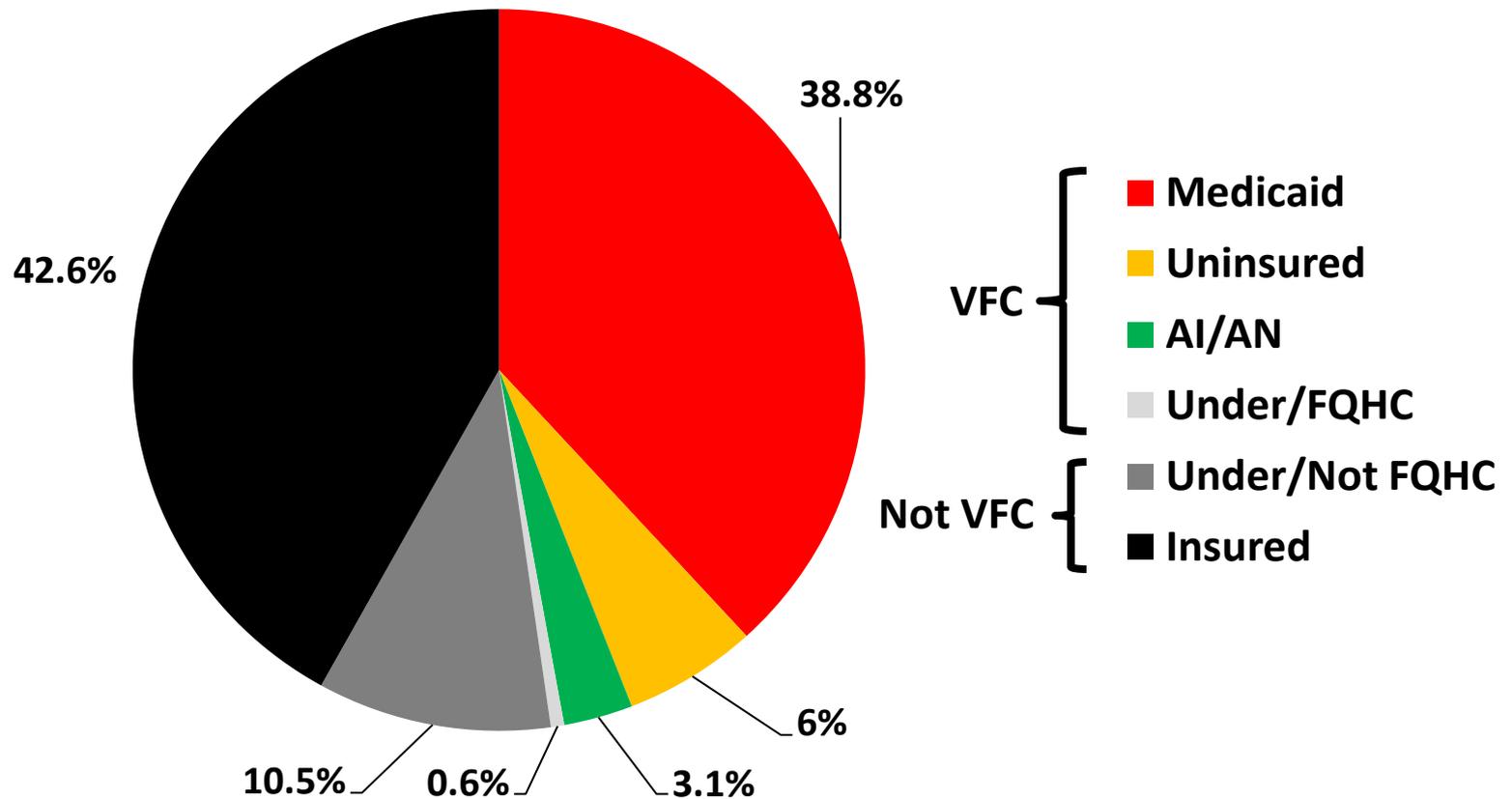
Federal Vaccine Funding Characteristics

- Vaccines for Children
 - Mandatory program with mandatory federal funding
 - Does not compete with other funding priorities
 - Grows with need
 - Has restrictions on who can be vaccinated: 0 – 18 years and
 - Medicaid enrolled or
 - Uninsured or
 - AI/AN or
 - Underinsured at FQHC/RHC
- Section 317
 - Discretionary program, funding newly appropriated annually
 - Competes with other funding priorities
 - Does not grow with need
 - Few restrictions on who can be vaccinated

ACIP Controls VFC Formulary

- Evidence-based vaccine insurance
- Empowers ACIP with means to carry out its recommendations
- Public health evidence > economic evidence
- Federal funding is mandated for included vaccines
- CDC negotiates vaccine contracts, but cannot overrule ACIP's inclusion of a vaccine into VFC

Insurance/VFC Status 19-35 Month Old Children; 2008 NIS Insurance Module



Totals add to > 100% because some AI/AN children are enrolled in Medicaid

Gaps in Vaccine Financing for Underinsured Children in the United States

Grace M. Lee, MD, MPH

Jeanne M. Santoli, MD

Claire Hannan, MPH

Mark L. Messonnier, PhD

James E. Sabin, MD

Donna Rusinak

Charlene Gay

Susan M. Lett, MD, MPH

Tracy A. Lieu, MD, MPH

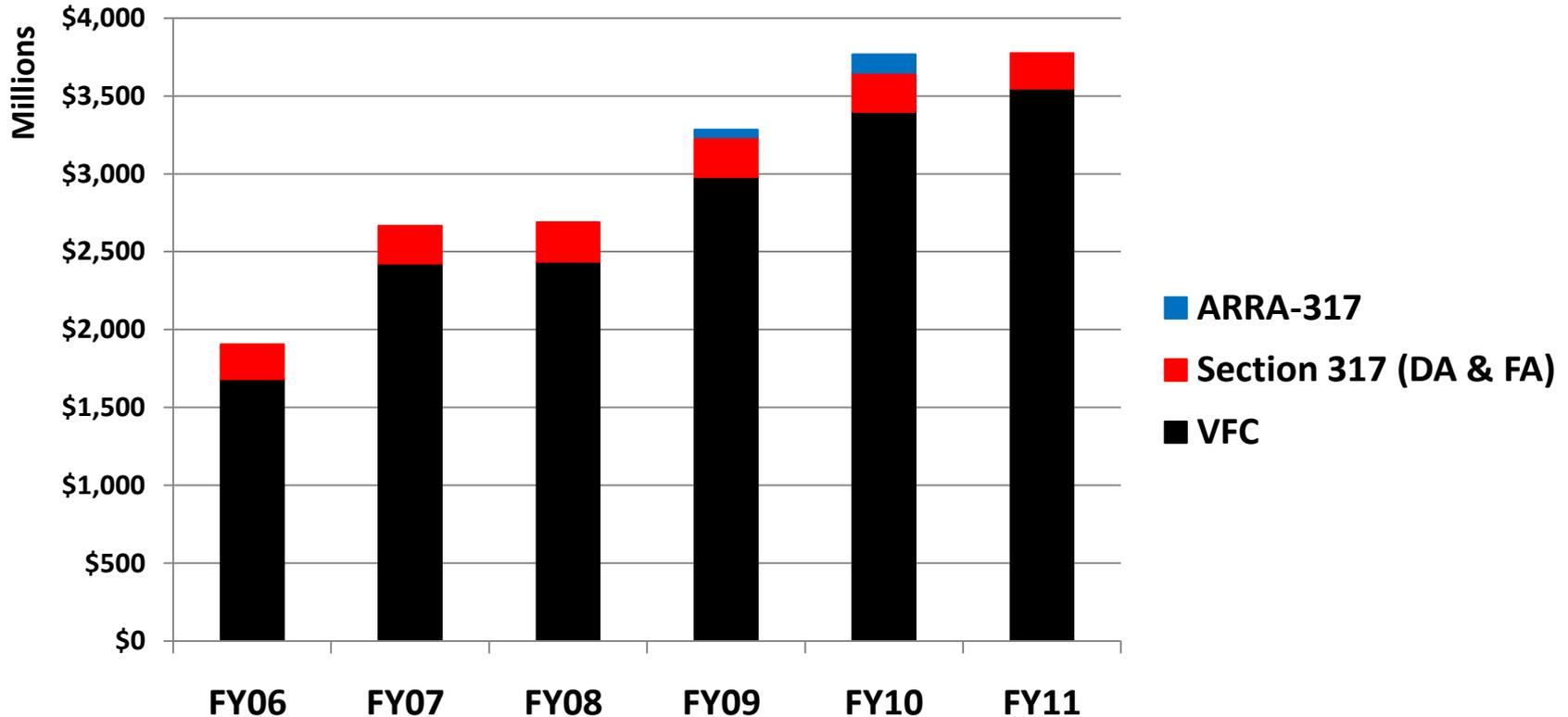
THE NUMBER AND COST OF NEW vaccines routinely recommended for children and adolescents has increased considerably since 2003. New or expanded

Context The number of new vaccines recommended for children and adolescents has nearly doubled during the past 5 years, and the cost of fully vaccinating a child has increased dramatically in the past decade. Anecdotal reports from state policy makers and clinicians suggest that new gaps have arisen in financial coverage of vaccines for children who are underinsured (ie, have private insurance that does not cover all recommended vaccines). In 2000, approximately 14% of children were underinsured for vaccines in the United States.

Objectives To describe variation among states in the provision of new vaccines to underinsured children and to identify barriers to state purchase and distribution of new vaccines.

Design, Setting, and Participants A 2-phase mixed-methods study of state immunization program managers in the United States. The first phase included 1-hour qualitative telephone interviews conducted from November to December 2005 with 9 program managers chosen to represent different state vaccine financing policies. The second phase incorporated findings from phase 1 to develop a national telephone and paper-based survey of state immunization program managers that was conducted from January to June 2006.

VFC and Section 317 Vaccine Funding, FY2006 – FY2011*

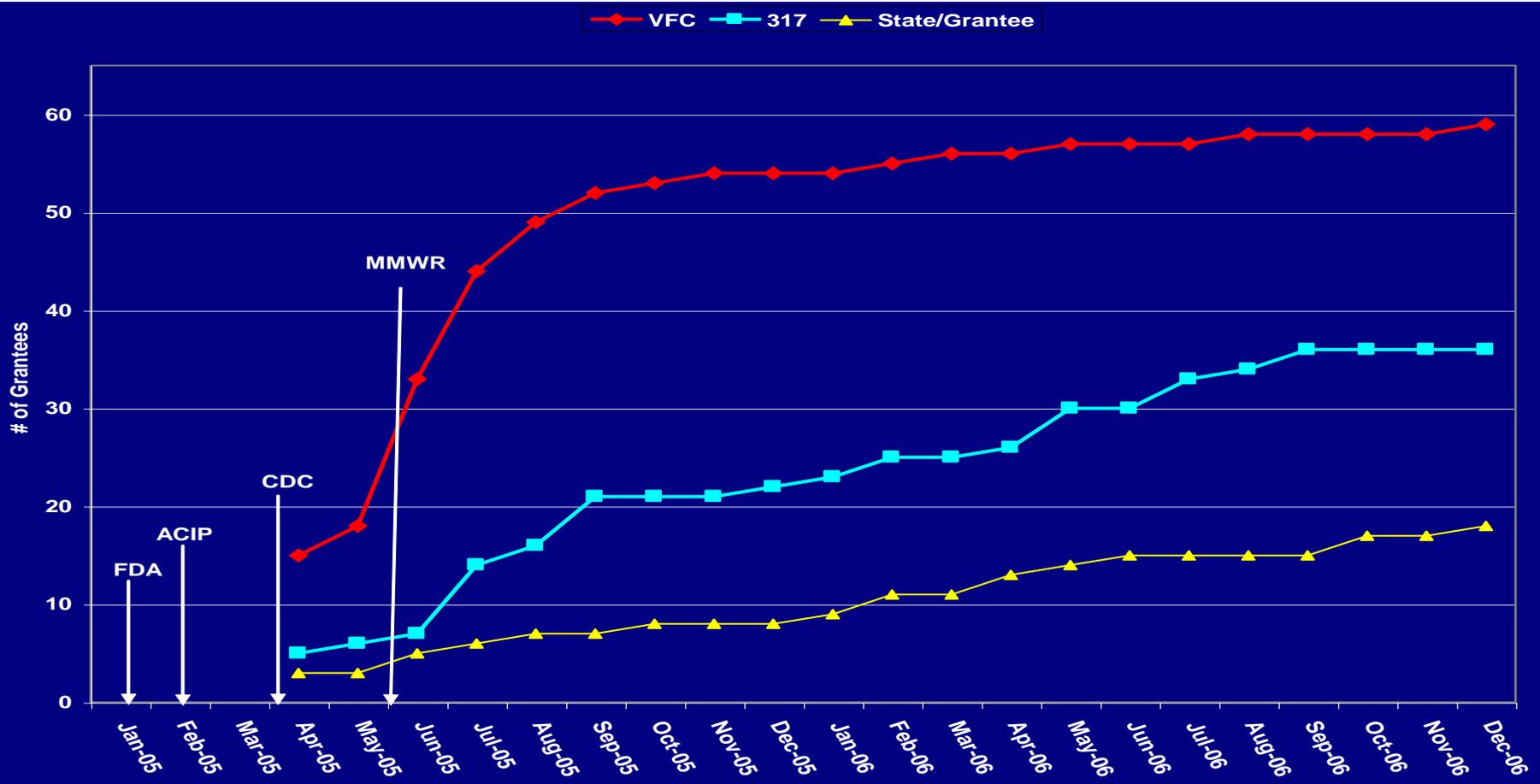


* Section 317 funding for FY2011 estimated as of May 2011

States Make Implementation Decisions Based on Financial Considerations

- Which vaccines are available for underinsured children and at which venues (public or private)?
- When are new VFC vaccines made available to VFC entitled children in the state?

Implementation of MCV4



It takes more than vaccine to vaccinate ...

IMMUNIZING CLINICIANS

It All Comes Together at the Doctors' Offices and Other Provider Sites

- Identify sources of private vaccine and negotiate prices with supplier and insurer
- Order VFC/state vaccine from the immunization program
- Separately account for public and private vaccine
- Screen for program eligibility at every visit
- Bill appropriately and only for private vaccine

Recommended Immunization Schedule for Persons Aged 0 Through 6 Years—United States • 2011

For those who fall behind or start late, see the catch-up schedule

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<i>Haemophilus influenzae</i> type b ⁴			Hib	Hib	Hib ⁴	Hib						
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Measles, Mumps, Rubella ⁹		MMR Series		
Varicella ¹⁰		Varicella Series		

Range of recommended ages for all children

Range of recommended ages for catch-up immunization

Range of recommended ages for certain high-risk groups

The Fine Print

1. Hepatitis B vaccine (HepB). (Minimum age: birth)

At birth:

- Administer monovalent HepB to all newborns before hospital discharge.
- If mother is hepatitis B surface antigen (HBsAg)-positive, administer HepB and 0.5 mL of hepatitis B immune globulin (HBIG) within 12 hours of birth.
- If mother's HBsAg status is unknown, administer HepB within 12 hours of birth. Determine mother's HBsAg status as soon as possible and, if HBsAg-positive, administer HBIG (no later than age 1 week).

After the birth dose:

- The HepB series should be completed with either monovalent HepB or a combination vaccine containing HepB. The combination vaccine should be administered at age 1 or 2 months. The no earlier than age 24 weeks.
- Infants born to HBsAg-positive mothers antibody to HBsAg (anti-HBs) after completion of the HepB series, at age 9 through 18 months (4-month dose).

4-month dose:

- Administration of 4 doses of HepB to infants and children containing HepB are administered at age 11 or 12 years.

2. Rotavirus vaccine (RV). (Minimum age: 2 months)

- Administer the first dose at age 6 through 14 weeks 6 days. Vaccination should not be given to children aged 15 weeks or older (i.e., 15 weeks 0 days).
- Administer the final dose in the series by age 8 months.
- If Rotarix[®] is administered at ages 2 and 4 months, a booster dose should be administered at age 11 through 15 years.

3. Diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP). (Minimum age: 6 weeks)

- The fourth dose may be administered as early as 18 months after the first dose, if at least 6 months have elapsed since the third dose.
- Administer the final dose in the series at age 11 through 12 years.

4. Haemophilus influenzae type b conjugate vaccine (Hib). (Minimum age: 6 weeks)

- If PRP-OMP (PedvaxHIB[®] or Comvax[®]) [Hib and 4 months, a dose at age 6 months and a booster dose at age 18 months].
- TriHIBit[®] (DTaP/Hib) should not be used because it cannot be used as the final dose in children aged 6 months through 18 months.

5. Pneumococcal vaccine. (Minimum age: 2 months)

- PCV is recommended for all children aged 2 through 59 months who are not completely vaccinated.

The Recommended Immunization Schedules for Persons Aged 0 Through 6 Years

DEPARTMENT OF HEALTH AND HUMAN SERVICES • CENTERS FOR DISEASE CONTROL AND PREVENTION

- Administer PPSV to children aged 2 years or older with certain underlying medical conditions (see *MMWR* 2000;49[No. RR-9]), including a cochlear implant.

6. Influenza vaccine. (Minimum age: 6 months for trivalent inactivated influenza vaccine [TIV]; 2 years for live, attenuated influenza vaccine [LAIV])

- Administer annually to children aged 6 months through 18 years.
- For healthy nonpregnant persons (i.e., those who do not have underlying medical conditions that predispose them to influenza complications) aged 2 through 49 years, either LAIV or TIV may be used.
- Children receiving TIV should receive 0.25 mL if aged 6 through 35 months or 0.5 mL if aged 3 years or older.

1. Tetanus and diphtheria toxoids and acellular pertussis vaccine (Tdap). (Minimum age: 10 years for BOOSTRIX[®] and 11 years for ADACEL[®])

- Administer at age 11 or 12 years for those who have completed the recommended childhood DTP/DTaP vaccination series and have not received a tetanus and diphtheria toxoid (Td) booster dose.
- Persons aged 13 through 18 years who have not received Tdap should receive a dose.
- A 5-year interval from the last Td dose is encouraged when Tdap is used as a booster dose; however, a shorter interval may be used if pertussis immunity is needed.

2. Human papillomavirus vaccine (HPV). (Minimum age: 9 years)

- Administer the first dose to females at age 11 or 12 years.
- Administer the second dose 2 months after the first dose and the third dose 6 months after the first dose (at least 24 weeks after the first dose).
- Administer the series to females at age 13 through 18 years if not previously vaccinated.

3. Meningococcal conjugate vaccine (MCV).

- Administer at age 11 or 12 years, or at age 13 through 18 years if not previously vaccinated.
- Administer to previously unvaccinated college freshmen attending a dormitory.
- MCV is recommended for children aged 2 through 18 years with terminal complement deficiency, anatomic asplenia, and certain other groups at high risk. See *MMWR* 2005;54(No. RR-7).
- Persons who received MPSV 5 or more years prior to MCV should be reimmunized with MCV.

4. Influenza vaccine.

- Administer annually to children aged 6 months through 18 years.
- For healthy nonpregnant persons (i.e., those who do not have underlying medical conditions that predispose them to influenza complications) aged 2 through 49 years, either LAIV or TIV may be used.
- Administer 2 doses (separated by at least 4 weeks) to children aged 6 months through 35 months who are receiving influenza vaccine for the first time or who were vaccinated for the first time during an influenza season but only received 1 dose.

The Recommended Immunization Schedules for Persons Aged 0 Through 6 Years

DEPARTMENT OF HEALTH AND HUMAN SERVICES • CENTERS FOR DISEASE CONTROL AND PREVENTION

5. Pneumococcal polysaccharide vaccine (PPSV).

- Administer to children with certain underlying medical conditions (see *MMWR* 1997;46[No. RR-8]), including a cochlear implant. A single revaccination should be administered to children with functional or anatomic asplenia or other immunocompromising condition after 5 years.

6. Hepatitis A vaccine (HepA).

- Administer 2 doses at least 6 months apart.
- HepA is recommended for children older than 1 year who live in areas where vaccination programs target older children or who are at increased risk of infection. See *MMWR* 2006;55(No. RR-7).

7. Hepatitis B vaccine (HepB).

- Administer the 3-dose series to those not previously vaccinated.
- A 2-dose series (separated by at least 4 months) of adult formulation Recombivax HB[®] is licensed for children aged 11 through 15 years.

8. Inactivated poliovirus vaccine (IPV).

- For children who received an all-IPV or all-oral poliovirus (OPV) series, a fourth dose is not necessary if the third dose was administered at age 4 years or older.
- If both OPV and IPV were administered as part of a series, a total of 4 doses should be administered.

1. Hepatitis B vaccine (HepB).

- Administer the 3-dose series to those not previously vaccinated.
- A 2-dose series (separated by at least 4 months) of adult formulation Recombivax HB[®] is licensed for children aged 11 through 15 years.

2. Rotavirus vaccine (RV).

- The maximum age for the first dose is 14 weeks 6 days. Vaccination should not be initiated for infants aged 15 weeks or older (i.e., 15 weeks 0 days or older).
- Administer the final dose in the series by age 8 months 0 days.
- If Rotarix[®] was administered for the first and second doses, a third dose is not indicated.

3. Diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP).

- The fifth dose is not necessary if the fourth dose was administered at age 4 years or older.

4. Haemophilus influenzae type b conjugate vaccine (Hib).

- Hib vaccine is not generally recommended for persons aged 5 years or older. No efficacy data are available on which to base a recommendation concerning use of Hib vaccine for older children and adults. However, studies suggest good immunogenicity in persons who have sickle cell disease, leukemia, or HIV infection, or who have had a splenectomy; administering 1 dose of Hib vaccine to these persons is not contraindicated.
- If the first 2 doses were PRP-OMP (PedvaxHIB[®] or Comvax[®]), and administered at age 11 months or younger, the third (and final) dose should be administered at age 12 through 15 months and at least 8 weeks after the second dose.
- If the first dose was administered at age 7 through 11 months, administer 2 doses separated by 4 weeks and a final dose at age 12 through 15 months.

5. Pneumococcal vaccine.

- Administer 1 dose of pneumococcal conjugate vaccine (PCV) to all healthy children aged 24 through 59 months who have not received at least 1 dose of PCV on or after age 12 months.
- For children aged 24 through 59 months with underlying medical conditions, administer 1 dose of PCV if 3 doses were received previously or administer 2 doses of PCV at least 8 weeks apart if fewer than 3 doses were received previously.
- Administer pneumococcal polysaccharide vaccine (PPSV) to children aged 2 years or older with certain underlying medical conditions (see *MMWR* 2000;49[No. RR-9]), including a cochlear implant, at least 8 weeks after the last dose of PCV.

6. Inactivated poliovirus vaccine (IPV).

- For children who received an all-IPV or all-oral poliovirus (OPV) series, a fourth dose is not necessary if the third dose was administered at age 4 years or older.
- If both OPV and IPV were administered as part of a series, a total of 4 doses should be administered, regardless of the child's current age.

7. Measles, mumps, and rubella vaccine (MMR).

- Administer the second dose at age 4 through 6 years. However, the second dose may be administered before age 4, provided at least 28 days have elapsed since the first dose.
- If not previously vaccinated, administer 2 doses with at least 28 days between doses.

8. Varicella vaccine.

- Administer the second dose at age 4 through 6 years. However, the second dose may be administered before age 4, provided at least 3 months have elapsed since the first dose.
- For persons aged 12 months through 12 years, the minimum interval between doses is 3 months. However, if the second dose was administered at least 28 days after the first dose, it can be accepted as valid.
- For persons aged 13 years and older, the minimum interval between doses is 28 days.

9. Hepatitis A vaccine (HepA).

- HepA is recommended for children older than 1 year who live in areas where vaccination programs target older children or who are at increased risk of infection. See *MMWR* 2006;55(No. RR-7).

10. Tetanus and diphtheria toxoids vaccine (Td) and tetanus and diphtheria toxoids and acellular pertussis vaccine (Tdap).

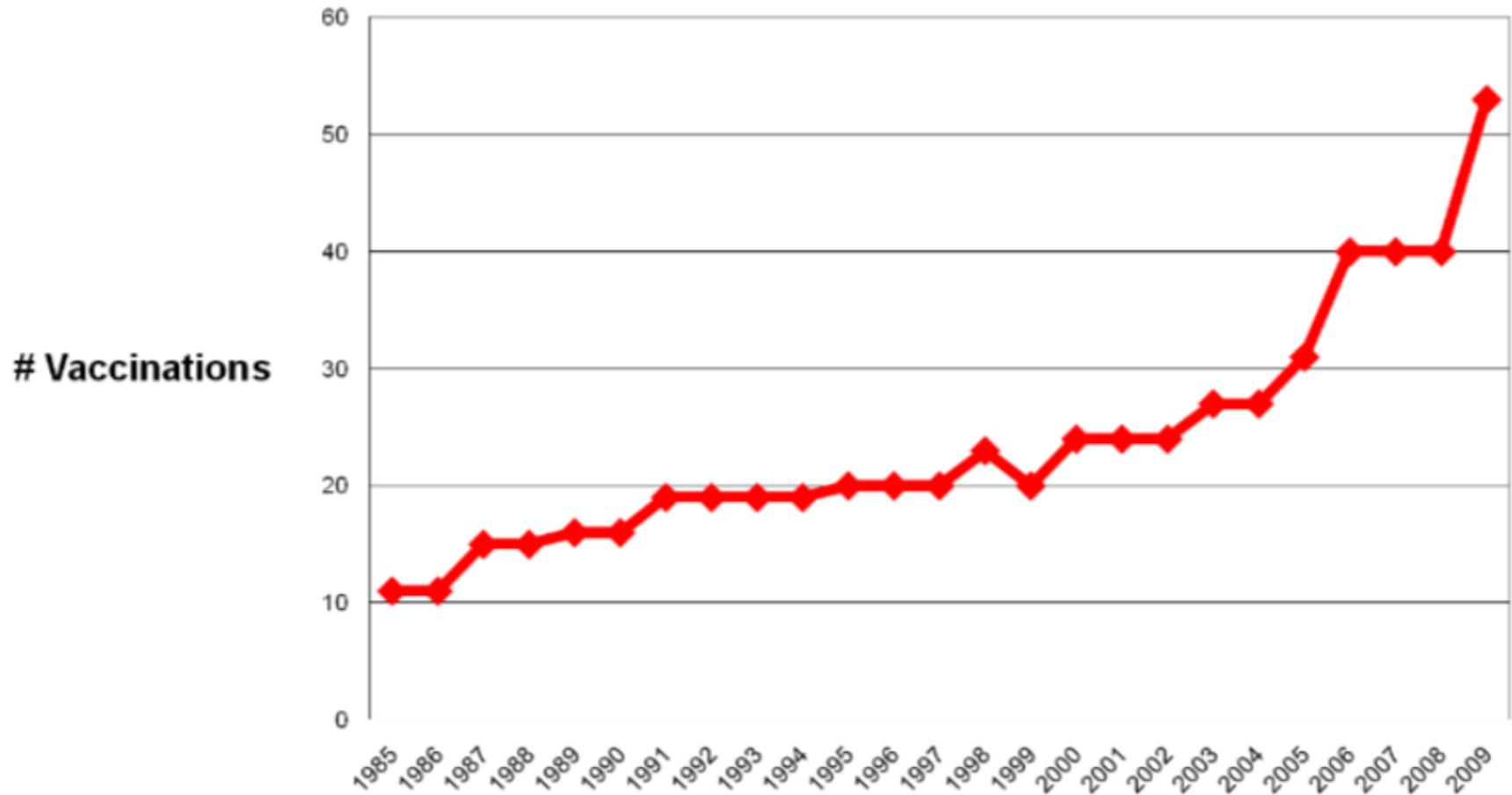
- Doses of DTaP are counted as part of the Td/Tdap series.
- Tdap should be substituted for a single dose of Td in the catch-up series or as a booster for children aged 10 through 18 years; use Td for other doses.

11. Human papillomavirus vaccine (HPV).

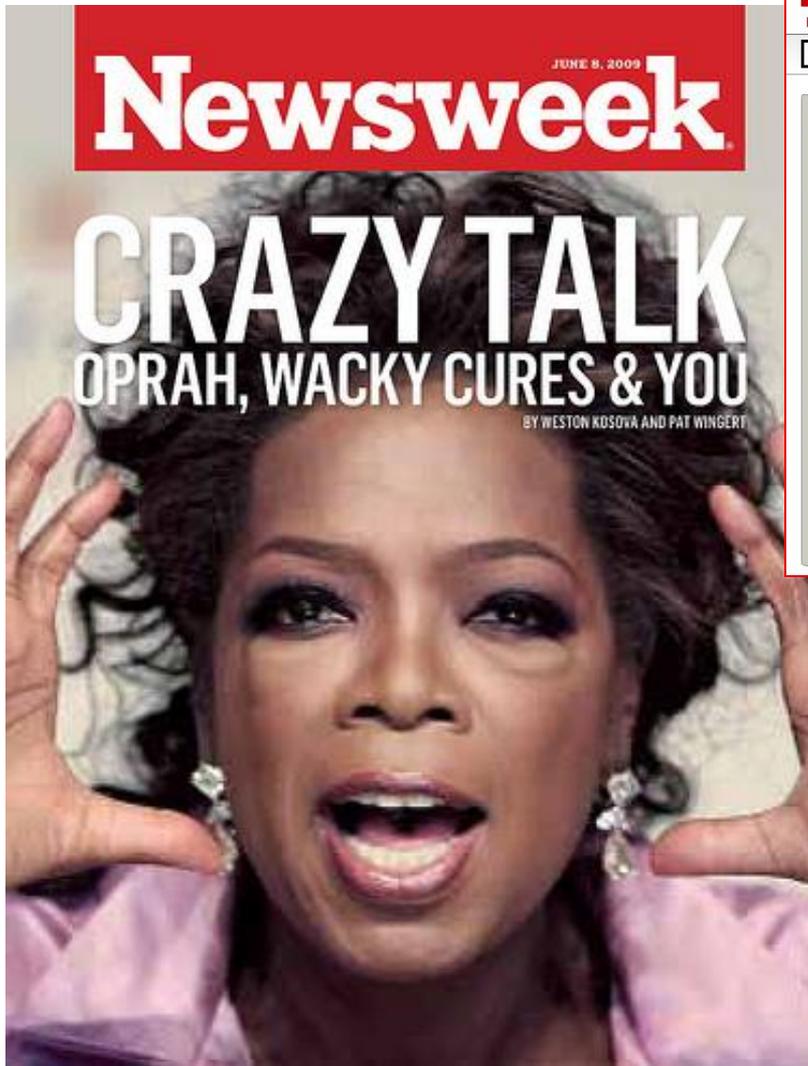
- Administer the series to females at age 13 through 18 years if not previously vaccinated.
- Use recommended routine dosing intervals for series catch-up (i.e., the second and third doses should be administered at 2 and 6 months after the first dose). However, the minimum interval between the first and second doses is 4 weeks. The minimum interval between the second and third doses is 12 weeks, and the third dose should be given at least 24 weeks after the first dose.

Information about reporting reactions after immunization is available online at <http://www.vaers.hhs.gov> or by telephone, 800-822-7967. Suspected cases of vaccine-preventable diseases should be reported to the state or local health department. Additional information, including precautions and contraindications for immunization, is available from the National Center for Immunization and Respiratory Diseases at <http://www.cdc.gov/vaccines> or telephone, 800-CDC-INFO (800-232-4636).

Number of Recommended Vaccinations Per Child, 1985 to 2009*



* Does not include recent combination vaccines



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Newsweek "We have got to be a leaner, meaner government" Sen. Blanche Lincoln **POLITICO**

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Best Life or Risky Advice?

View 2 of 6 PAUSE Intro 1 2 3 4 5 6

Dr. Christiane Northrup:
A Dartmouth-trained OB-GYN, Dr. Christiane Northrup holds a special place in Oprah's constellation of regular guests. She stresses alternative therapies and connections between the soul and the body that she believes conventional doctors overlook but that she can see. When Oprah had trouble with her thyroid, she brought Northrup on the show to explain it to her audience. Northrup advised that Oprah's "soul" was using her thyroid to signal "what's going on with your spirit ... It's your soul bringing it to your attention." Northrup also warned Oprah's audience against a new vaccine that protects against HPV, a sexually transmitted virus

SCROLL FOR MORE ▼

GARDASIL Human Papillomavirus Vaccine (Types 6, 11, 16, 18) (Recombinant, adjuvanted)
Hummer Papillomavirus-Impfstoff (Typen 6, 11, 16, 18) (Rekombinant, adjuvantiert)

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Best Life or Risky Advice?

View 6 of 6 PAUSE Intro 1 2 3 4 5 6

Jenny McCarthy:
In 2007, Oprah invited Jenny McCarthy, the Playboy model and actress, to her stage to discuss her struggle to help her young son who had been diagnosed with autism, as well as her controversial ideas about a possible link between autism and childhood vaccines. While Oprah praised McCarthy's bravery and plugged her book, she failed to invite a physician or scientist to provide balance by explaining to her audience the many studies that contradict the vaccines-autism link. McCarthy soon became a semiregular on Oprah's show and Web site, and she will soon launch her own talk show produced by Oprah's company.

SCROLL FOR MORE ▼

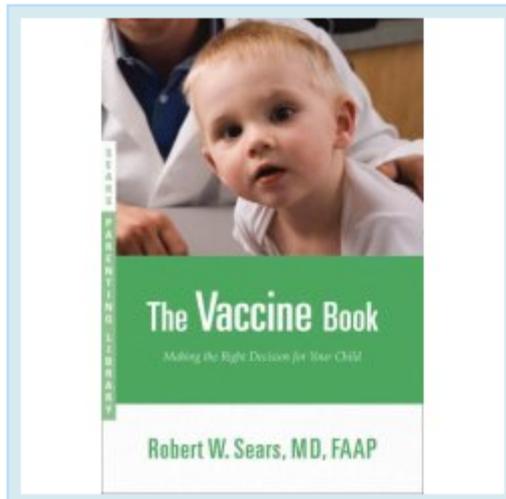
The Vaccine Book by Dr. Sears Offers A Safer Vaccine Schedule



Written by [Susie Kim](#)

Published on April 25th, 2008 in [Health](#)

5 Comments



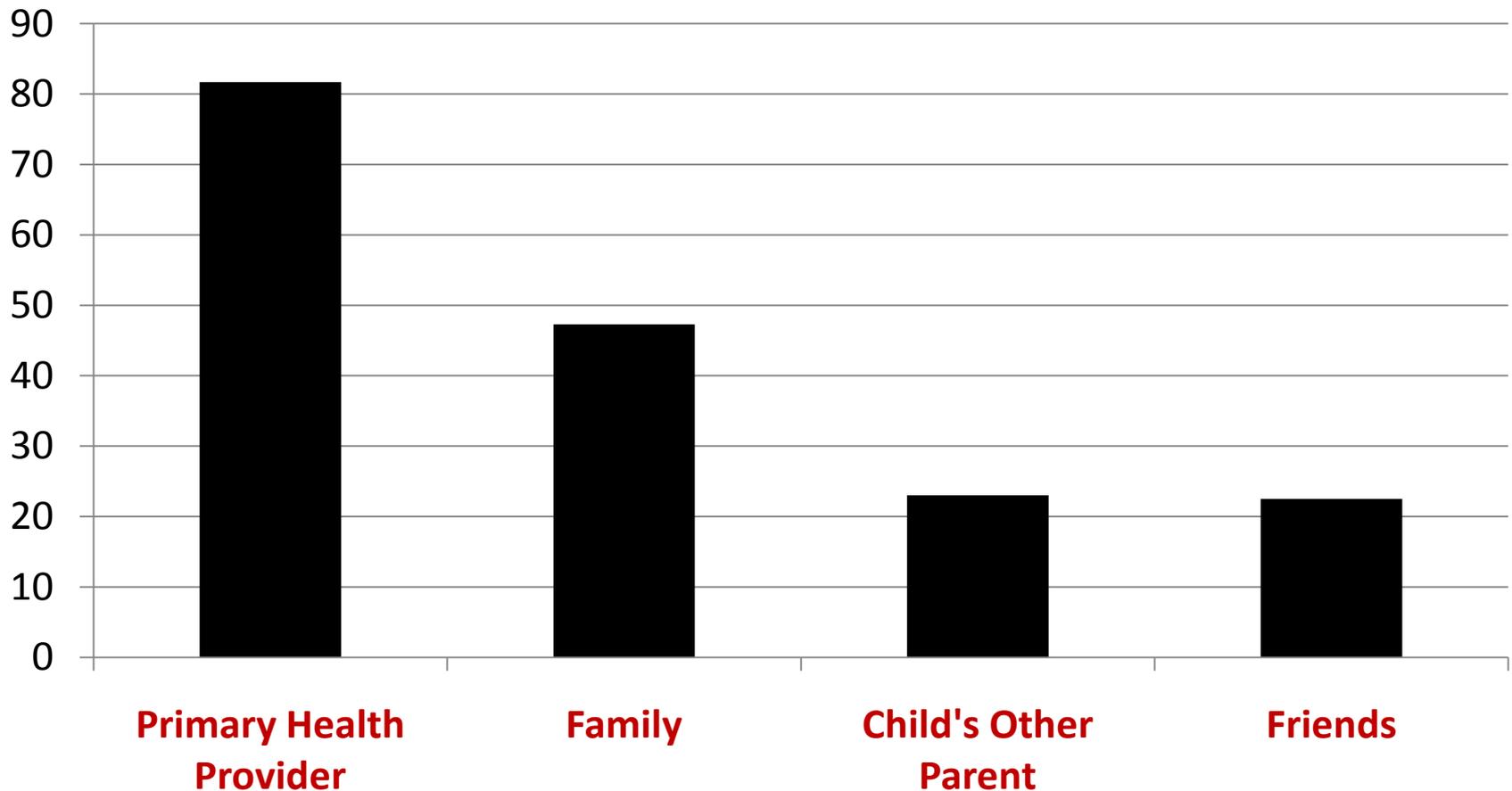
The big question for new parents was to either [breastfeed](#) or formula feed, but now a days with concern over side effects of [vaccination](#) and [supposed link to autism](#); the bigger question remains, [should you vaccinate your child](#)? For some states such as Mississippi and West Virginia, there is no choice for parents to make, it's a resounding yes. But over 20 states allow children to be unvaccinated and almost all states allow unvaccination for religious reasons.

With my concern over recent controversy of vaccines (especially MMR) being linked to autism, I ordered [The Vaccine Book](#) by [Dr. Robert Sears](#).

The book itself offer invaluable resource over each vaccination including:

- How common or rate, as well as how serious, each disease is.
- How each vaccine is made and what its ingredients are
- Which ingredients are potentially controversial
- Possible side effects
- Which brand is considered the safest

Parent's Preferred Source of Immunization Information



Number of Vaccines in the Routine Childhood and Adolescent Immunization Schedule

1985

Measles
Rubella
Mumps
Diphtheria
Tetanus
Pertussis
Polio

7

1994

Measles
Rubella
Mumps
Diphtheria
Tetanus
Pertussis
Polio
Hib (infant)
HepB

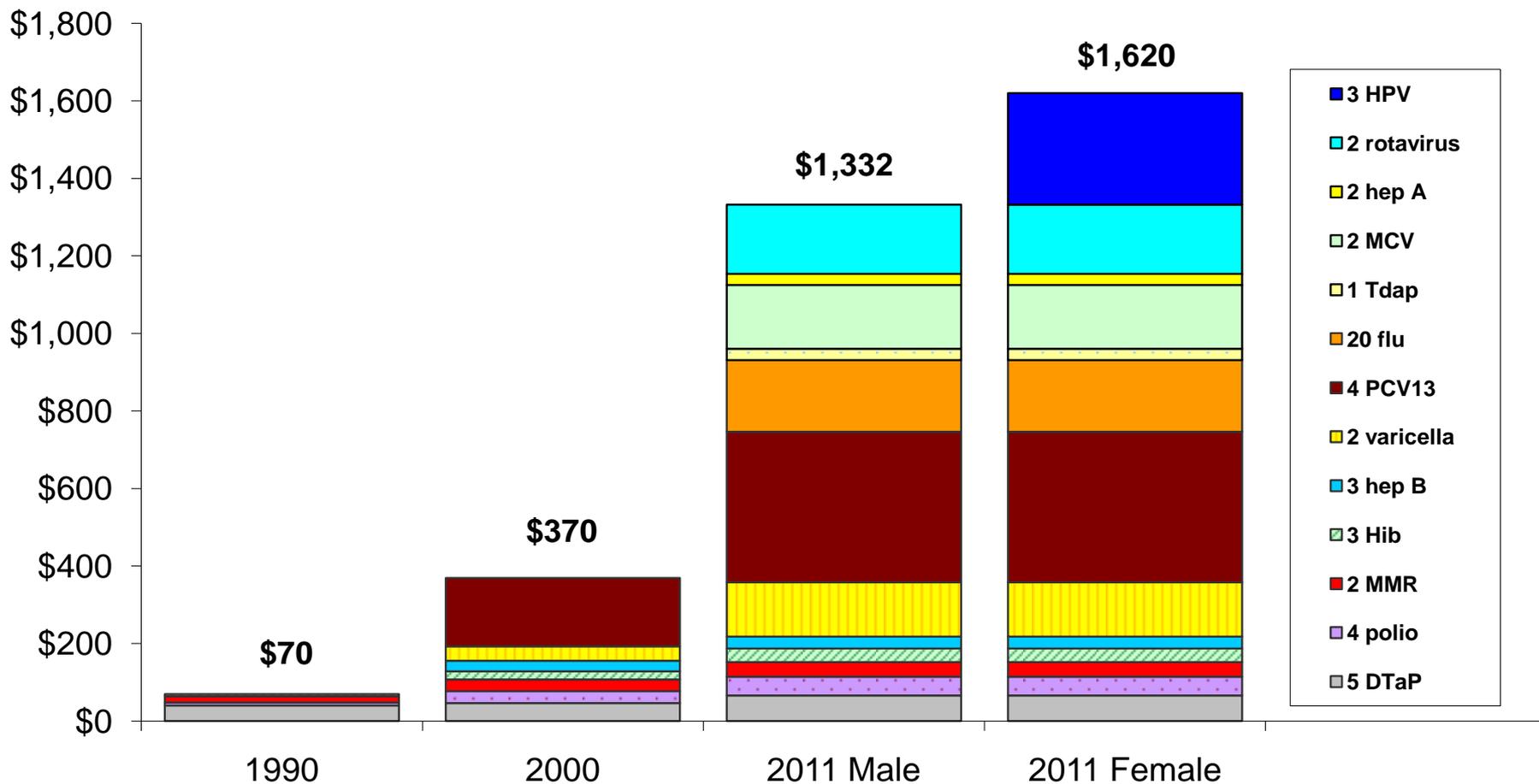
9

2010

Measles
Rubella
Mumps
Diphtheria
Tetanus
Pertussis
Polio
Hib (infant)
HepB
Varicella
Pneumococcal disease
Influenza
Meningococcal disease
HepA
Rotavirus
HPV

16

Cost to Vaccinate One Child with Vaccines Universally Recommended from Birth Through 18 Years of Age: 1990, 2000, and 2011



2011 represents minimum cost to vaccinate a child (birth through 18); exception is no preservative influenza vaccine, which is included for children 6-47 months of age.

HPV excluded for boys because it is not routinely recommended by the ACIP.

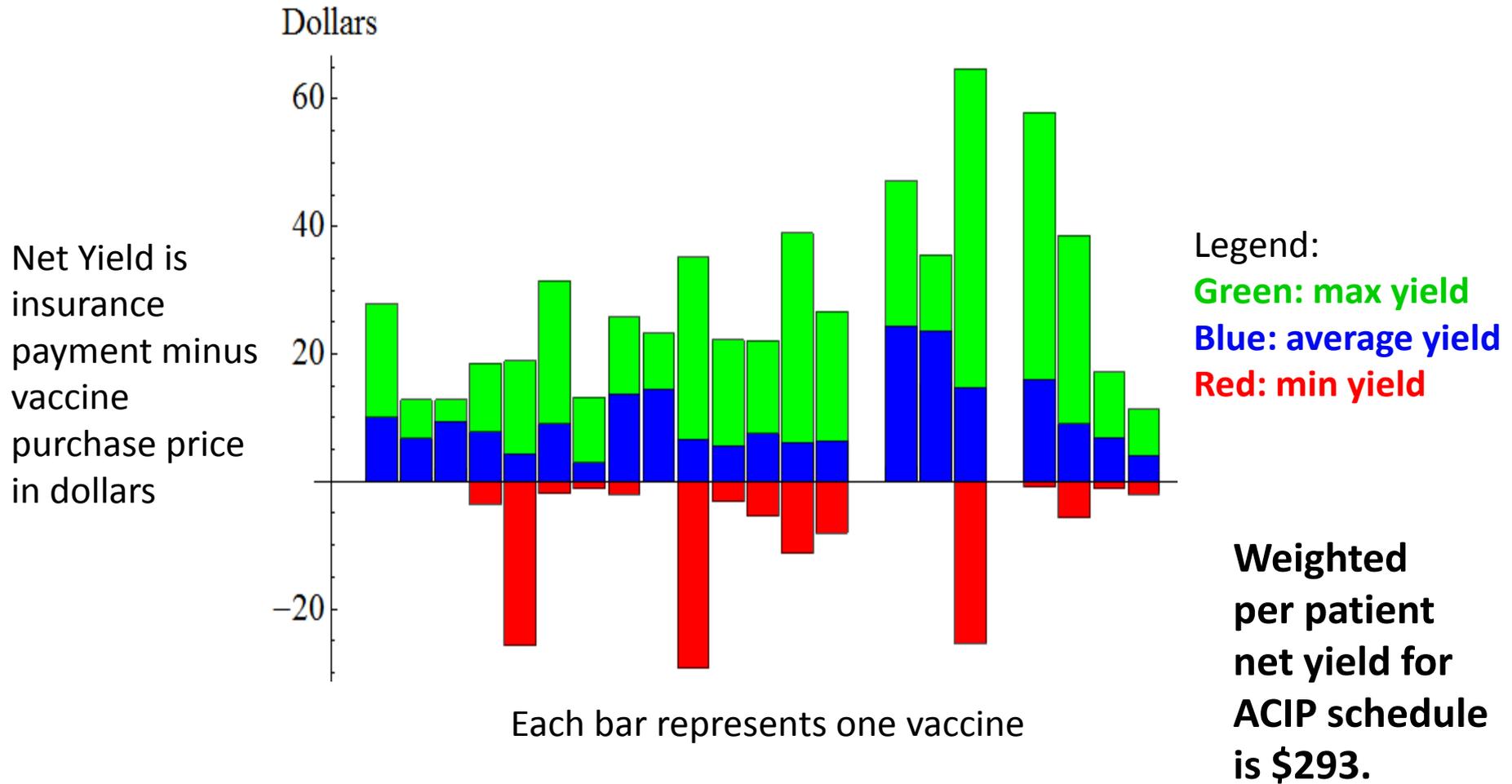
Federal contract prices as of February 1, 1990, September 27, 2000, and April 1, 2011.

Cash Value of Private-purchase Vaccine Inventories and Orders

	Cash Value of Inventories	Cash Value of Inventories and Orders
Average**	\$133,644	\$274,644
Median**	\$58,107	\$123,500
Maximum	\$846,704	\$1,889,111

** Median and Average brought down by practices with high numbers of VFC-eligible patients.

Net Yield for Private Purchase Vaccines



Private Insurance Vaccine Administration Payments

TABLE 5 Vaccine Administration Fee Reimbursement From Most Common Payer

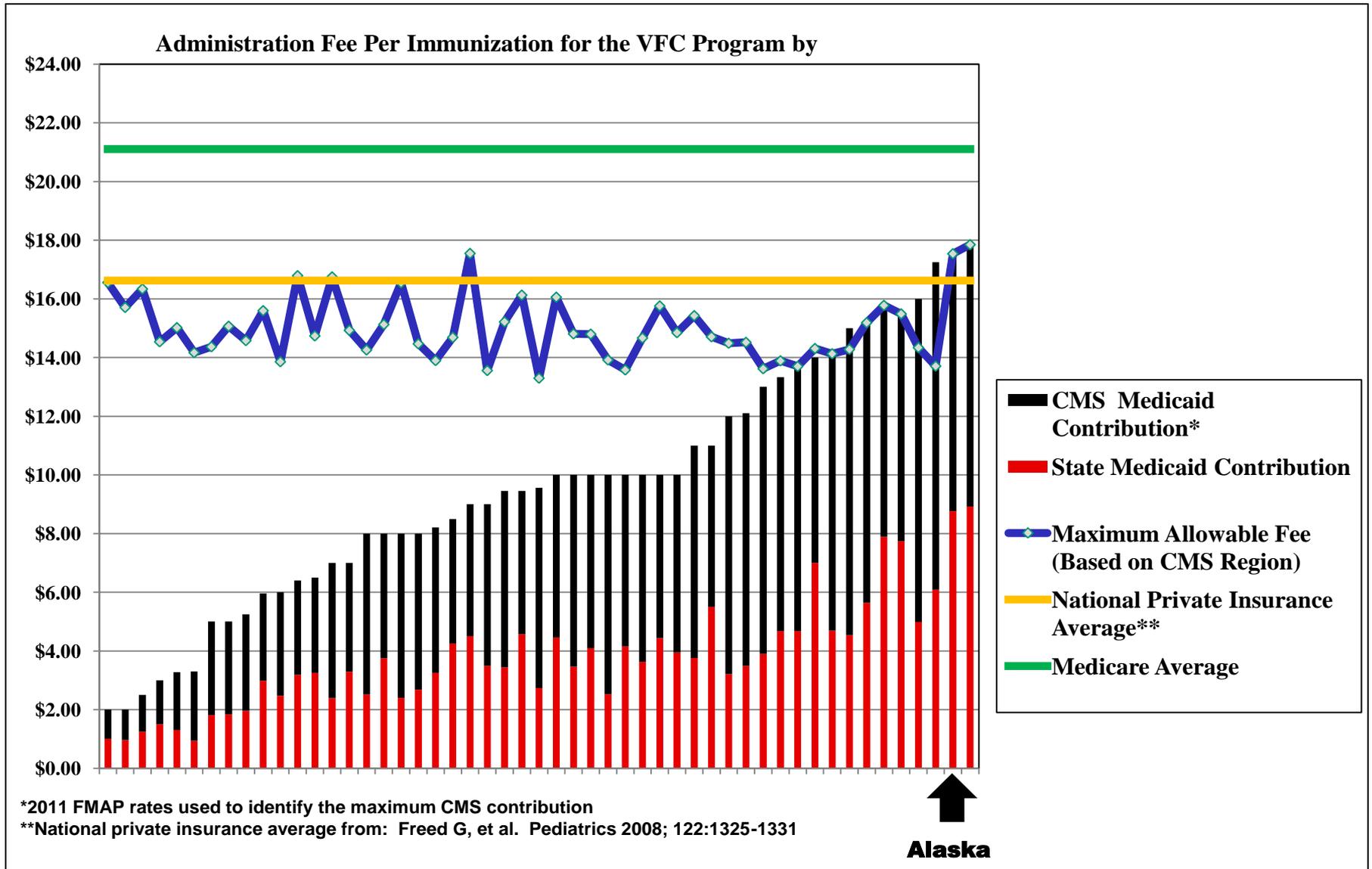
	Administration Fee Reimbursement	
	First Dose (CPT 90471) ^a	Subsequent Doses (CPT 90472) ^b
Mean, \$	16.62	11.63
Maximum, \$	26.55	37.20
Minimum, \$	3.87	3.36

CPT indicates Current Procedural Terminology.

^a Calculations exclude one instance where the most common payer did not reimburse for first dose administration.

^b Calculations exclude three instances where the most common payer did not reimburse for administration of subsequent doses.

VFC, average private insurance, and average Medicare vaccine administration rates



Association Between Medicaid Reimbursement and Child Influenza Vaccination Rates



WHAT'S KNOWN ON THIS SUBJECT: Although experts have suggested that provider reimbursement rates may affect childhood vaccination levels, this relationship is not well understood.



WHAT THIS STUDY ADDS: This is the first study, to our knowledge, estimating the association between Medicaid provider reimbursement rates (for vaccine administration) and childhood influenza vaccination rates.

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KEY WORDS

Medicaid reimbursement, influenza vaccination

ABBREVIATIONS

ACIP—Advisory Committee on Immunization Practices

NIS—National Immunization Survey

OR—odds ratio

CI—confidence interval

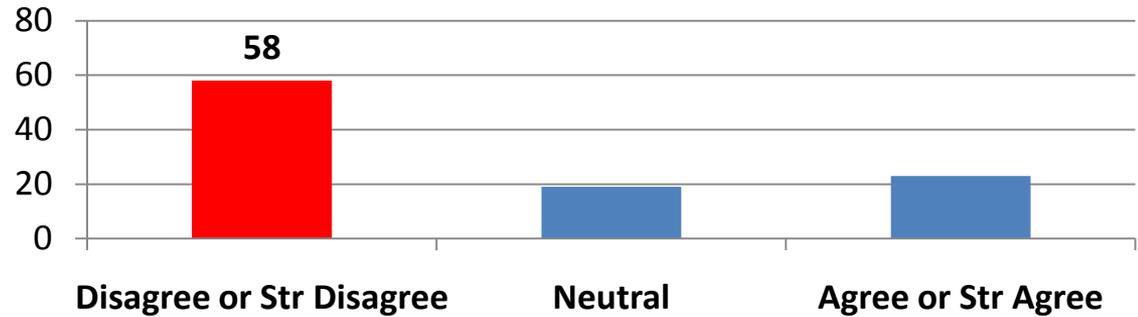
www.pediatrics.org/cgi/doi/10.1542/peds.2009-3514

abstract

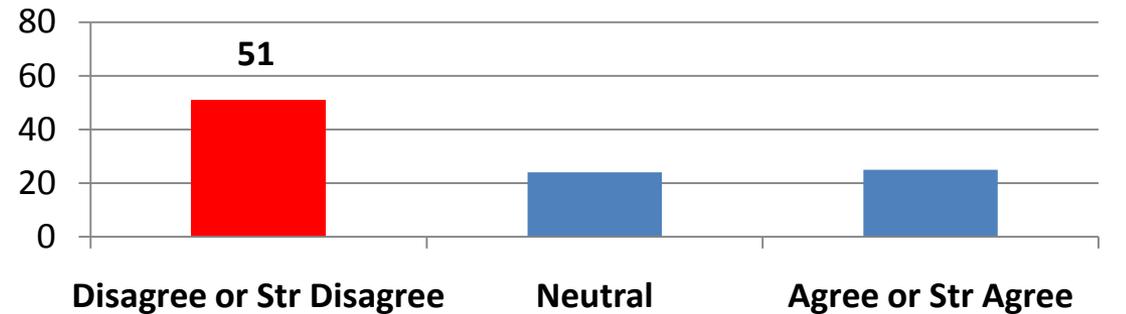


A \$10 increase, from \$8 per influenza vaccination (the US average) to \$18 (the highest state reimbursement), in the Medicaid reimbursement rate was associated with 6.0-, 9.2-, and 6.4-percentage point increases in full vaccination rates among poor children in the 2006, 2007, and 2008 NIS analyses, respectively.

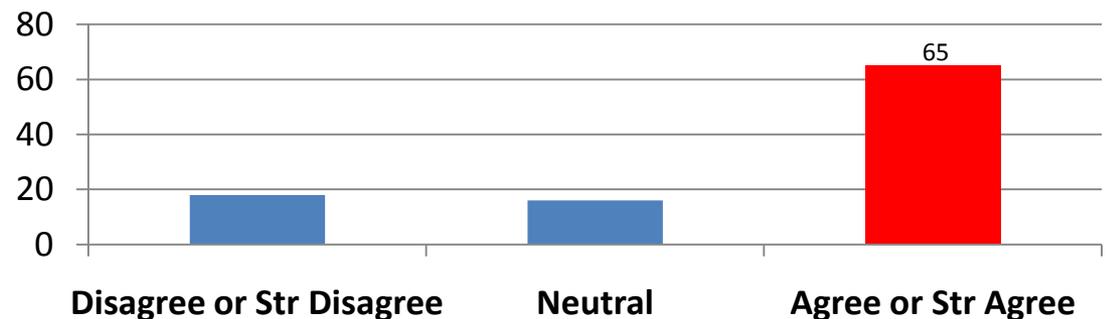
Reimbursement for vaccine purchase is adequate



Reimbursement for vaccine Administration is adequate



We would not give a vaccine if reimbursement was less than the purchase price



Pediatrician and Family Physician Attitudes and Practices Toward the Business Side of Vaccination

- Results from a 2008 survey of pediatricians and family physicians by Gary Freed (University of Michigan)
 - Half of practices delayed purchase of new vaccine for financial reason
 - Half of practices reported decreasing vaccination revenues during previous three years
 - One fifth of practices said reimbursement was adequate
 - **One tenth of practices indicated that they have seriously considered stopping providing immunizations during the previous year**

Program Performance

STATUS OF CHILDHOOD IMMUNIZATION

Comparison of 20th Century Annual Morbidity and Current Morbidity: Vaccine-Preventable Diseases

Disease	20th Century Annual Morbidity [†]	2010 Reported Cases ^{††}	Percent Decrease
Smallpox	29,005	0	100%
Diphtheria	21,053	0	100%
Measles	530,217	61	> 99%
Mumps	162,344	2,528	98%
Pertussis	200,752	21,291	89%
Polio (paralytic)	16,316	0	100%
Rubella	47,745	6	> 99%
Congenital Rubella Syndrome	152	0	100%
Tetanus	580	8	99%
<i>Haemophilus influenzae</i>	20,000	270*	99%

[†]Source: JAMA. 2007;298(18):2155-2163

^{††}Source: CDC. MMWR January 7, 2011;59(52);1704-1716. (provisional MMWR week 52 data)

* 16 type b and 254 unknown serotype (< 5 years of age)

Comparison of Pre-Vaccine Era Estimated Annual Morbidity or Mortality with Current Estimate: Vaccine-Preventable Diseases

Disease	Pre-Vaccine Era Annual Estimate	2009 Estimate	Percent Decrease
Hepatitis A	117,333 †	8,493	93%
Hepatitis B (acute)	66,232 †	9,419	86%
Pneumococcus (invasive)			
all ages	63,067 †	44,000 #	30%
< 5 years of age	16,069 †	4,700##	72%
Rotavirus (hospitalizations, < 3 years of age)	62,500 † †	28,125###	55%
Varicella	4,085,120 †	408,512	90%

† Source: JAMA. 2007;298(18):2155-2163

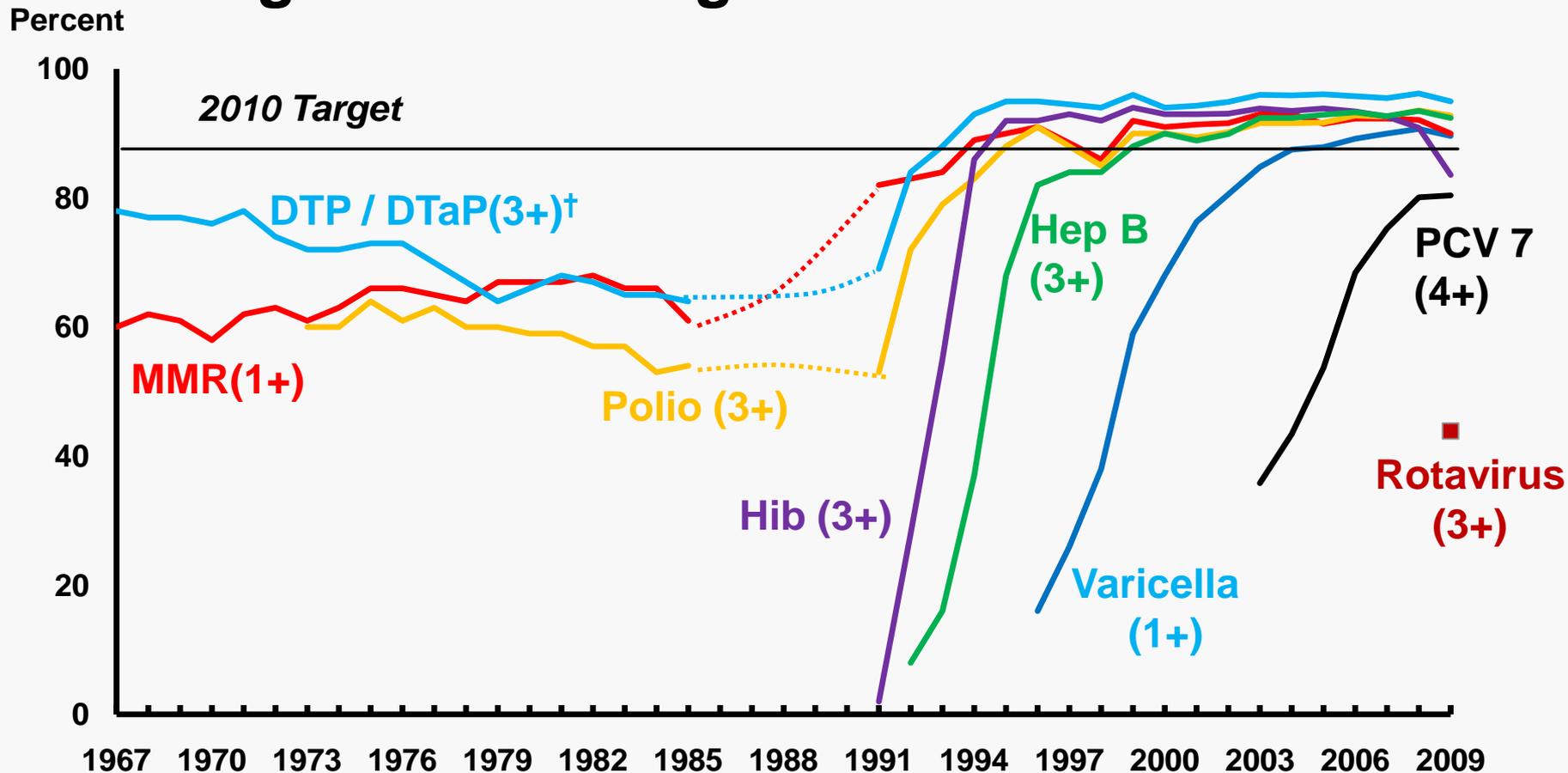
†† Source: CDC. MMWR. February 6, 2009 / 58(RR02);1-25

Source: CDC. Active Bacterial Core surveillance Report; *S. pneumoniae* 2009. <http://www.cdc.gov/abcs/reports-findings/survreports/spneu09.html>

Source: 2009 Active Bacterial Core surveillance

Source: New Vaccine Surveillance Network (unpublished)

Increasing Vaccine-Specific Coverage Rates Among Preschool-Aged Children: 1967 - 2009

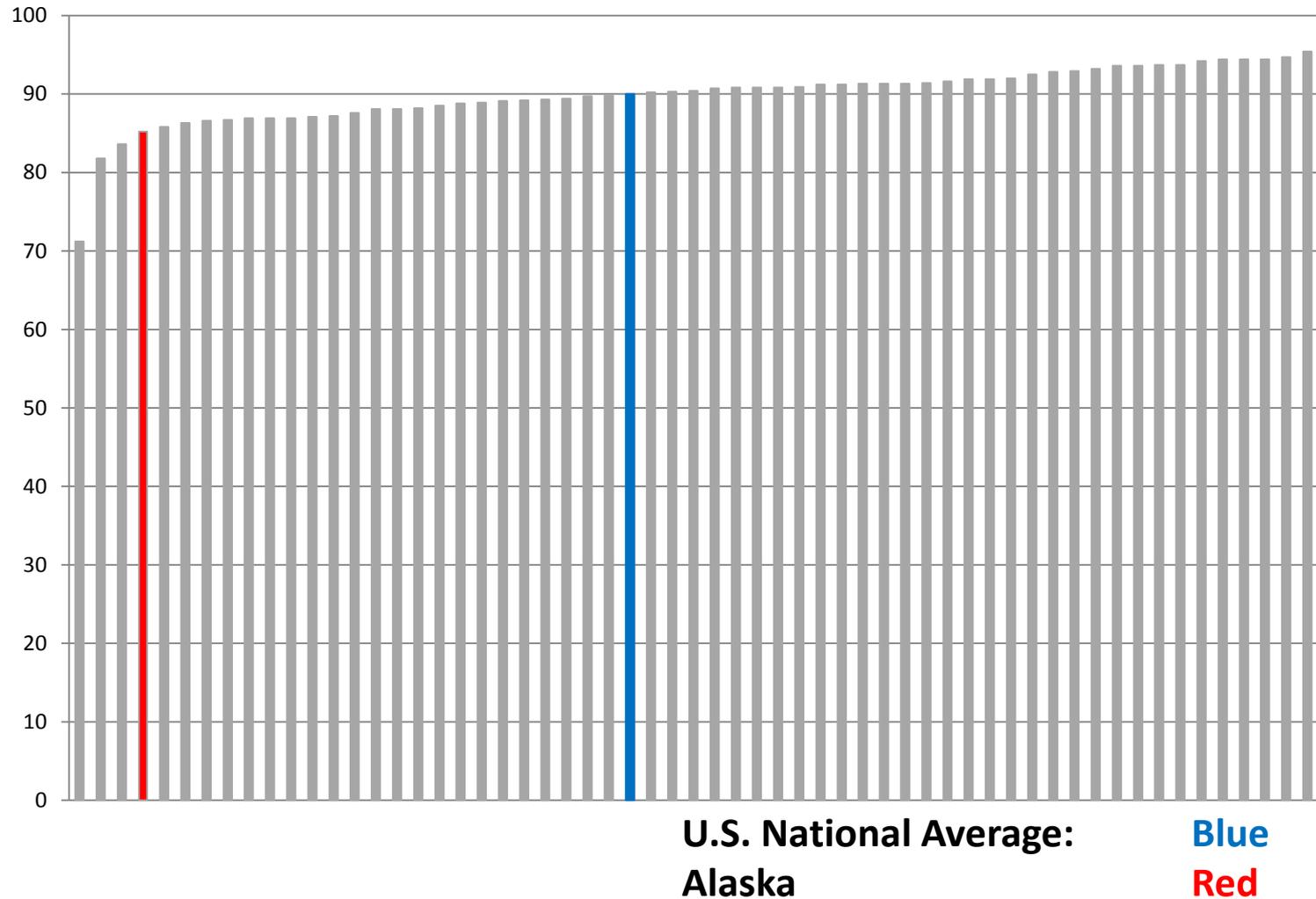


† DTP(3+) is not a Healthy People 2010 objective. DTaP(4) is used to assess Healthy People 2010 objectives.

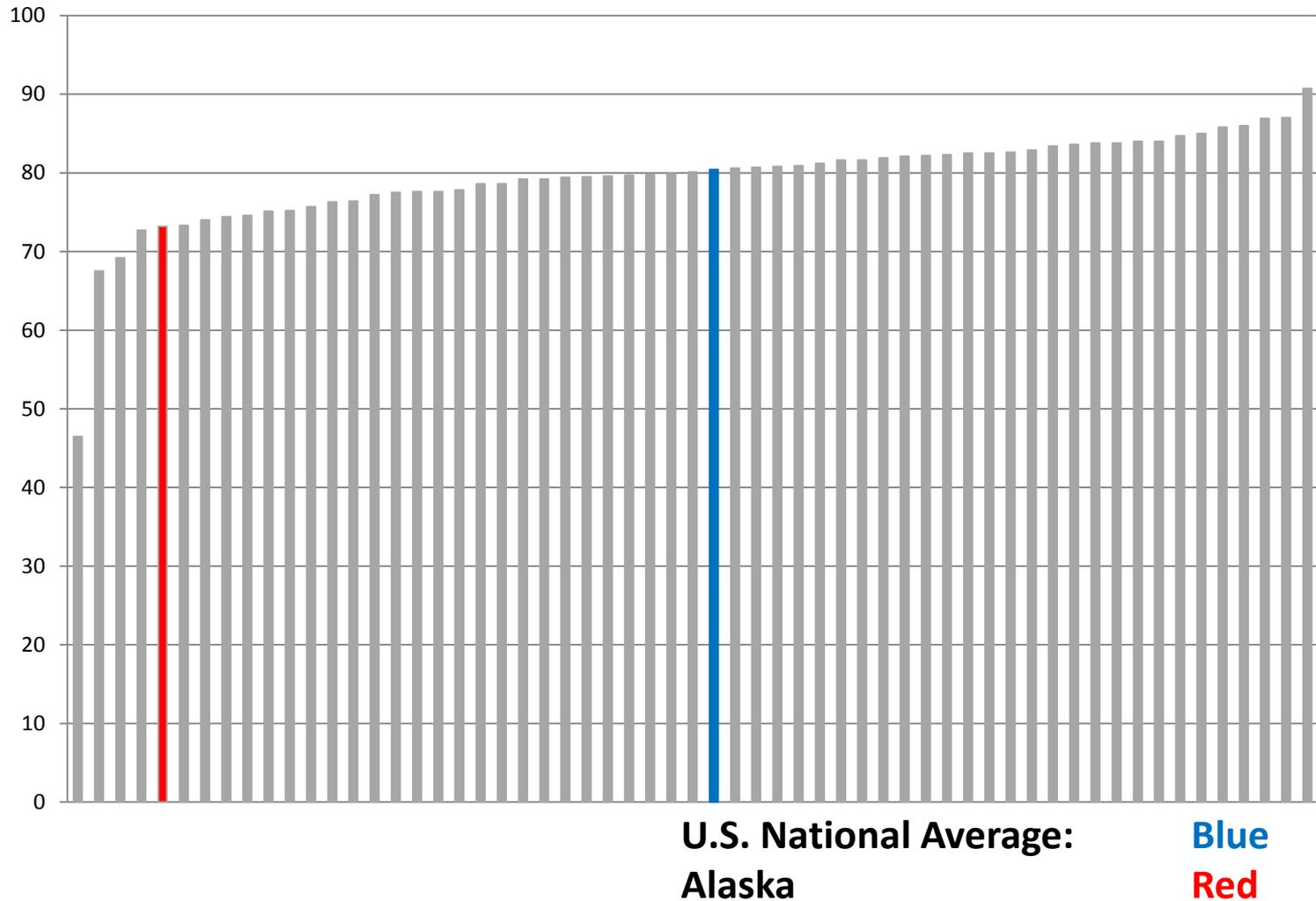
Note: Children in the USIS and NHIS were 24-35 months of age. Children in the NIS were 19-35 months of age.

Source: USIS (1967-1985), NHIS (1991-1993) CDC, NCHS, and NIS (1994-2009), CDC, NIP and NCHS; No data from 1986-1990 due to cancellation of USIS because of budget reductions.

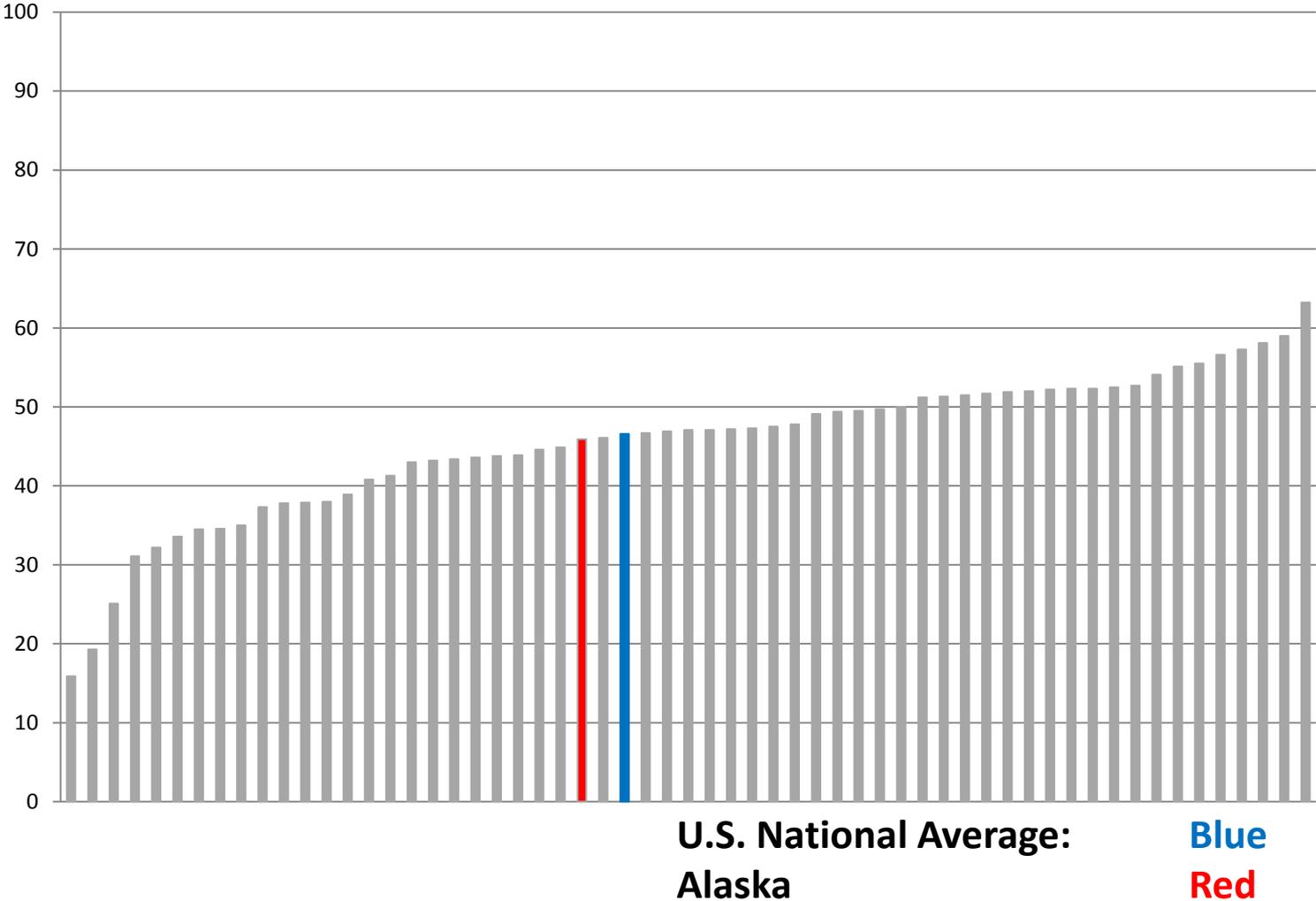
MMR Coverage Levels by State, 19-35 Months of Age; NIS 2009



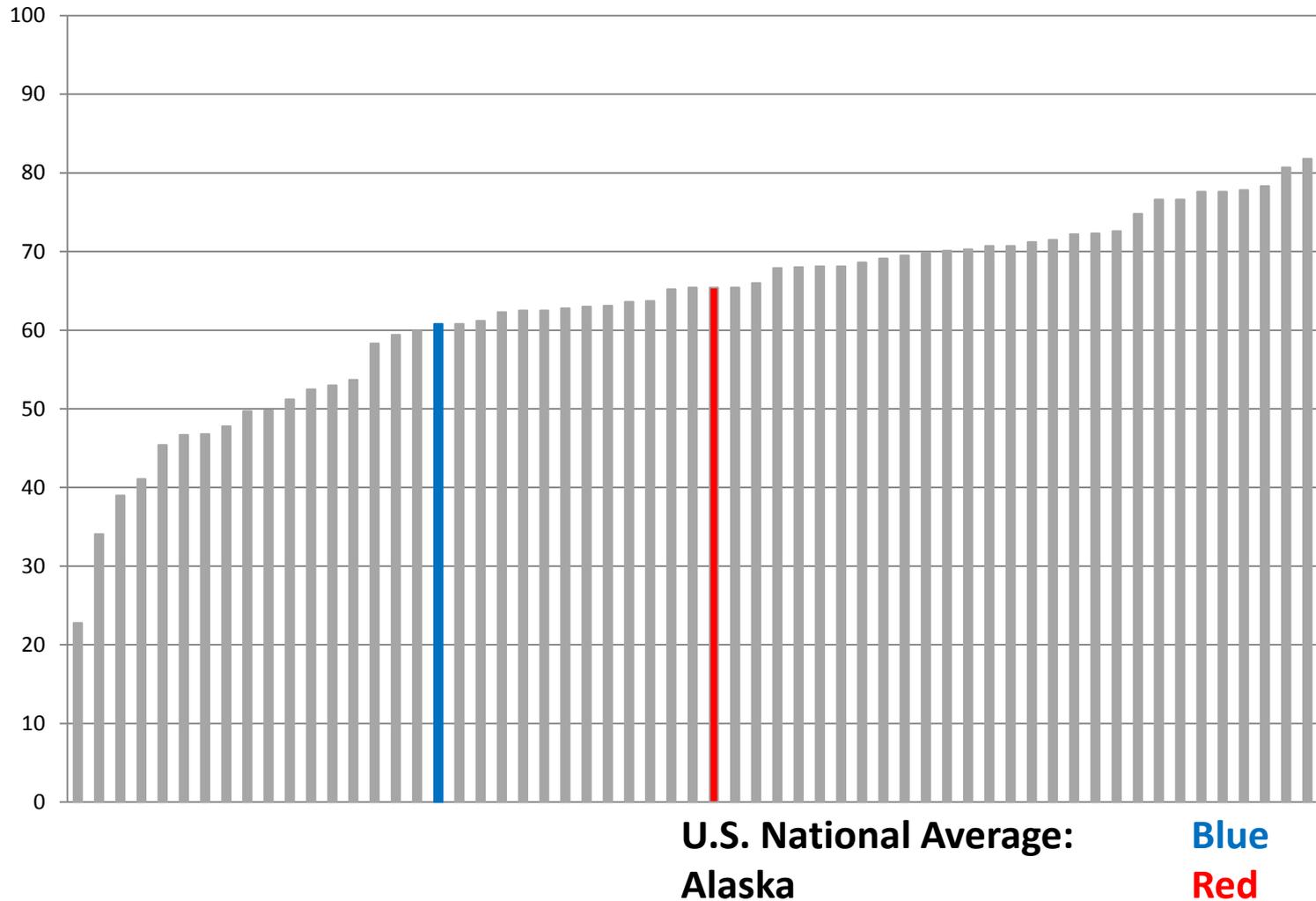
4+PCV Coverage Levels by State, 19-35 Months of Age; NIS 2009



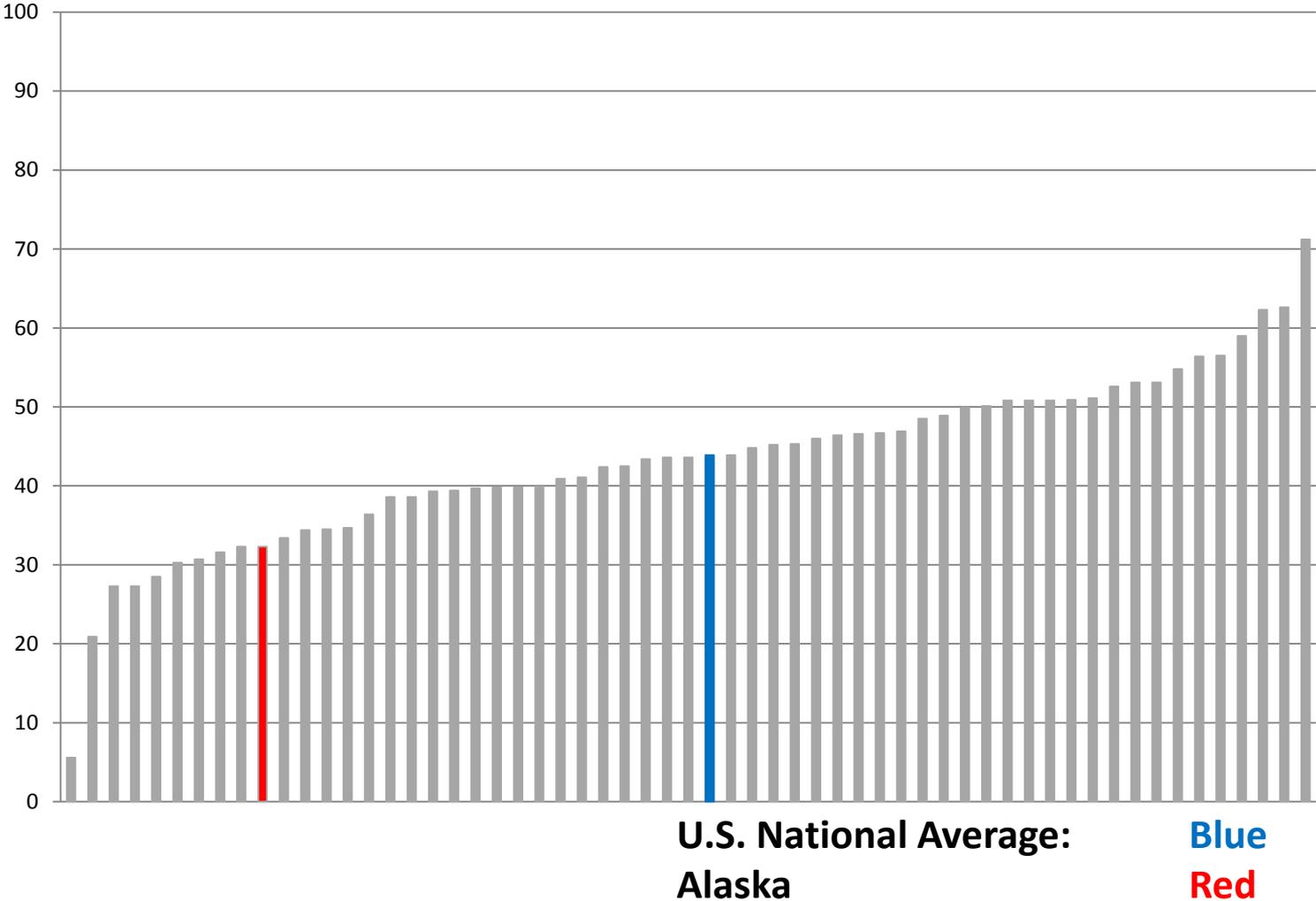
Hepatitis A Coverage Levels by State, 19-35 Months of Age; NIS 2009



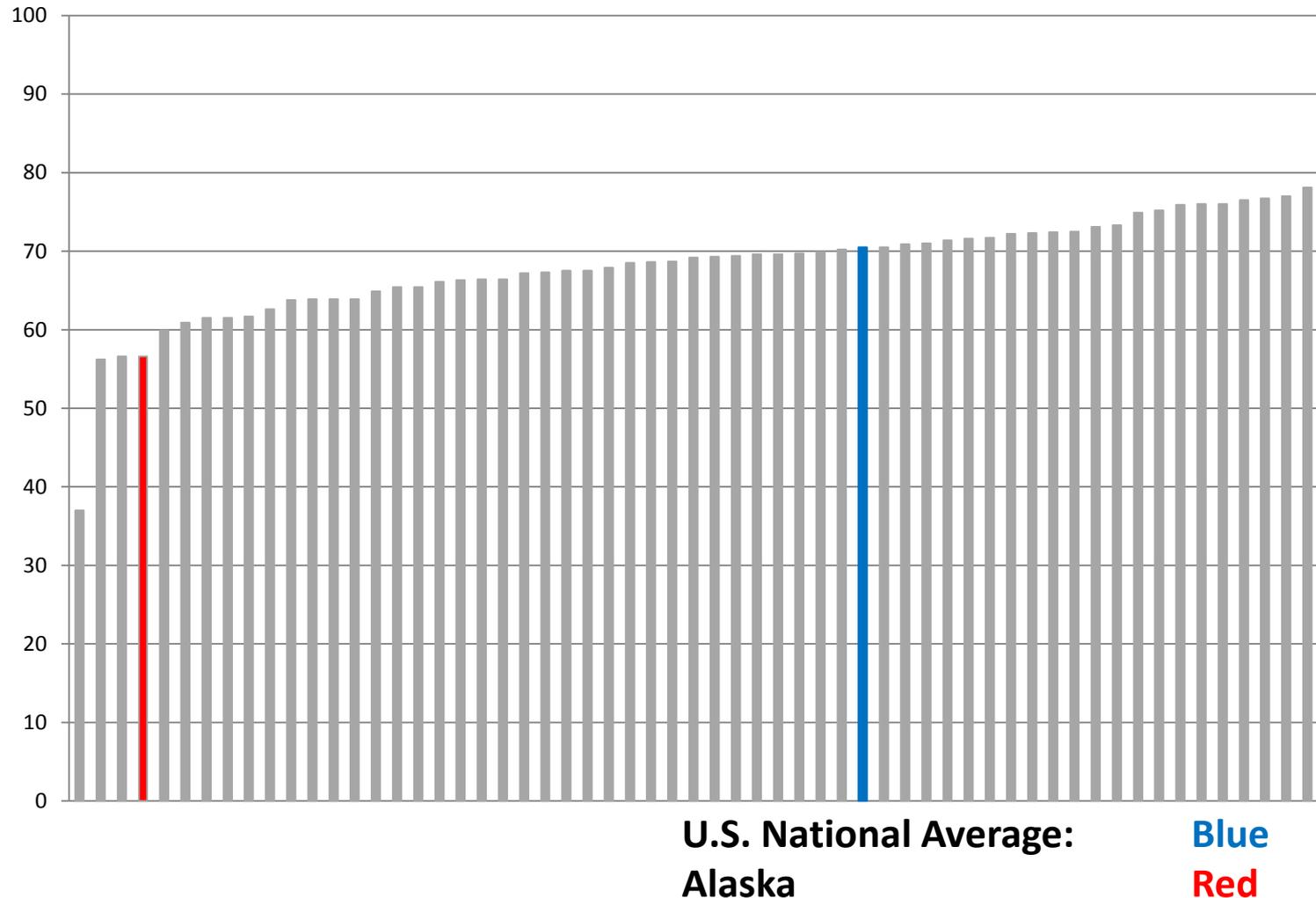
Hepatitis B Birth Dose Levels by State; NIS 2009



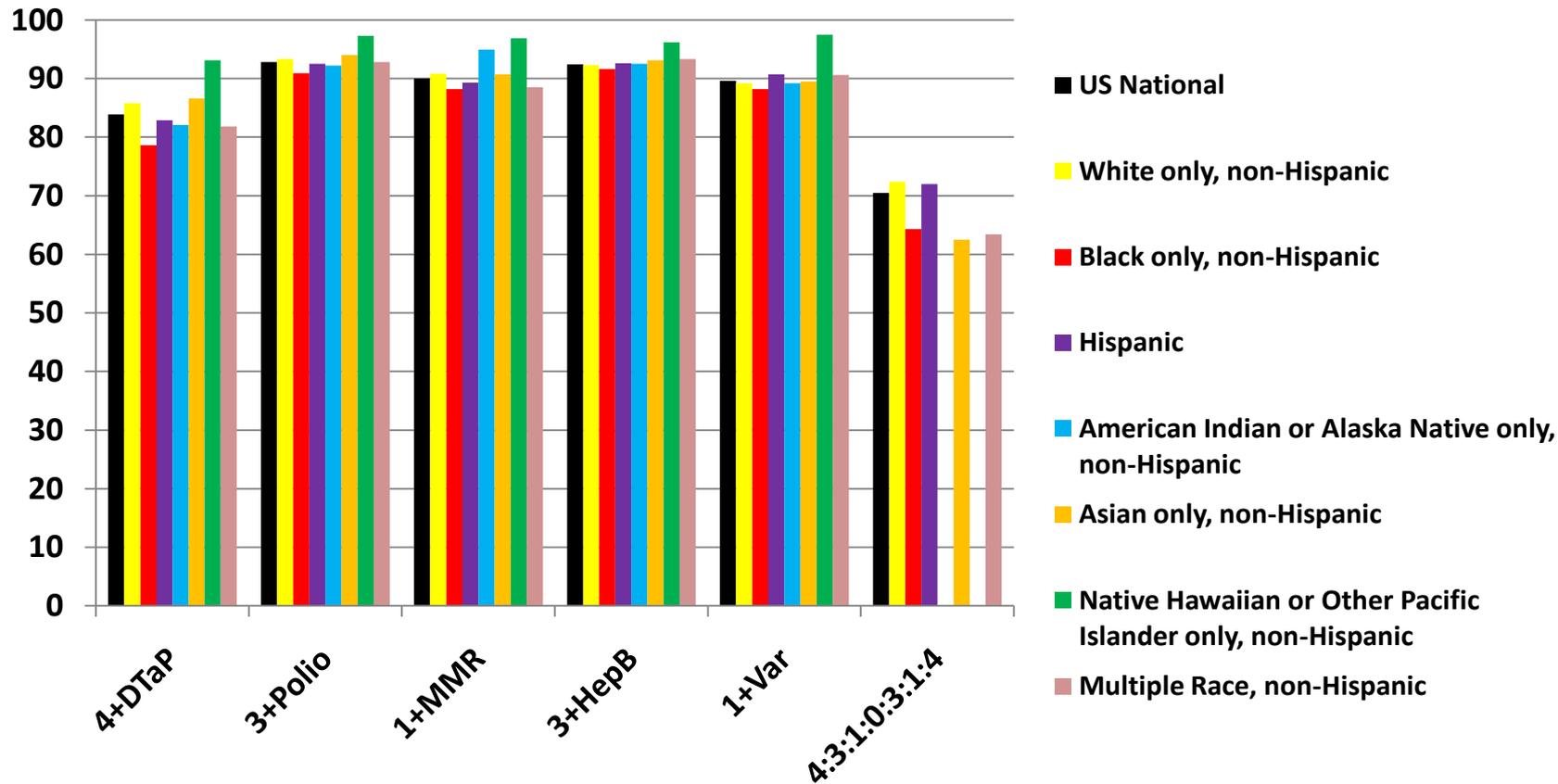
Rotavirus Coverage Levels by State, 19-35 Months of Age; NIS 2009



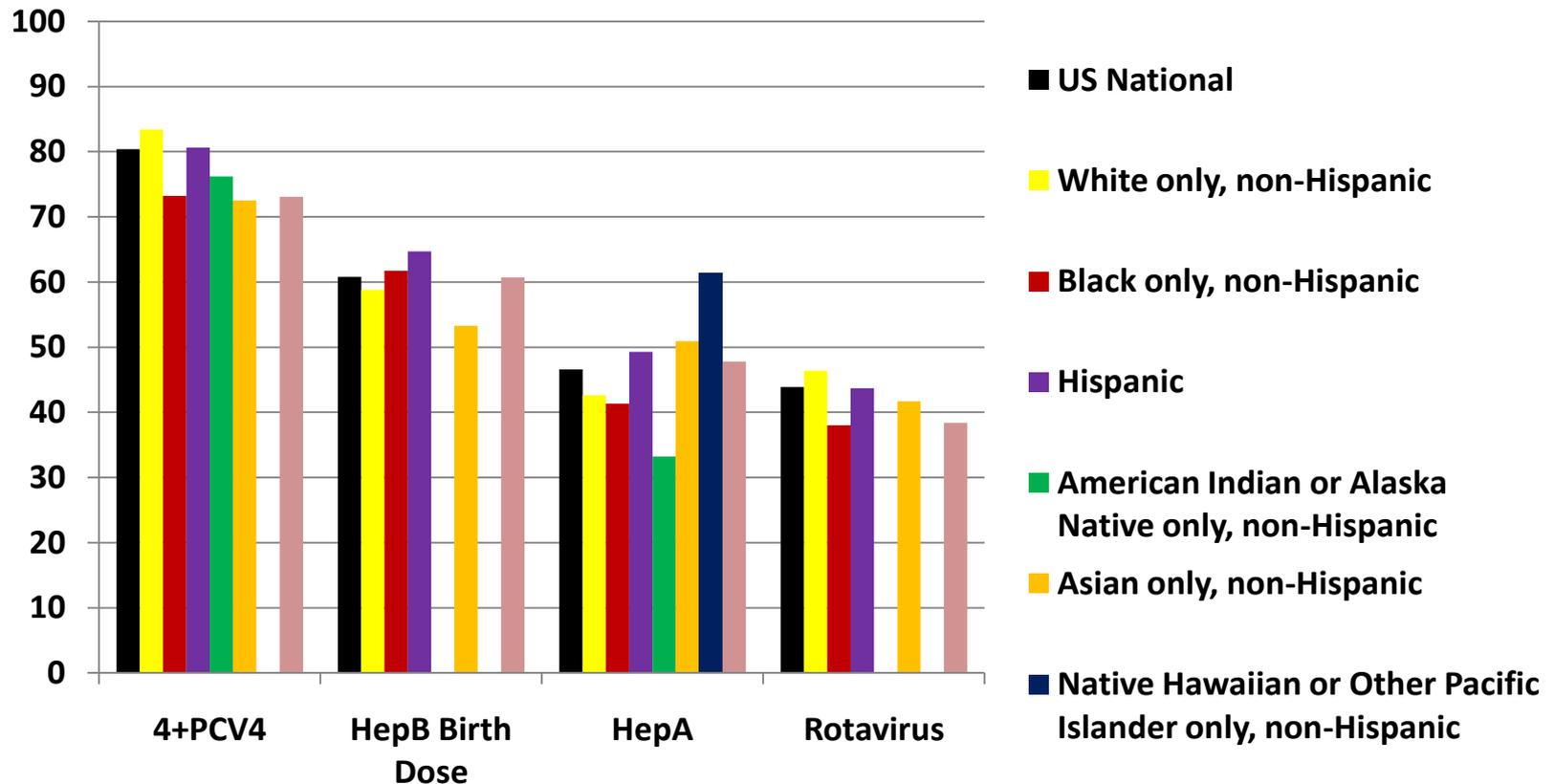
431x314 Coverage Levels by State, 19-35 Months of Age; NIS 2009



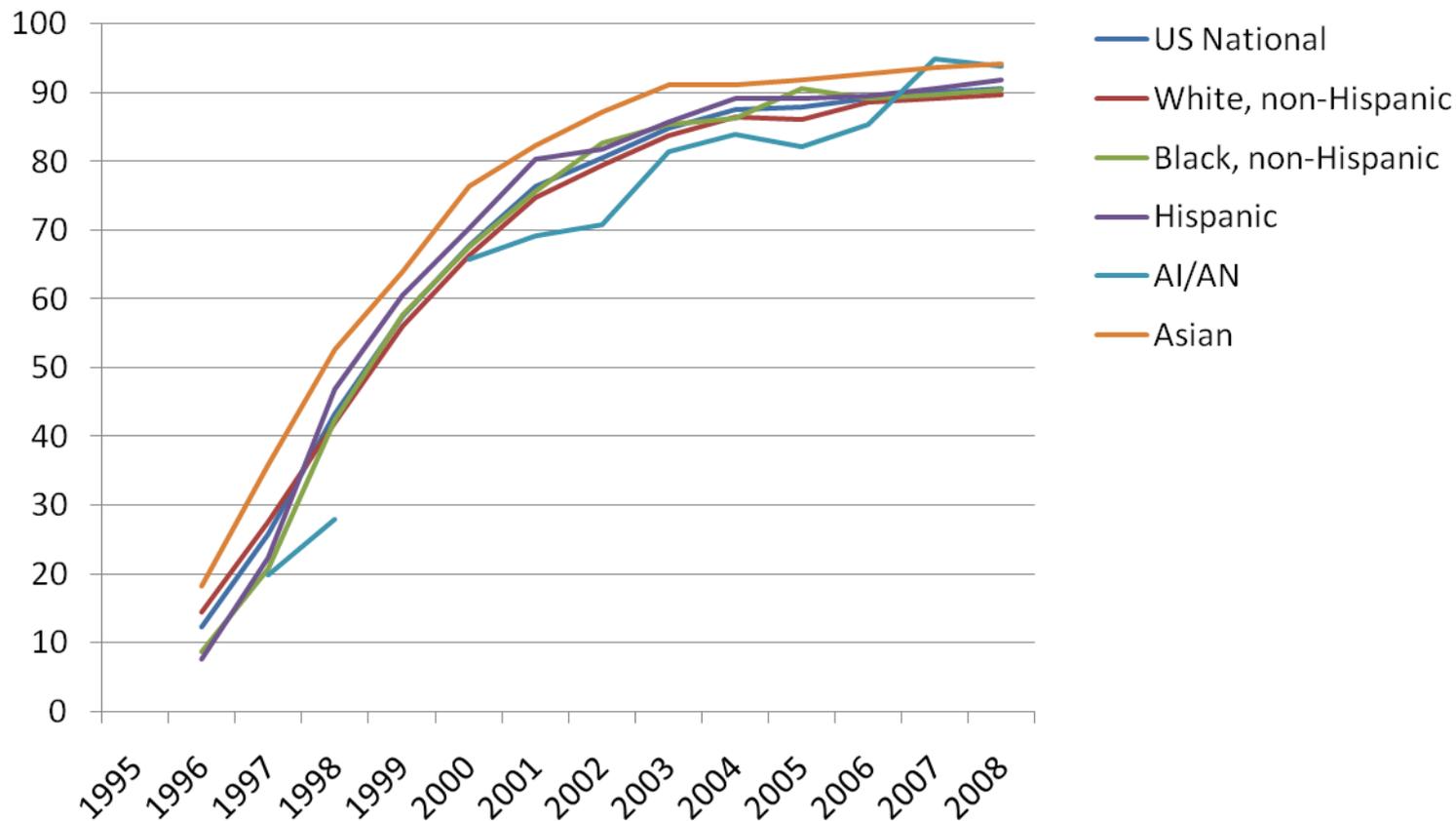
Vaccination Coverage Levels by Race and Ethnicity: NIS 2009



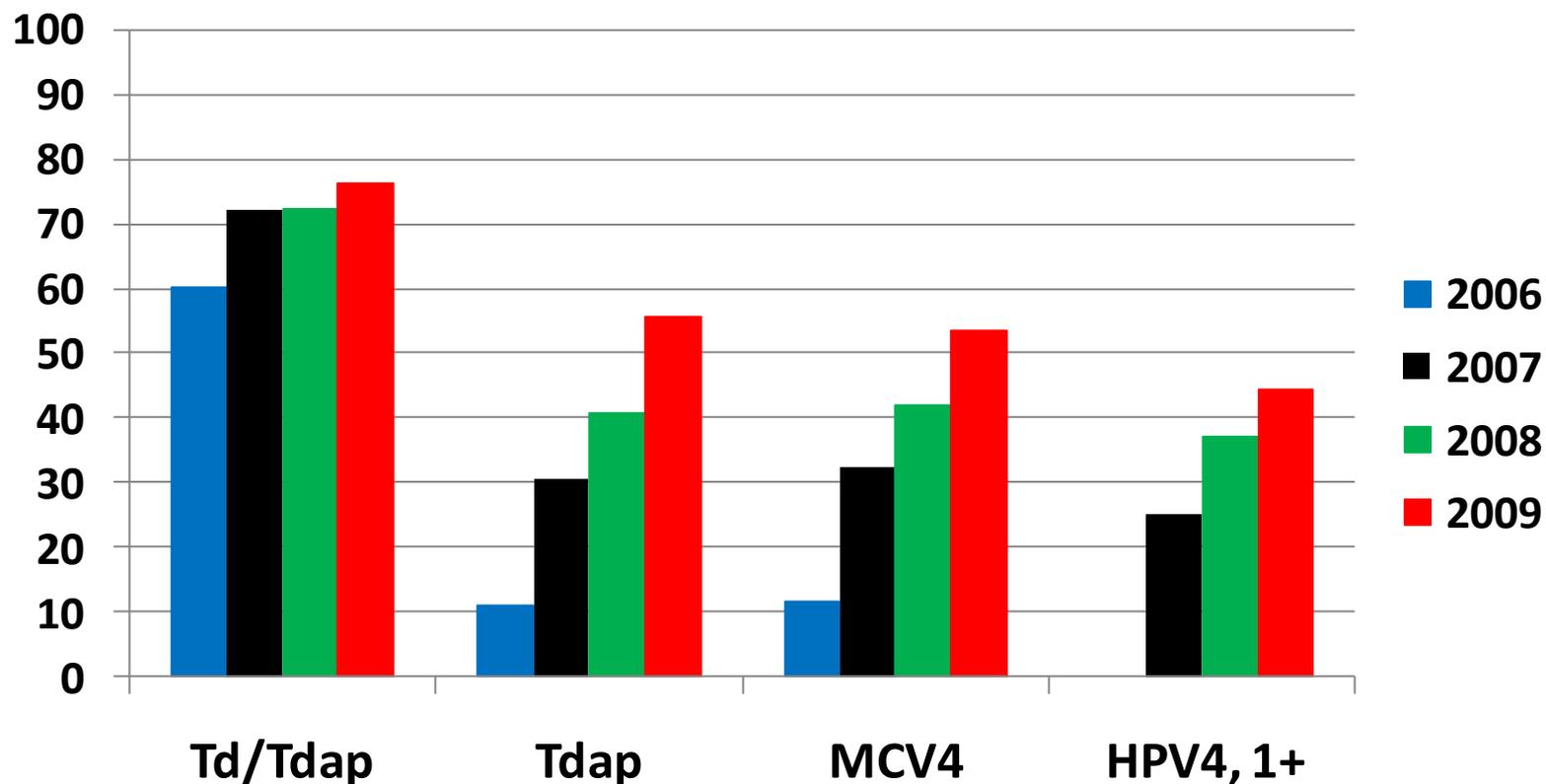
Vaccination Coverage Levels by Race and Ethnicity: NIS 2009



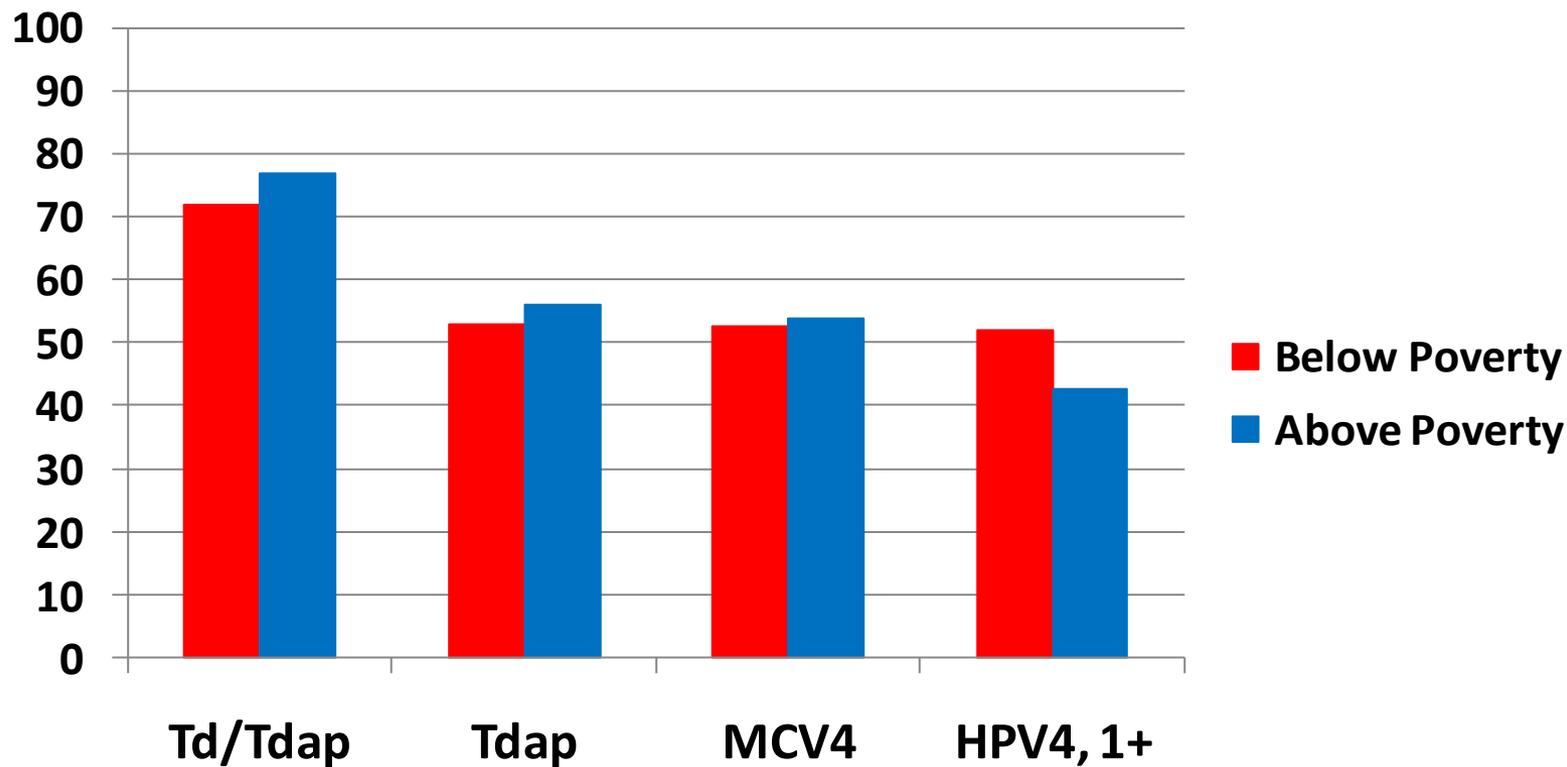
Varicella Vaccination Coverage Levels at 19-35 Months of Age by Race and Ethnicity, 1996 – 2008



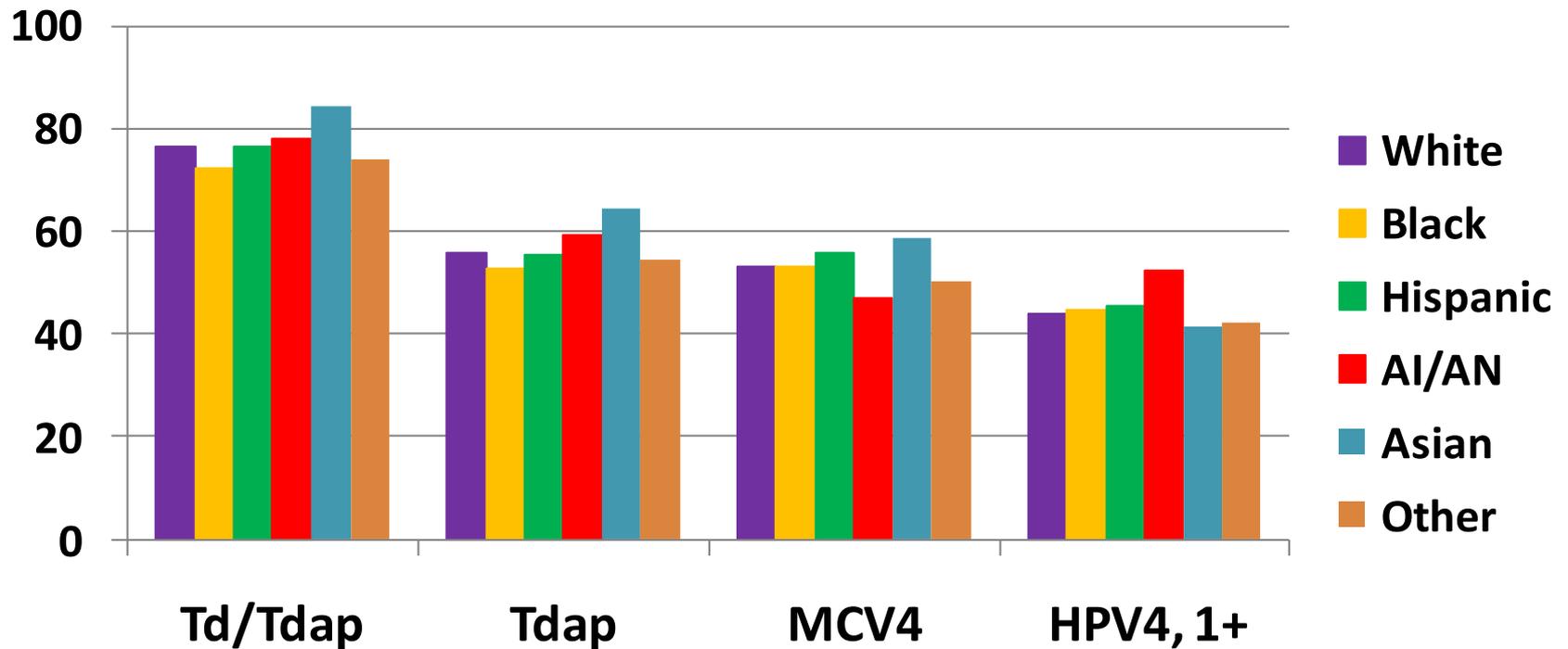
Adolescent Immunization, U.S., 2006 - 2009



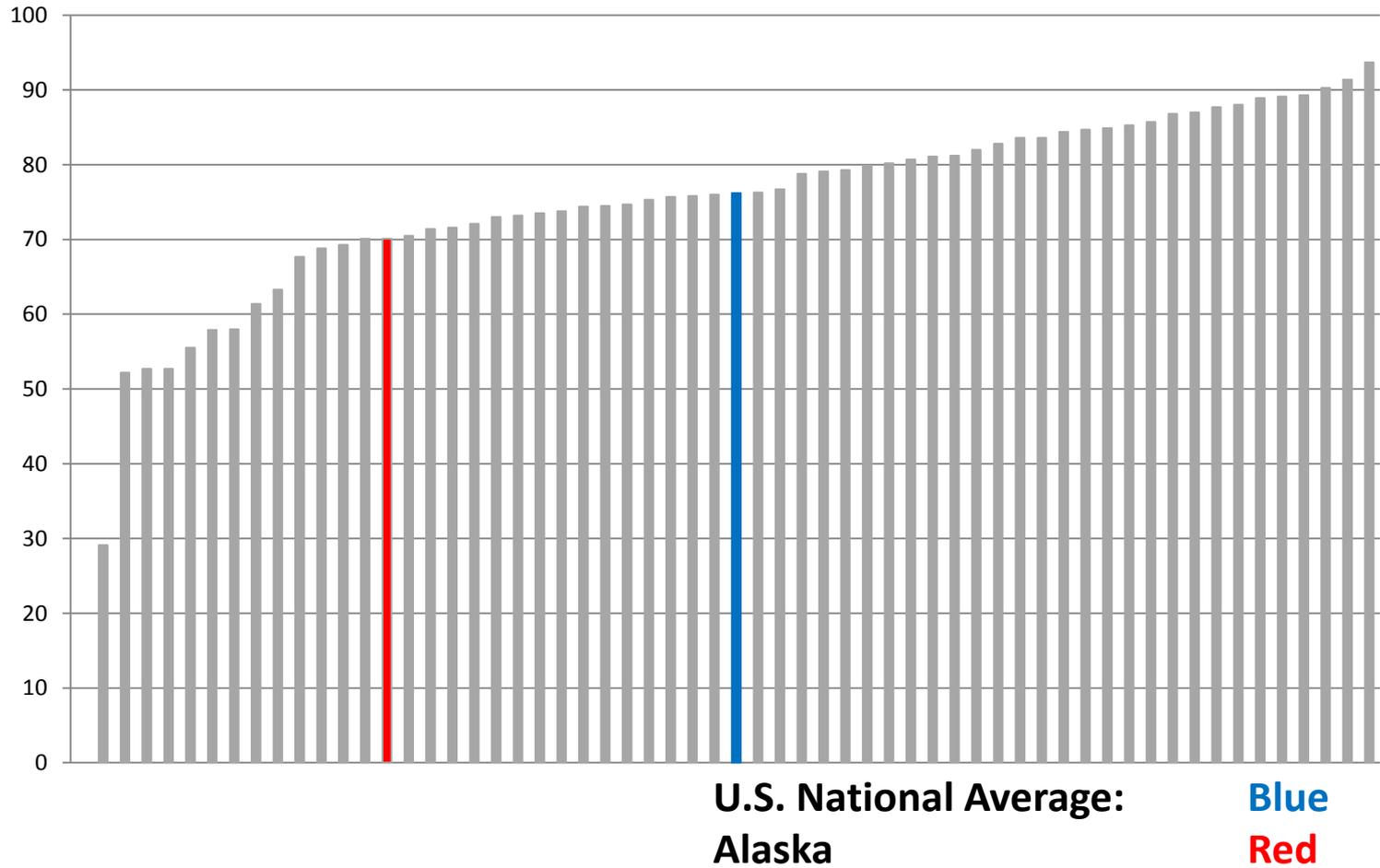
Adolescent Immunization by Poverty, U.S., 2009



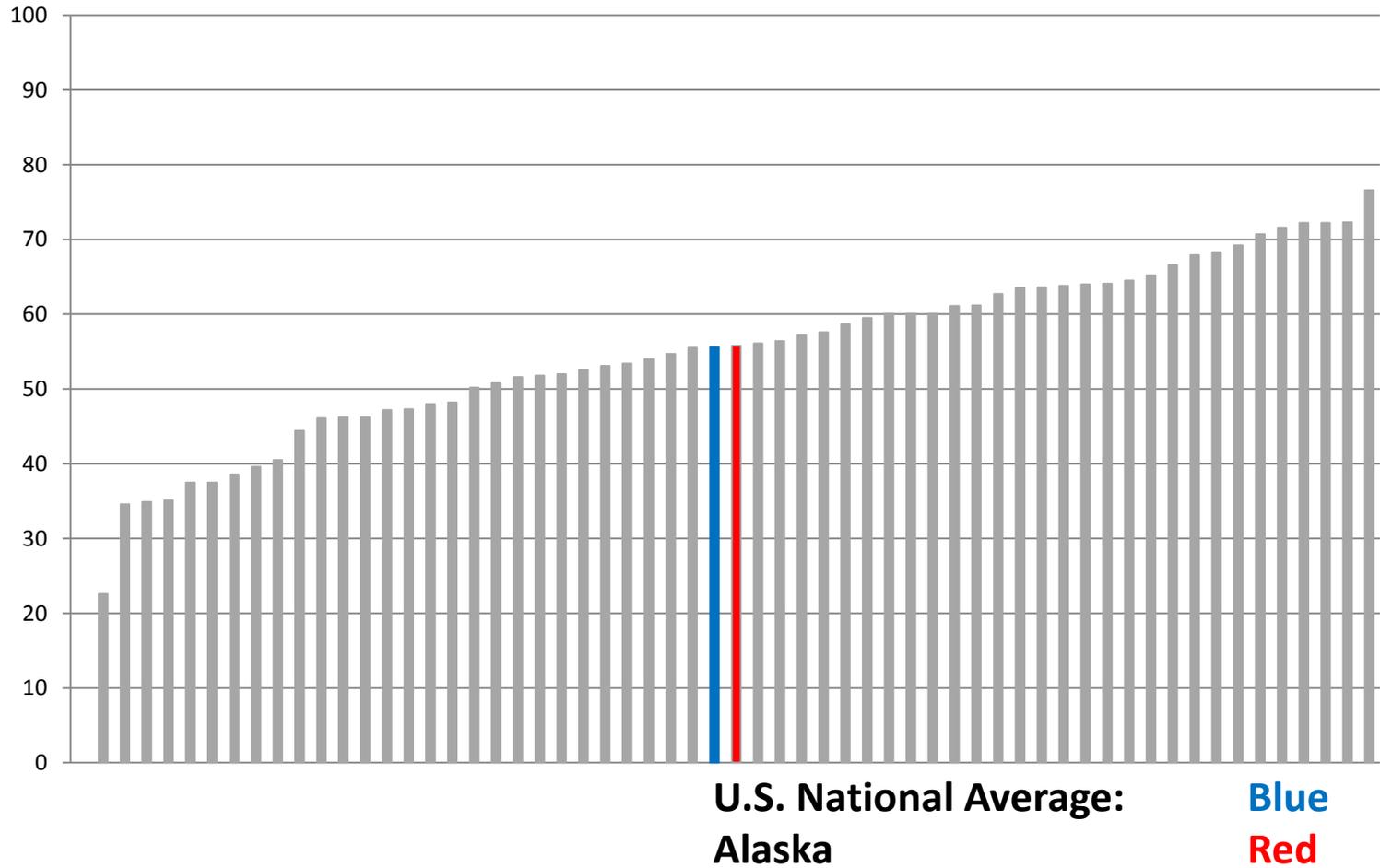
Adolescent Immunization by Race/Ethnicity, U.S., 2009



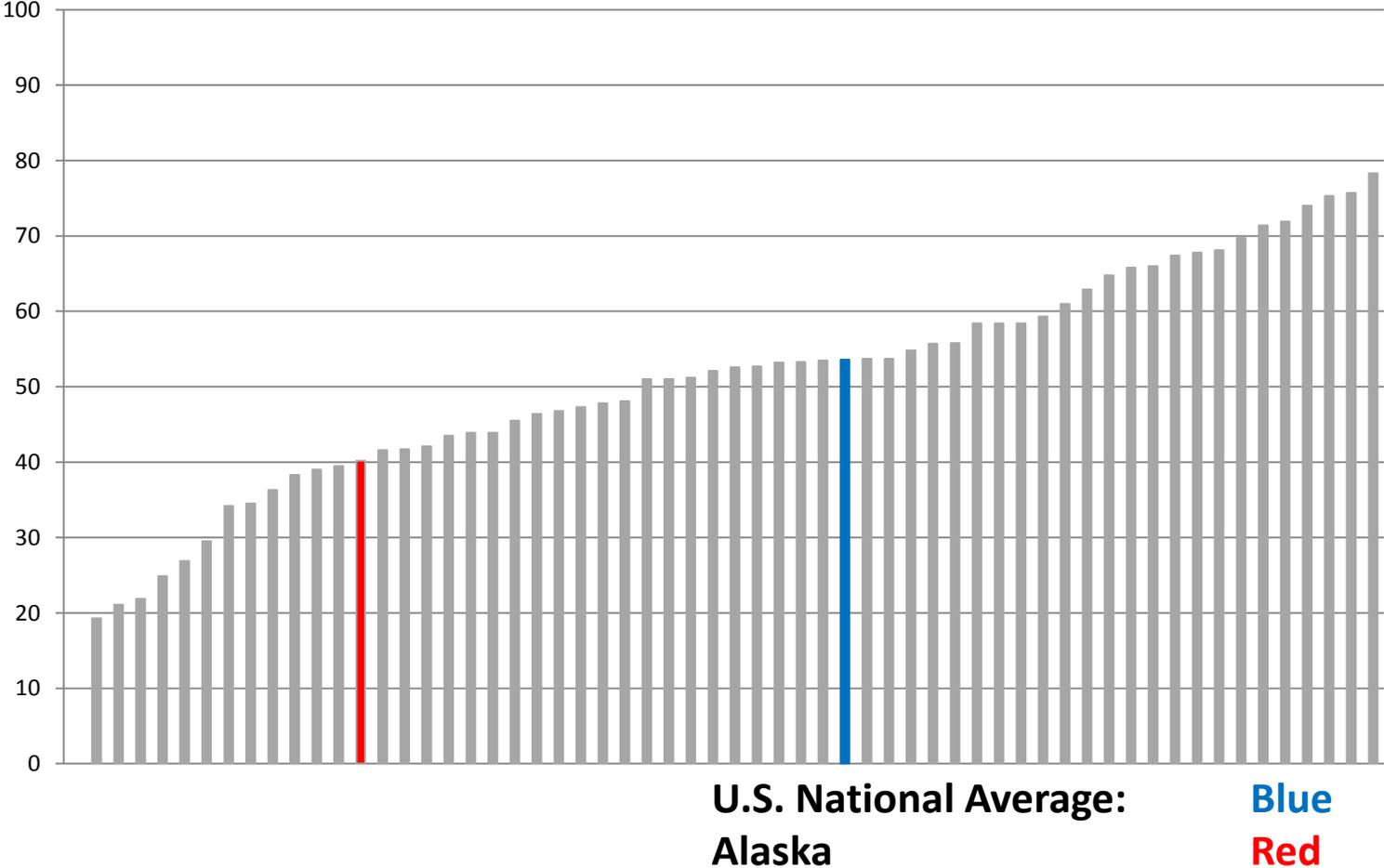
Td/Tdap Coverage, 13-17 Years Old; NIS-Teen 2009



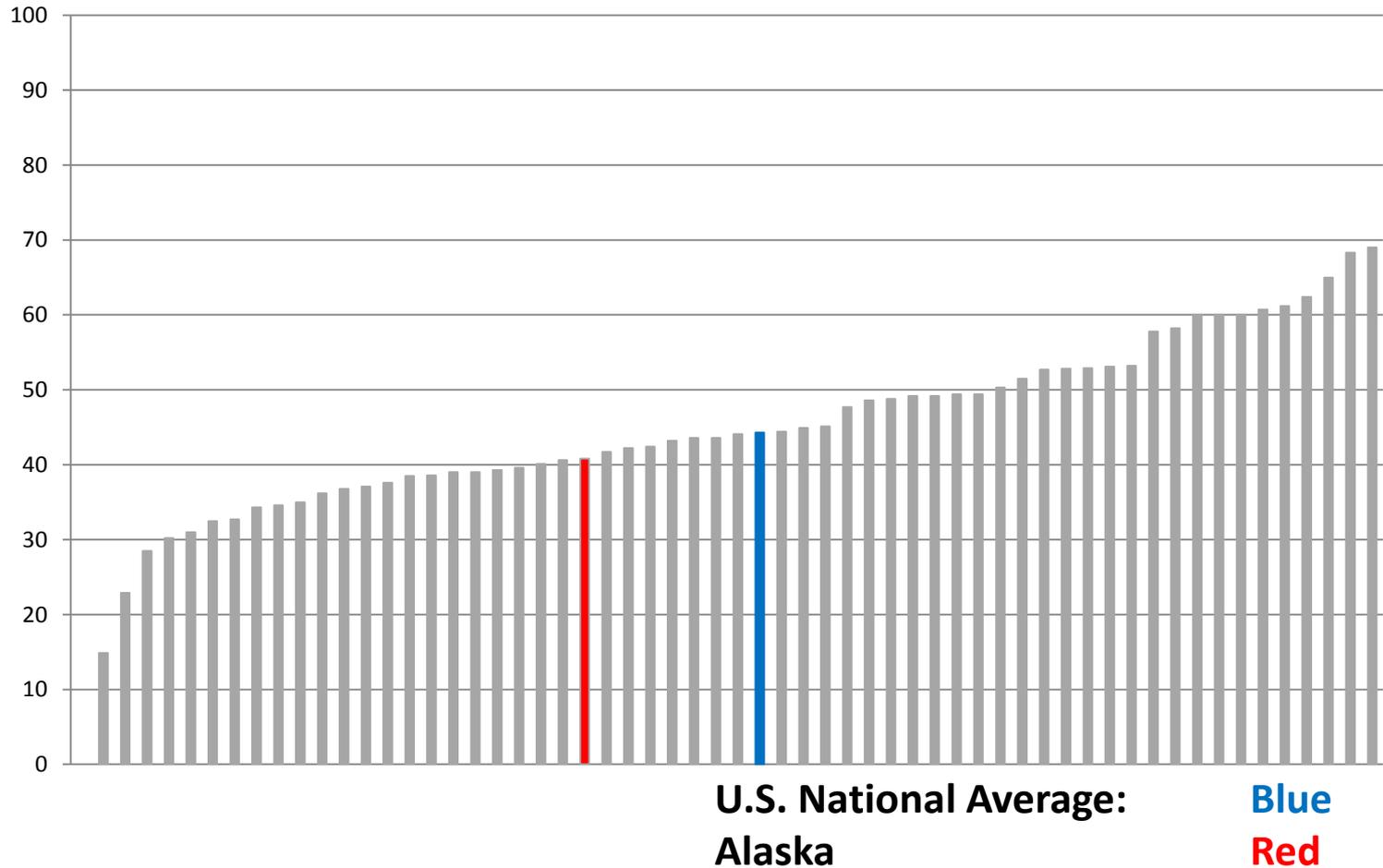
Tdap Coverage, 13-17 Years Old; NIS-Teen 2009



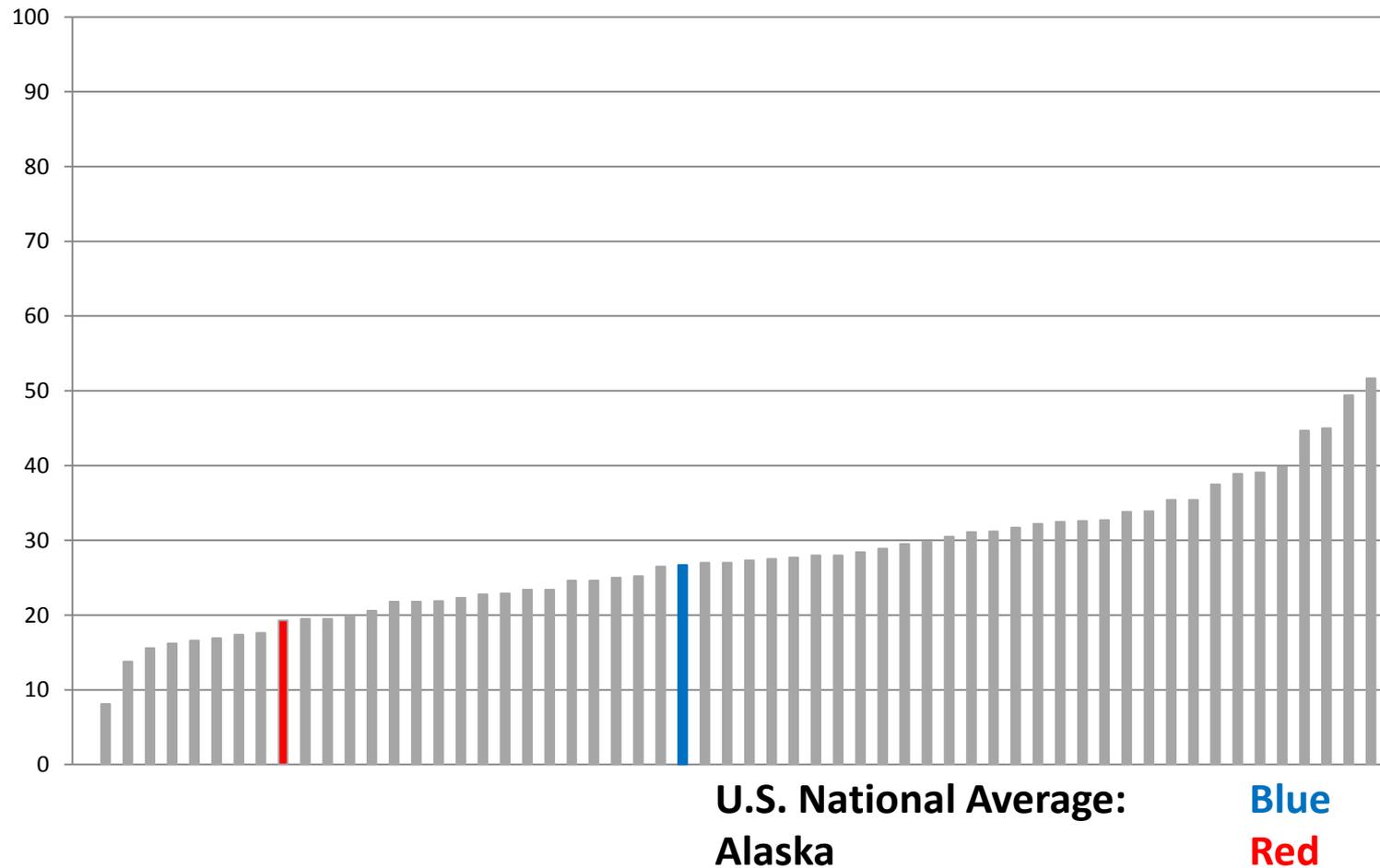
MCV4 Coverage, 13-17 Years Old; NIS-Teen 2009



1+HPV Coverage, 13-17 Years Old; NIS-Teen 2009

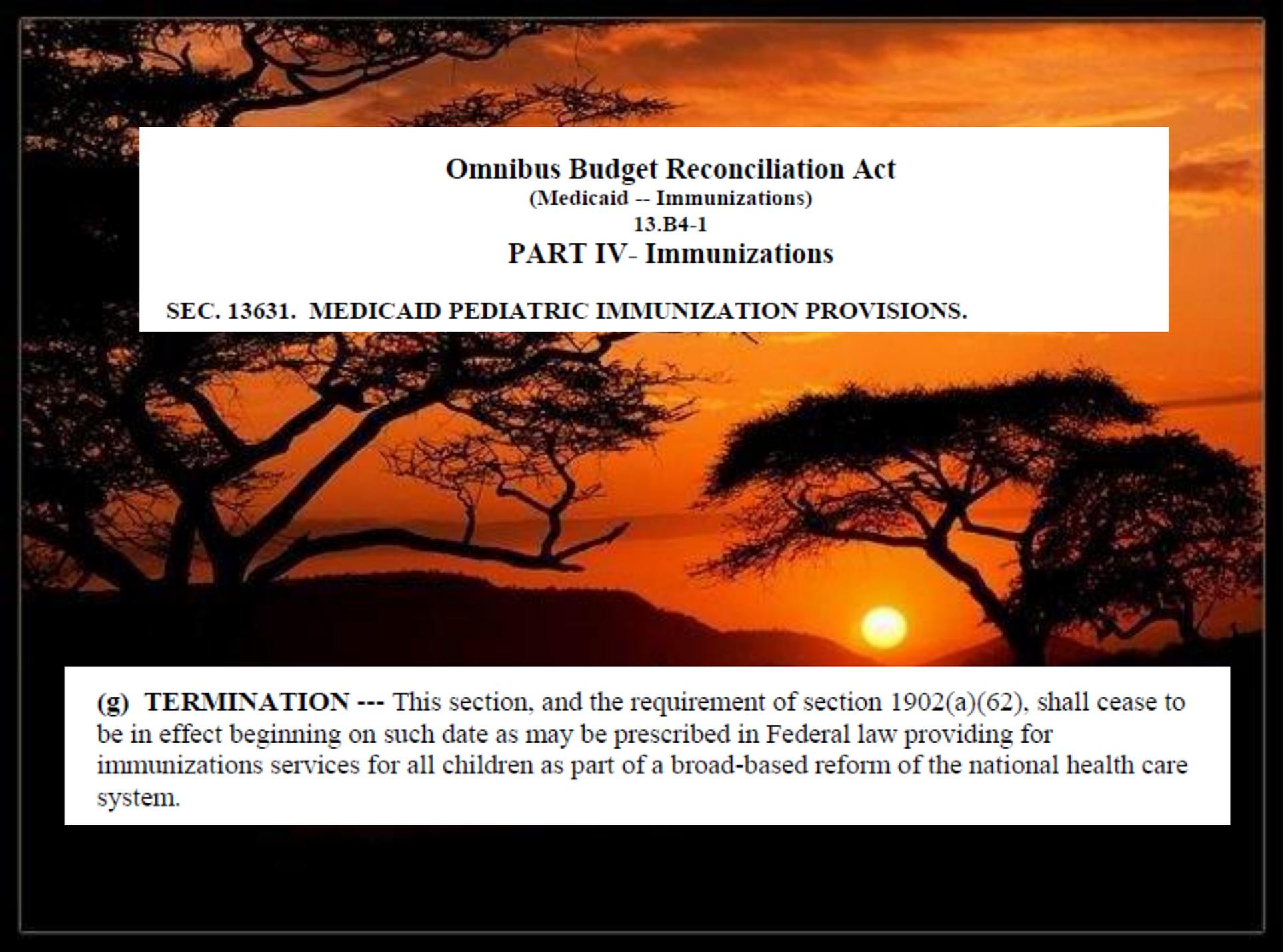


3+HPV Coverage, 13-17 Years Old; NIS-Teen 2009



Affordable Care Act Defines the Limits of Federal Support

LOOKING FORWARD



Omnibus Budget Reconciliation Act

(Medicaid -- Immunizations)

13.B4-1

PART IV- Immunizations

SEC. 13631. MEDICAID PEDIATRIC IMMUNIZATION PROVISIONS.

(g) TERMINATION --- This section, and the requirement of section 1902(a)(62), shall cease to be in effect beginning on such date as may be prescribed in Federal law providing for immunizations services for all children as part of a broad-based reform of the national health care system.

Future of VFC

- VFC not included in ACA
 - Authorities unchanged
- VFC impacted indirectly
 - Uninsured population to decrease
 - Underinsured population to decrease
 - Medicaid population to increase
 - Net estimated effect
 - Approximately 3% increase in VFC size
 - Higher proportion Medicaid

We must remind federal officials that administration fees within the Vaccines for Children Program (VFC) have not increased since 1993, such that pediatricians are losing money by participating in VFC. VFC administration fees should be consistent with the Medicare vaccine administration fee of approximately \$20 per vaccine. Many at-risk children have access to comprehensive health services in pediatricians' practices because of VFC.

We must advise federal officials that they cannot expect Medicaid, SCHIP and VFC to give all eligible children access to comprehensive health services when most states are treating pediatricians like second-rate doctors, paying them 70% of Medicare rates. The feds must enforce the Equal Access clause of the Medicaid statutes and insist that states pay pediatricians the Medicare rate when they provide medical homes for Medicaid/SCHIP/VFC-eligible children.

SEC. 1202. PAYMENTS TO PRIMARY CARE PHYSICIANS.

...
“(C) payment for primary care services (as defined in subsection (jj)) **furnished in 2013 and 2014 by a physician with a primary specialty designation of family medicine, general internal medicine, or pediatric medicine at a rate not less than 100 percent of the payment rate** that applies to such services and physician under part B of title XVIII (or, if greater, the payment rate that would be applicable under such part if the conversion factor under section 1848(d) for the year involved were the conversion factor under such section for 2009);” and

.....
“(2) **services related to immunization administration for vaccines and toxoids for which CPT codes 90465, 90466, 90467, 90468, 90471, 90472, 90473, or 90474 (as subsequently modified) apply under such System.**”.

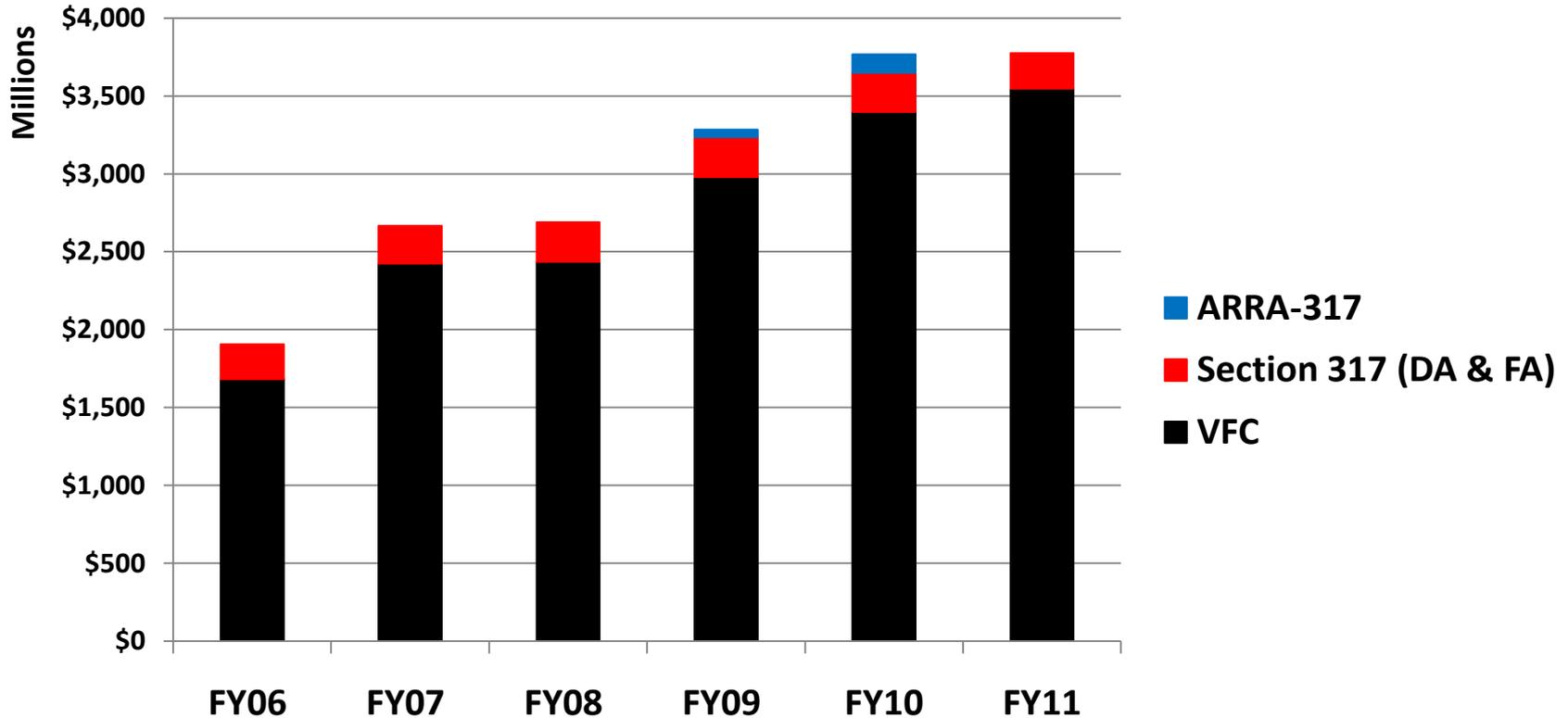
.....
“(dd) **INCREASED FMAP FOR ADDITIONAL EXPENDITURES FOR PRIMARY CARE SERVICES.**—...the Federal medical assistance percentage for a State that is one of the 50 States or the District of Columbia shall be equal to 100 percent. The preceding sentence does not prohibit the payment of Federal financial participation based on the Federal medical assistance percentage for amounts in excess of those specified in such sentence.”

Section 317 Immunization Program

Vaccine Funding

- Vaccine targets varied over years: polio, measles, rubella, back to measles ...
- Section 317 changed dramatically when VFC started in 1994 with the program emphasis squarely on children
- Primary use for Section 317 vaccine since 1994 has been to fill structural gap in VFC program: underinsured children outside of FQHC/RHCs

VFC and Section 317 Vaccine Funding, FY2006 – FY2011*



* Section 317 funding for FY2011 estimated due to Continuing Resolution

10-Year Vaccine Purchase Contrast: VFC and Section 317 Programs

Changes between 2001 and 2010	Section 317	VFC
Vaccine purchase budget	\$48 M	\$2,594 M
Percent increase in vaccine purchase budget	24%	423%
Average annual growth in vaccine purchase budget	\$5 M	\$288 M

% Change in cost to fully vaccinate a child from 0 through 19 years old during same time: 362%

Section 317 Cannot Fill the Underinsured Childhood Gap

- 10-year pace of need has been 10 times the growth of Section 317 vaccine funding
 - Size of underinsured population did not shrink in past 10 years
 - VFC-induced new vaccines have created ever widening need for discretionary funding
 - State/local vaccine funding has not increased with increased need, either
- Implications
 - Need to abandon thinking that discretionary funding will ever fill the VFC gap
 - More realistic strategy is needed – one that uses the Affordable Care Act's immunization requirements

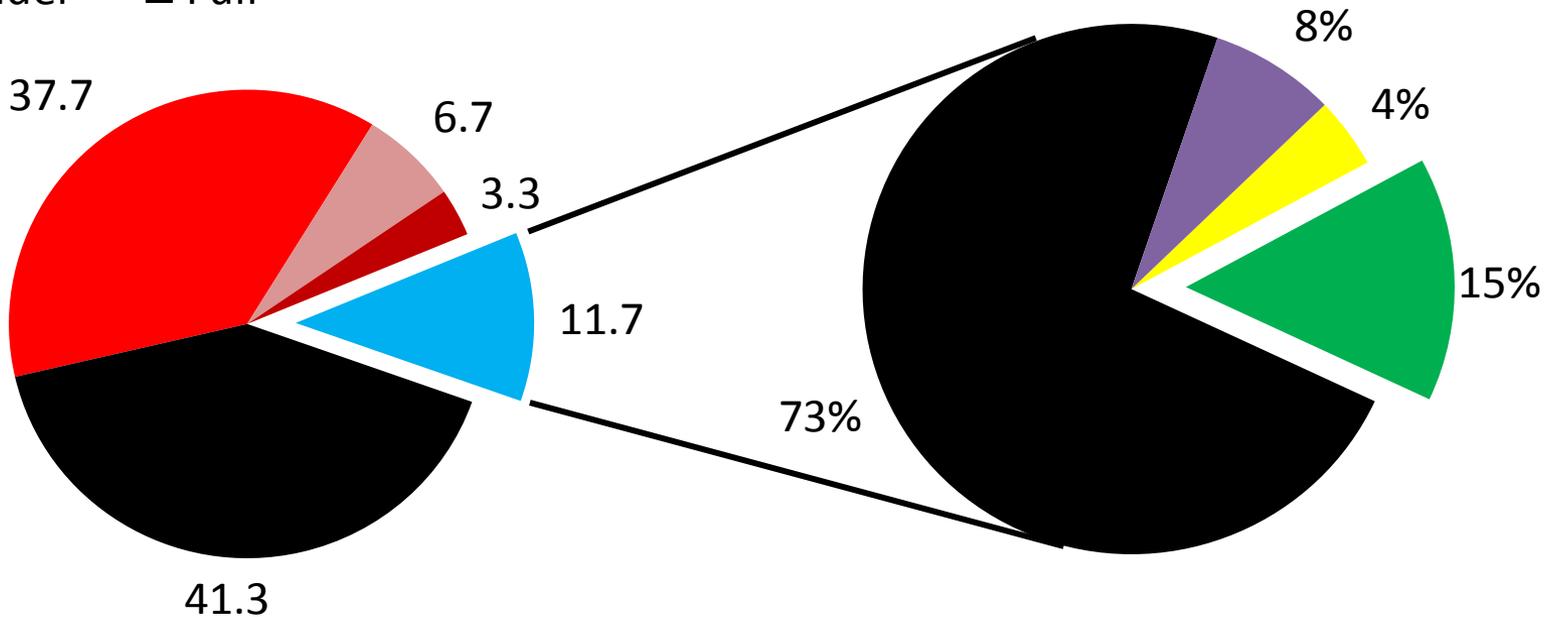
Affordable Care Act, Immunizations, and Health Insurance

- Key provisions: private insurance
 - Immunizations included in prevention benefit
 - ACIP sets standard requirements
 - Private insurance coverage of ACIP recommendations with no co-payment
 - ERISA plans included in requirement
- Potential challenges
 - Grandfathered plans
 - Medicaid for adults
 - Silent on immunization reimbursement levels
- Bottom line – Private sector pays for immunizations

Insurance / VFC Status and Vaccination Venue, 19-35 Months of Age: 2006 NIS

Insurance / VFC Category

Underinsured's Venues



Long-Term Sources of Pediatric Vaccines

- VFC and private insurance; nothing more is needed ultimately
- Fully insured children
 - Private providers
 - Health department clinics that bill insurance plan
 - FQHC/RHCs that bill insurance plan
- Medicaid, uninsured, AI/AN children
 - VFC vaccine
 - Any VFC provider
- Section 317 vaccine could be repurposed
 - Uninsured adults
 - Outbreak control
 - Other priorities

How to Get From Here to There: Transition Principles

- Provide programmatically accountable basis for all federal purchase vaccine
- Provide disincentive to grandfathered plans to continue unchanged
- Provide accountable vaccine for underinsured children in public sector settings while grandfathered plans exist (deputization as a bridge)
- Facilitate dose-level accountability
- Strengthen health department clinics – important for preparedness
- Evaluate progress to improve transition

Programs During Transition: Two Important Changes

- Underinsured
 - Declining population
 - VFC vaccine at FQHC/RHCs and, possibly, deputized providers as temporary bridge (if allowed)
- Fully insured children
 - Private insurance pays, regardless of venue
 - No Section 317 vaccine except special situations, e.g., mass clinics for outbreak control

Critically Important Question

- Can your vaccine financing policy be completely supported by your access to discretionary vaccine funding (Section 317 and state/local)?
- Question is most germane to any grantee with greater than a VFC-only vaccine financing policy
- Answering this question will be a shared responsibility between CDC and the grantee

Source: 2009 VFC Management Survey

Childhood Vaccine Supply Policy 2009

(1) VFC Only	(2) VFC & Underinsured	(3) VFC & Underinsured Select	(4) Universal	(5) Universal Select	(6) Other
Alabama California Colorado Delaware Florida Iowa Louisiana Mississippi Missouri Nebraska Nevada Ohio Pennsylvania Philadelphia Tennessee Virgin Islands Virginia West Virginia	District of Columbia Georgia Houston Indiana Kentucky Maryland Michigan Minnesota New Jersey New York City New York State Oklahoma Puerto Rico San Antonio South Carolina Utah	Chicago Connecticut Guam Illinois	American Samoa N. Marianas Islands New Hampshire New Mexico Rhode Island Vermont Wisconsin Wyoming	Alaska Hawaii Maine Massachusetts North Carolina South Dakota Washington	Arizona Arkansas Idaho Kansas Montana North Dakota Oregon Texas
18	16	4	8	7	8

Transition Funding Opportunity Announcement

- One-time funding to help transition into future immunization environment
 - IT solutions for accountability
 - Revenue stream for local health departments
 - Strategic use of Section 317 vaccine when no longer needed for underinsured children
- CDC has not yet received funding for the FOA

Conclusions

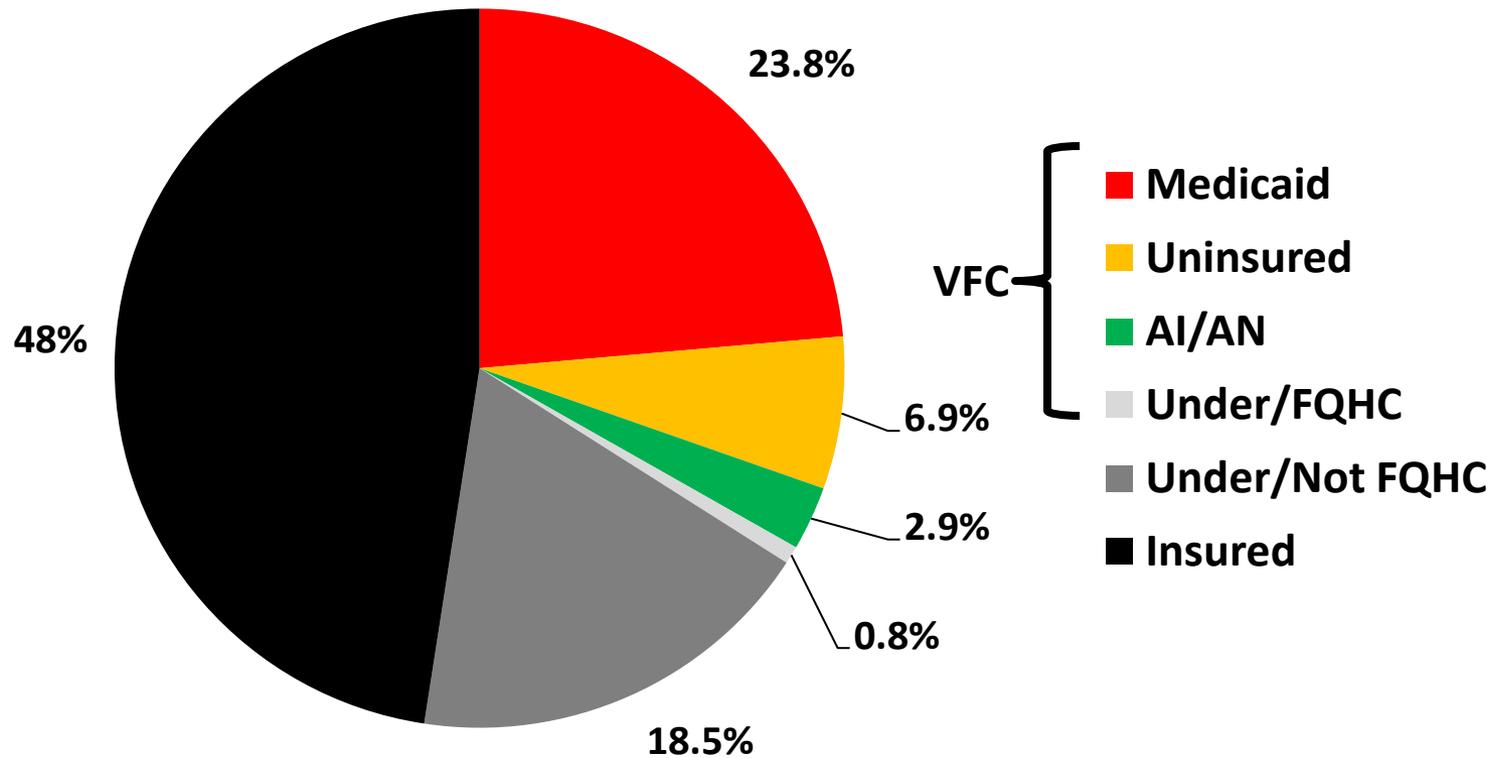
- Childhood immunization continues to be a great investment by society in the health of children
- Vaccine financing challenges are huge and will require substantial program change
- Childhood vaccination coverage levels are holding steady, but challenge is with new vaccines, especially adolescent vaccines
- Future childhood program is streamlined, but getting there will require action

Have a great conference.

THANK YOU!

EXTRA SLIDES

Insurance/VFC Status 13-17 Year Olds; 2008 NIS-Teen Insurance Module



Totals add to > 100% because some AI/AN children are enrolled in Medicaid