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National Immunization Update

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Centers for Disease Control and Prevention**



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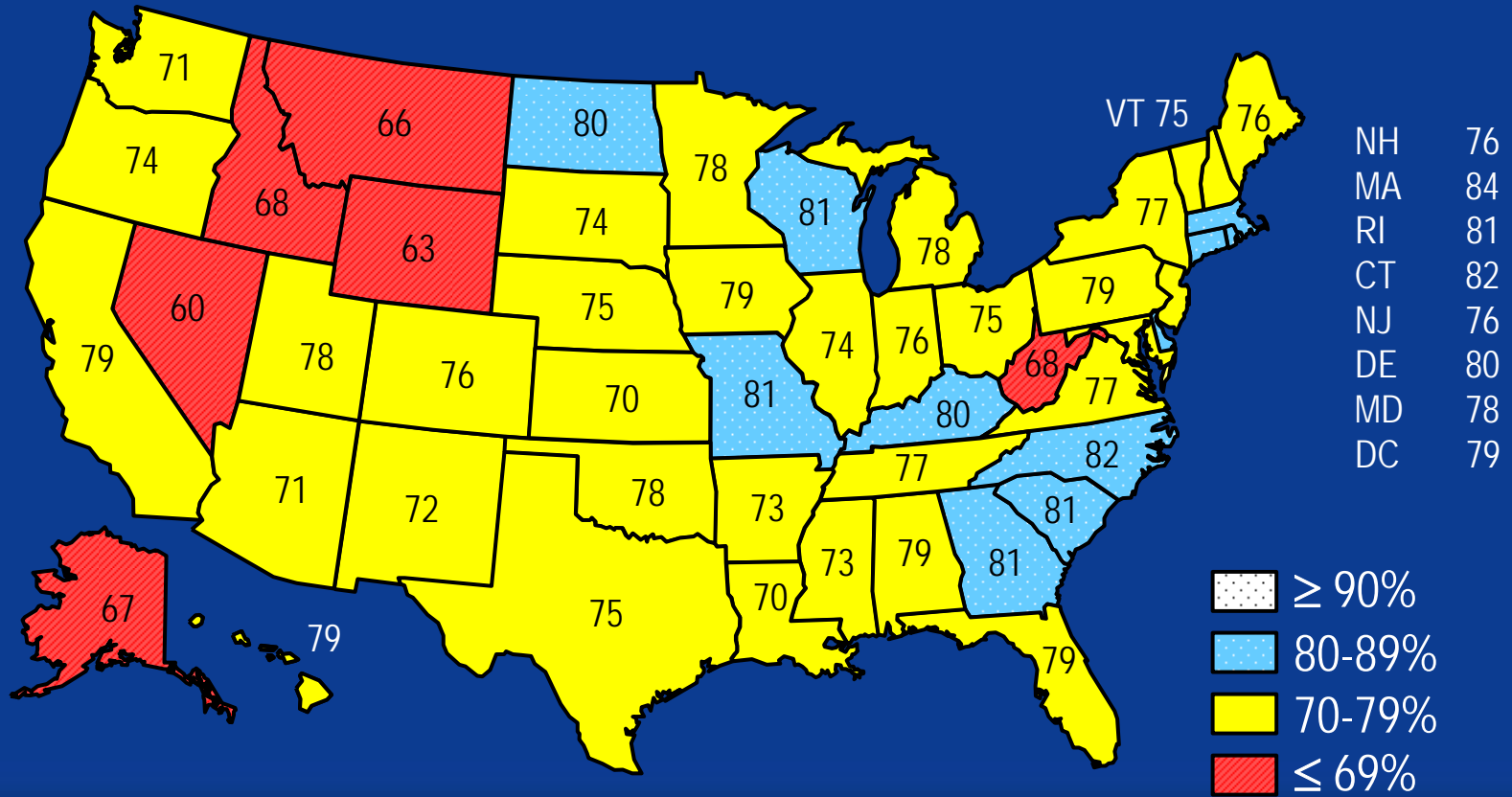
Comparison of 20th Century Annual Morbidity and Current Morbidity: Vaccine-Preventable Diseases

Disease	20th Century Annual Morbidity†	2006 Reported Cases †	Percent Decrease
Smallpox	29,005	0	100%
Diphtheria	21,053	0	100%
Measles	530,217	55	> 99%
Mumps	162,344	6,584	96%
Pertussis	200,752	15,632	92%
Polio (paralytic)	16,316	0	100%
Rubella	47,745	11	> 99%
Congenital Rubella Syndrome	152	1	> 99%
Tetanus	580	41	93%
Haemophilus influenzae	20,000	208*	99%

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

* 29 type b and 179 unknown (< 5 years of age)

Estimated Vaccination Coverage with the 4:3:1:3:3:1 * Series, by Coverage Level and State 2006 National Coverage = 77%



*4+DTaP, 3+Polio, 1+MMR, 3+Hib, 3+HepB, 1+Varicella

Source: CDC. National, state, and local area vaccination coverage among children aged 19-35 months---United States, 2006. MMWR 2007;56:880-885.

Immunization Coverage of Children 19-35 Months of Age, Connecticut and U.S. 2006, National Immunization Survey

	Connecticut	U.S.
4:3:1:3:3:1	81.8 \pm 5.2	76.9 \pm 1.0
DTaP \geq 4 doses	91.4 \pm 4.1	85.2 \pm 0.9
Polio \geq 3 doses	96.9 \pm 2.3	92.8 \pm 0.6
Hib \geq 3 doses	96.6 \pm 2.7	93.4 \pm 0.6
MMR \geq 1 dose	96.5 \pm 2.0	92.3 \pm 0.6
Hep B \geq 3 doses	97.7 \pm 2.2	93.3 \pm 0.6
Varicella >1 dose	92.5 \pm 3.2	89.2 \pm 0.7
PCV \geq 3 doses	93.6 \pm 3.4	86.9 \pm 0.8

Number of Vaccines in the Routine Childhood and Adolescent Immunization Schedule

1985

Measles
Rubella
Mumps
Diphtheria
Tetanus
Pertussis
Polio

7

1995

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

10

2008

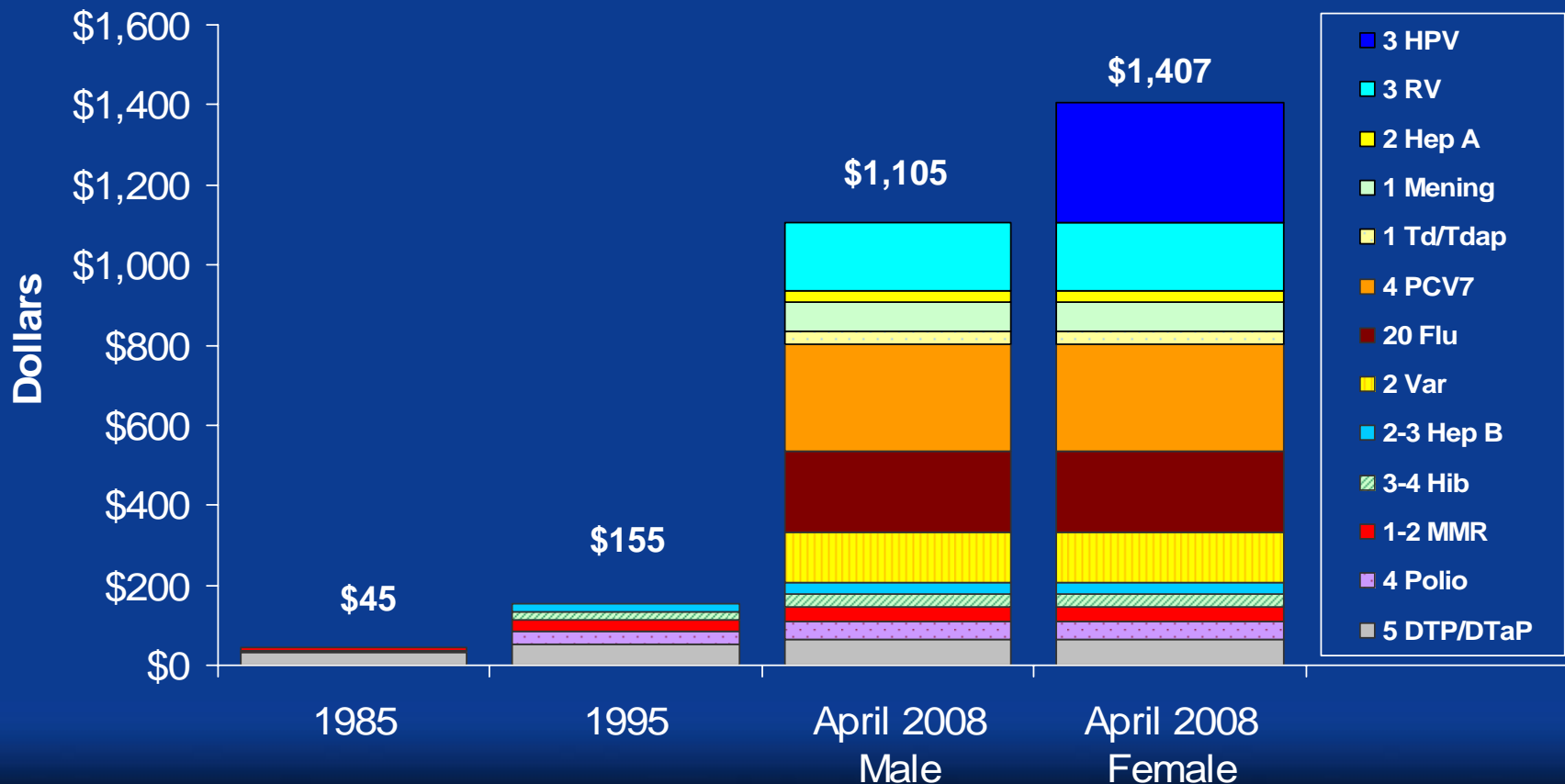
Measles
Rubella
Mumps
Diphtheria
Tetanus
Pertussis
Polio
Hib (infant)
HepB
Varicella
Pneumococcal disease
Influenza
Meningococcal disease
HepA
Rotavirus
HPV

16

Vaccines on the Horizon

Vaccine	Status
Rotavirus (ROTARIX®)	Licensed April 2008
HPV (Cervarix™)	Pending FDA Review
Hib/DTaP/IPV (PENTACEL™)	Pending FDA Review
DTaP/IPV (KINRIX)	Pending FDA Review

U.S. Federal Contract Prices for Vaccines Recommended Universally for Children and Adolescents: 1985, 1995, April 2008



1985 and 1995 represent the average federal contract price to account for price changes within the respective year.

April 2008 represents the minimum cost to vaccinate children and adolescents and is based on the federal contract price as of April 2, 2008. The 2008 cost to vaccinate includes the new ACIP expanded recommendation for influenza vaccine for all children 0-18 year of age.

Last updated April 8, 2008.

Return on Investment of Childhood Immunization Program

- For each birth cohort vaccinated with 7 vaccines (DTaP, Td, Hib, Polio, MMR, Hep B, Varicella) routinely included in the schedule:
 - Society saves \$33.4B in indirect costs
 - Direct health care costs are reduced by \$9.9B
 - 33,000 lives are saved
 - 14M cases of disease are prevented

* **Source:** Zhou et al – Archives of Pediatric and Adolescent Medicine 2005

When We Invest, Then We Make a Difference

- 0** Birth defects associated with US-acquired congenital rubella syndrome following elimination of rubella in the US in 2004
- 12,000** Babies born daily who will need as many as 28 vaccinations before they are 2 years of age to be protected against 14 vaccine preventable diseases
- 170,000** Invasive pneumococcal cases prevented during 2001 through 2006
- 2,500,000** Measles deaths averted world-wide from global vaccination campaigns and improvements in routine immunization

Challenges

- **Implementing new vaccines and recommendations**
- **Reaching adolescents and adults**
- **Vaccine financing, supply, distribution**
- **Reducing remaining racial /ethnic disparities**
- **Vaccine acceptance**
- **Pandemic preparedness / seasonal influenza**
- **Accelerating global immunization and prevention progress**
- **Complacency**

Love them. Protect them.



Immunize them.

National Infant Immunization Week

April 19-26, 2008
