

Enhancing HPV Immunization in Adolescents

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Objectives

- To discuss barriers that teens may experience in acquiring HPV vaccine
- To describe strategies to enhance immunization rates
- To review status of mandates for HPV vaccine

Recommended Childhood and Adolescent Immunization Schedule UNITED STATES • 2006

Vaccine ▼	Age ►	Birth	1 month	2 months	4 months	6 months	12 months	15 months	18 months	24 months	4-6 years	11-12 years	13-14 years	15 years	16-18 years	
Hepatitis B ¹	HepB		HepB	HepB ¹	HepB			HepB			HepB Series					
Diphtheria, Tetanus, Pertussis ²				DTaP	DTaP	DTaP		DTaP			DTaP	Tdap		Tdap		
<i>Haemophilus influenzae</i> type b ³				Hib	Hib	Hib ³	Hib						Quadrivalent HPV vaccine			
Inactivated Poliovirus				IPV	IPV	IPV					IPV					
Measles, Mumps, Rubella ⁴							MMR				MMR		MMR			
Varicella ⁵							Varicella					Varicella				
Meningococcal ⁶												MCV4		MCV4		
Pneumococcal ⁷				PCV	PCV	PCV	PCV				PCV		PPV			
Influenza ⁸						Influenza (Yearly)					Influenza (Yearly)					
Hepatitis A ⁹										HepA Series						

Range of recommended ages
 Catch-up immunization
 11-12 year old assessment

Major Barriers for Adolescents

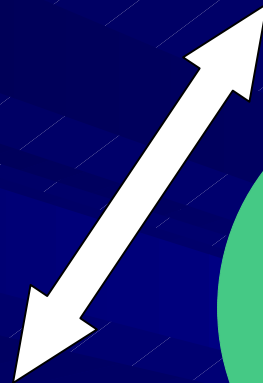
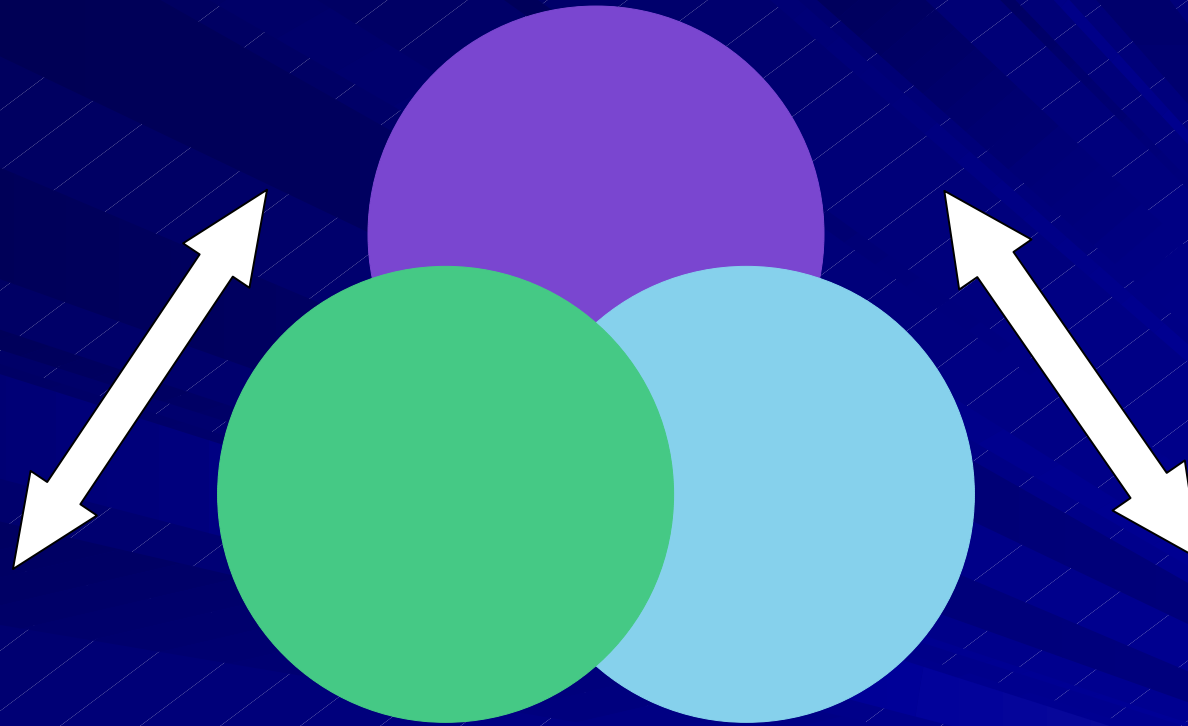
- Are adolescents being seen often enough?
 - Dependent upon insurance, having a medical home, schedules
- When they are seen, are they able to obtain vaccine?
 - Funding and reimbursement
 - Parent and provider attitudes

Are Adolescents Being Seen?

- High rates of uninsurance among adolescents
- 88%-92% of adolescents report having an identified source of primary care,^{1,2}
- HEDIS data: 34% of adolescents who participate in health plans have annual preventive visits³
- NCHS (CDC) data: 86% of 6- to 17-year-olds report at least one doctor's office, ED, or home visit within past year⁴

1. Klein JD, et al. *Arch Pediatr Adolesc Med.* 1998;152:676-682. 2. Klein JD, et al. *J Adolesc Health.* 1999;25:120-130. Slide from: Amy Middleman, MD;3.HEDIS=Health Plan Employer Data and Information Set; NCHS=National Center for Health Statistics1. McInerney TK, et al. *Pediatrics.* 2005;115:833-838;4. National Center for Health Statistics. *Health, United States, 2005.* Slide courtesy of Amy Middleman, MD, Med. and Larry Neinstein, MD.

Family/ Teen



Practitioner



Health System

HPV Vaccine Barriers

Practitioner Barriers

- Lack of knowledge
 - Updated recommendations
- Competing priorities
- Reimbursement issues
- Concern about acceptability, behavioral issues raised by vaccine
- Attitudes

Rupp R et al. *J Adolesc Health*. 2006;39:461-464.

Oster NV. *J Am Board Fam Pract*. 2005;18:13-19.

Daley MF et al. *Pediatrics*. 2006;118:2280-2289.

Family/Parent Barriers

- Lack of knowledge
 - Efficacy
- Concerns about appropriateness for early adolescents
 - Sexuality issues
- Cost concerns

Rosenthal SL et al. *J Adolesc Health*. 1995;17:248-254.

Dempsey AF et al. *Pediatrics*. 2006;117:1486-1493.

Teen Barriers

- Lack of knowledge
- Responding to parental ambivalence
- Consent/confidentiality
- Gearing message to appropriate development level

Slonim AB et al. *J Adolesc Health*. 2005;36:178-186.

Rosenthal SL. *J Adolesc Health*. 2005;37:177-178.

Zimet GD. *Curr Opin Obstet Gynecol*. 2006;18(suppl 1):S23-S28.

Health System Barriers

- Lack of insurance/medical home
- Inadequate information to families and providers
- Settings for care not conducive to immunizations
 - Acute settings, time constraints
- Diffusion of responsibility/fragmentation of care
- Lack of system for reminders/registry

Institute of Medicine. *Financing Vaccines in the 21st Century*. Washington, DC: National Academies Press; 2003.

McInerney TK et al. *Pediatrics*. 2005;115:833-838

What Strategies Can We
Use?

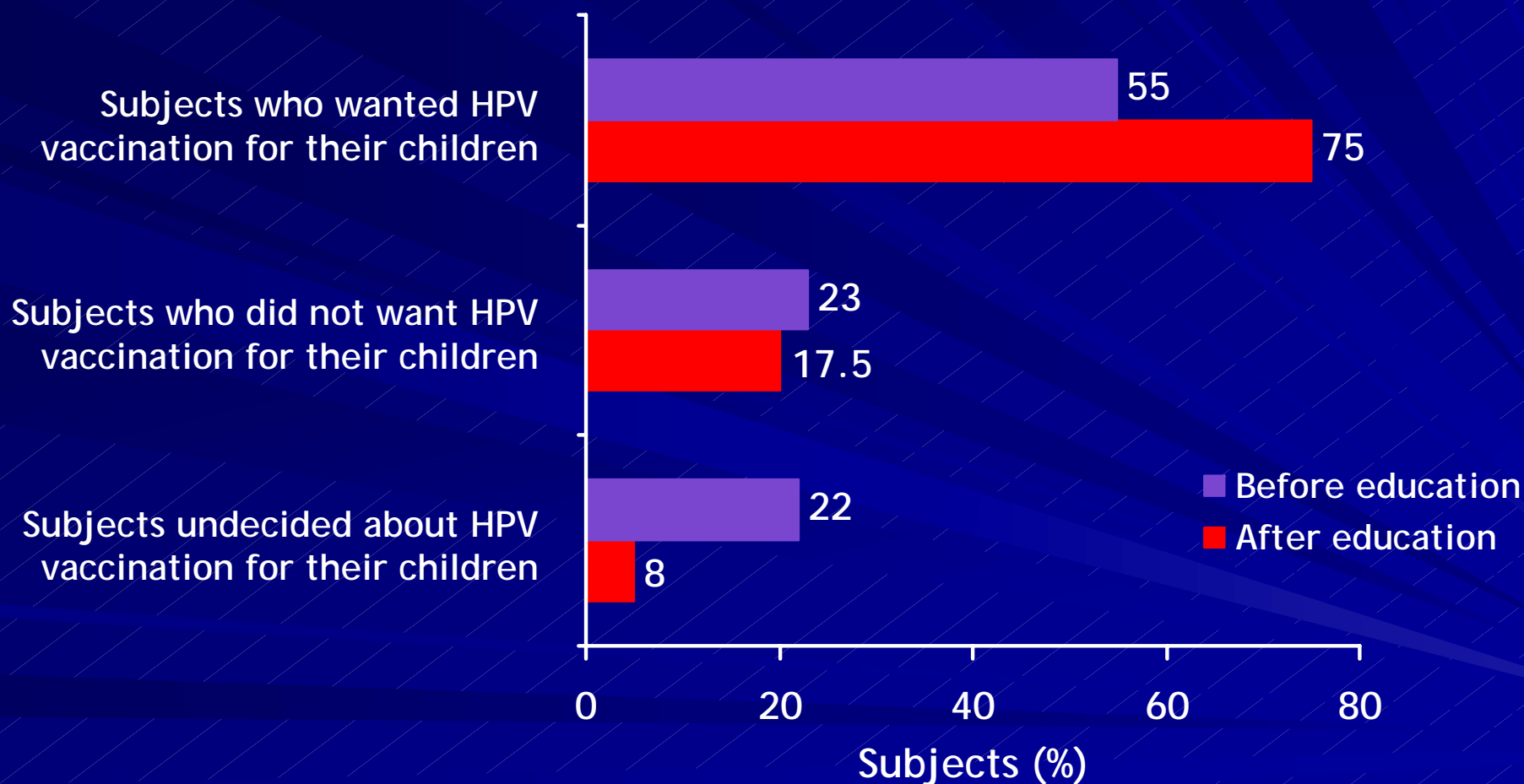
Provider Strategies

- Education; information about guidelines
- Adequate reimbursement
- Think creatively about all opportunities for immunization
- Use team approach in clinical setting
 - Identification; reminder systems, routine assessment, standing orders

Parent Strategies

- Education
- Written information
- Focused discussions on health
- Acceptance linked to:
 - Level of awareness
 - Preference for use later in adolescence
 - Concern about serious disease protection, not how disease transmitted

Educational Intervention Improves Parental Acceptance of HPV Vaccine



Subjects were parents or guardians of 10- to 15-year-old boys and girls.

Davis K et al. *J Lower Genit Tract Dis.* 2004;8:188-194. Slide courtesy of Amy Middleman, MD, Med.

Teen Strategies

- Age-appropriate information
- Support from parents
- Keep messages relevant to concerns, reality
- “Quick” vaccine visits
- Use alternative sites for vaccine delivery

System Strategies

- Ensure adequate reimbursement
- Clear guidelines on consent
- Consistent guidelines across sites and settings
- Immunization registries
- Focus on prevention visits
- Promote alternate sites for education and delivery

Alternative Immunization Sites

- Pharmacies
 - 44 states allow pharmacists to immunize¹
- School-based initiatives and clinics
- City/county clinics
- Family planning clinics
- Ob/gyn offices and clinics
- Emergency departments

• Immunization Action Coalition. www.immunize.org/laws/pharm.htm.

Slide courtesy of Amy Middleman, MD and Larry Neinstein, MD.

Should be rely on school
mandates?

Benefits of School Mandates

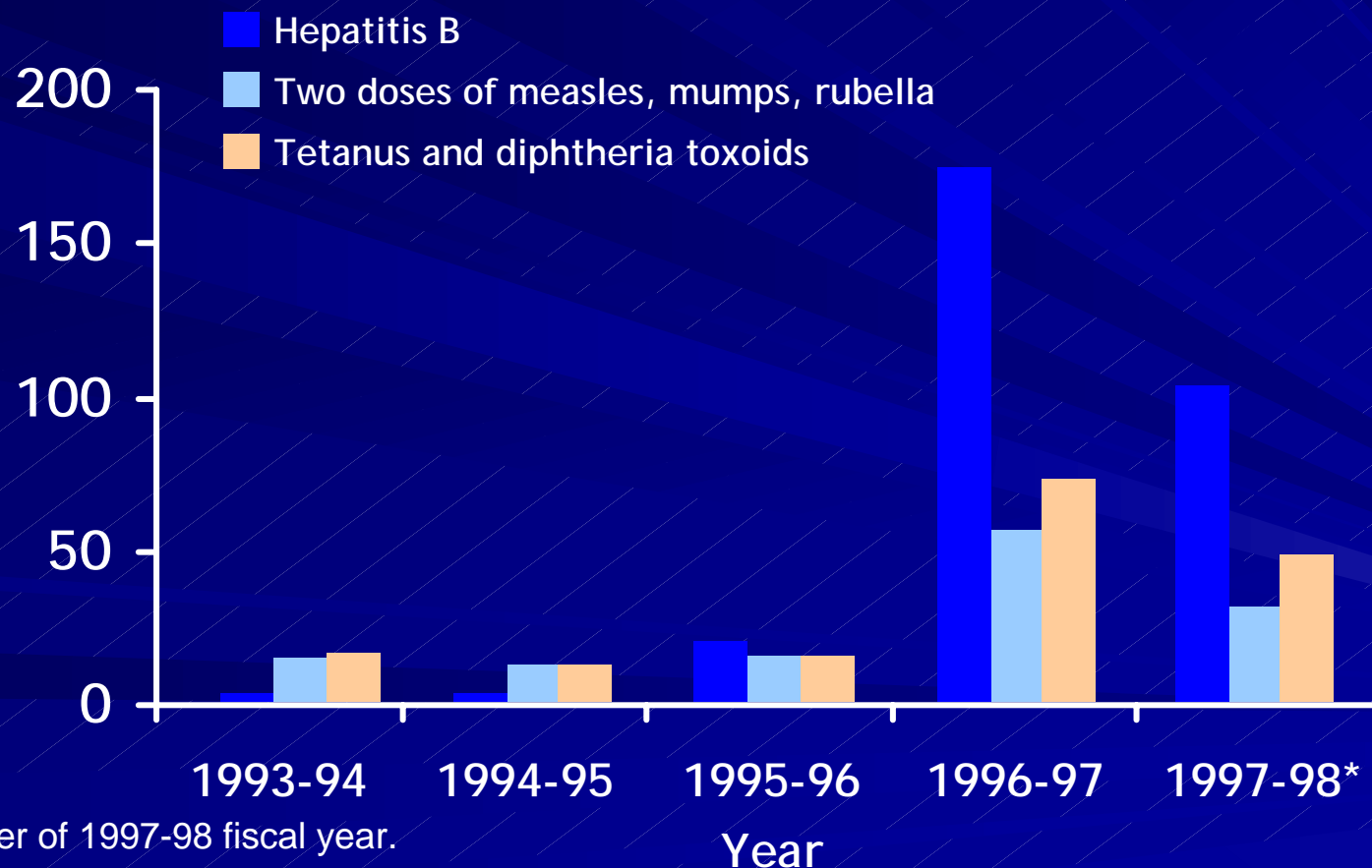
- System for standard implementation
- Eliminates disparities
 - VFC program
- Mandates often drive reimbursement, insurance coverage
- Herd immunity

Downside of School Mandates

- Need funding systems in place in order for them to work
- Resolution of political/philosophical differences
 - Public/provider support
- Adequate safety data needed
- Need adequate supply

Florida Hepatitis B Vaccine Doses After State-Mandated (Funded) Vaccination

Number of doses of selected vaccines administered by the Florida Department of Health to persons aged 10 to 14 years, by fiscal year—Florida, 1993-1998.

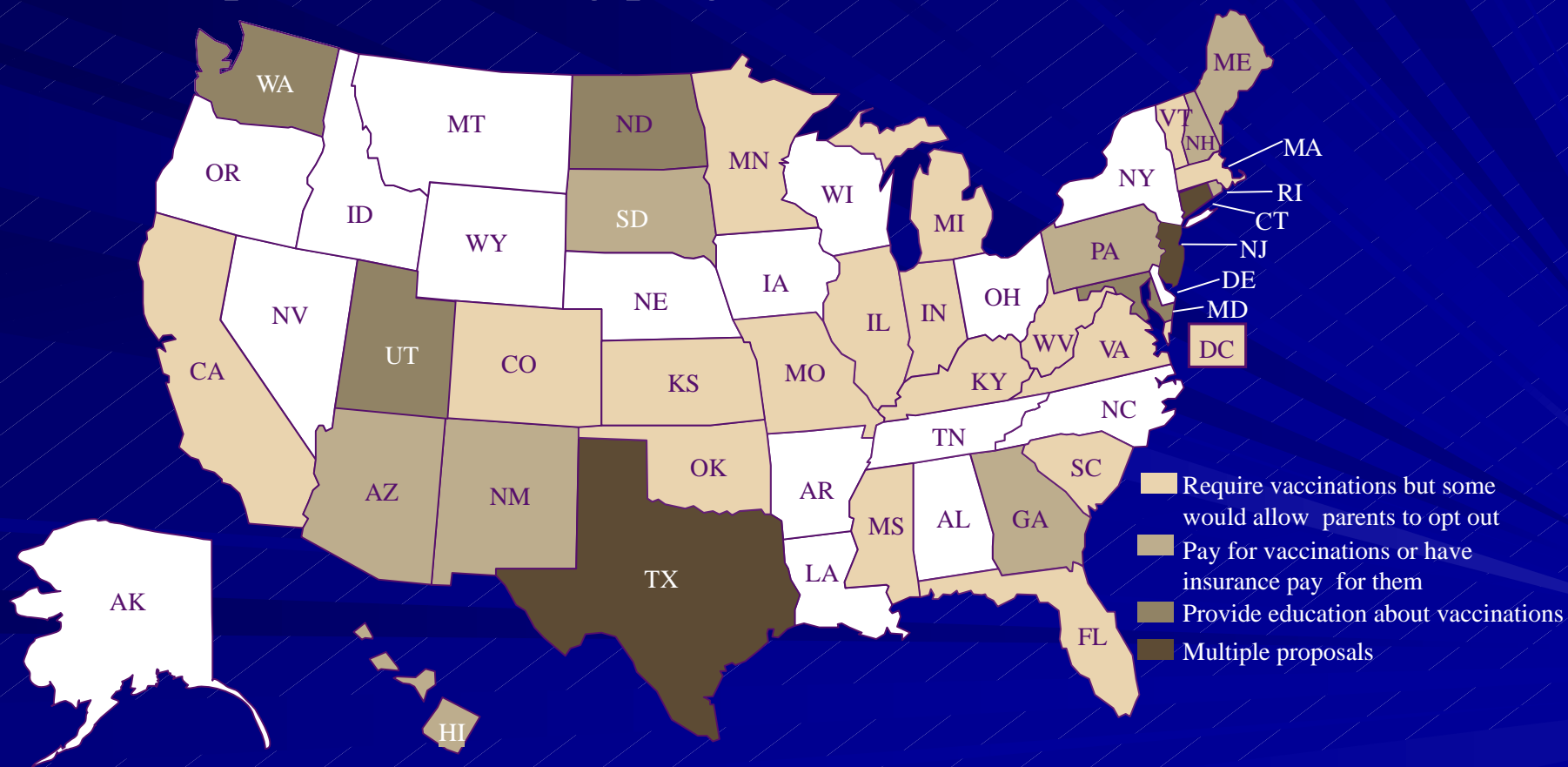


*First quarter of 1997-98 fiscal year.

CDC. *MMWR Morb Mortal Wkly Rep.* 1998;47:711-715.; slide courtesy of Amy Middleman, MD, Med.

State Proposals to Educate, Mandate, or Reimburse for HPV Vaccine

<http://www.ncsl.org/programs/health/HPVvaccine.htm>



Source: National Conference of State Legislators.

New Position Statement on Adolescent Immunization

- 2006, Society for Adolescent Medicine:
Establish 3 immunization platforms
 - 11- to 12-year visit: primary platform
 - 14- to 15-year visit: catch up on missed vaccines or complete multidose regimens
 - 17- to 18-year visit: update vaccinations that were missed or are newly recommended

Middleman AB, et al. *J Adolesc Health*. 2006;38:321-327;

Slide courtesy of Amy Middleman, MD, MEd.

Thank you.

Acknowledgment:

Amy Middleman, MD, MEd.

Larry Neinstein, MD