

Considerations for use of MCV4 among 2-10 year-olds

**Advisory Committee on Immunization Practices
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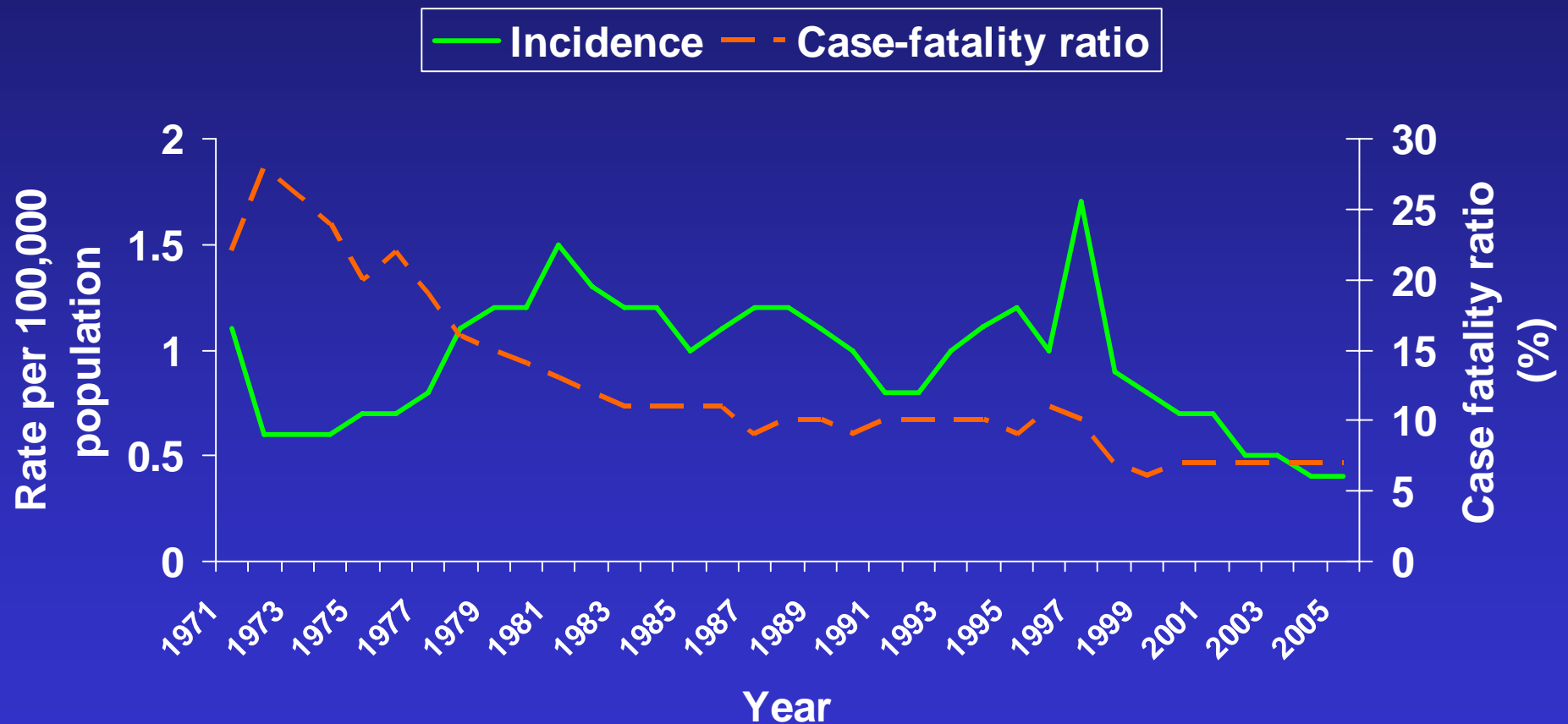
Objective

- Present data on meningococcal disease in 2-10 year-olds
- Identify key questions
- Prepare for ACIP vote in February, 2008

Outline

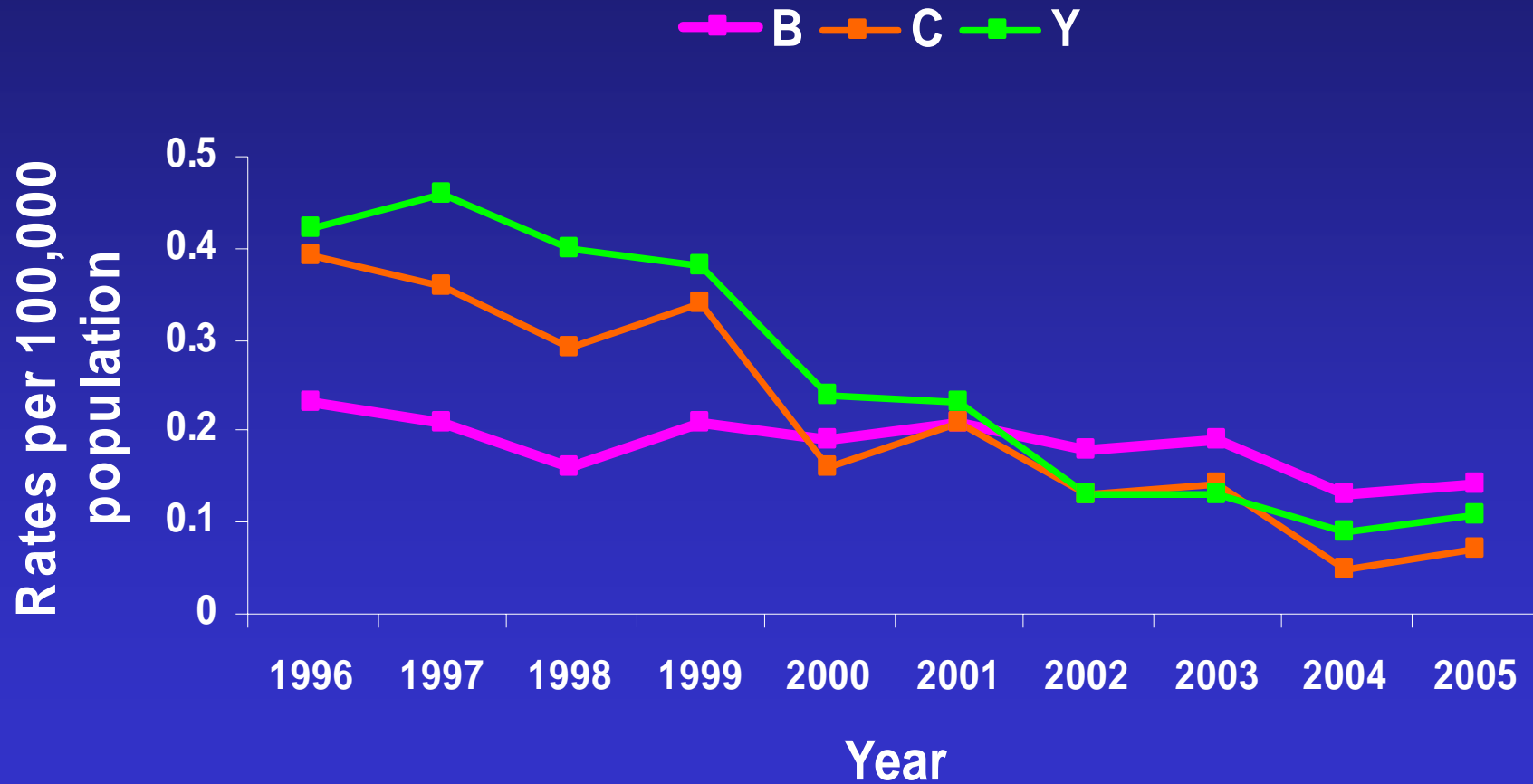
- Burden of disease
- Duration of protection
- Programmatic considerations

Incidence and case-fatality, U.S., 1970-2005



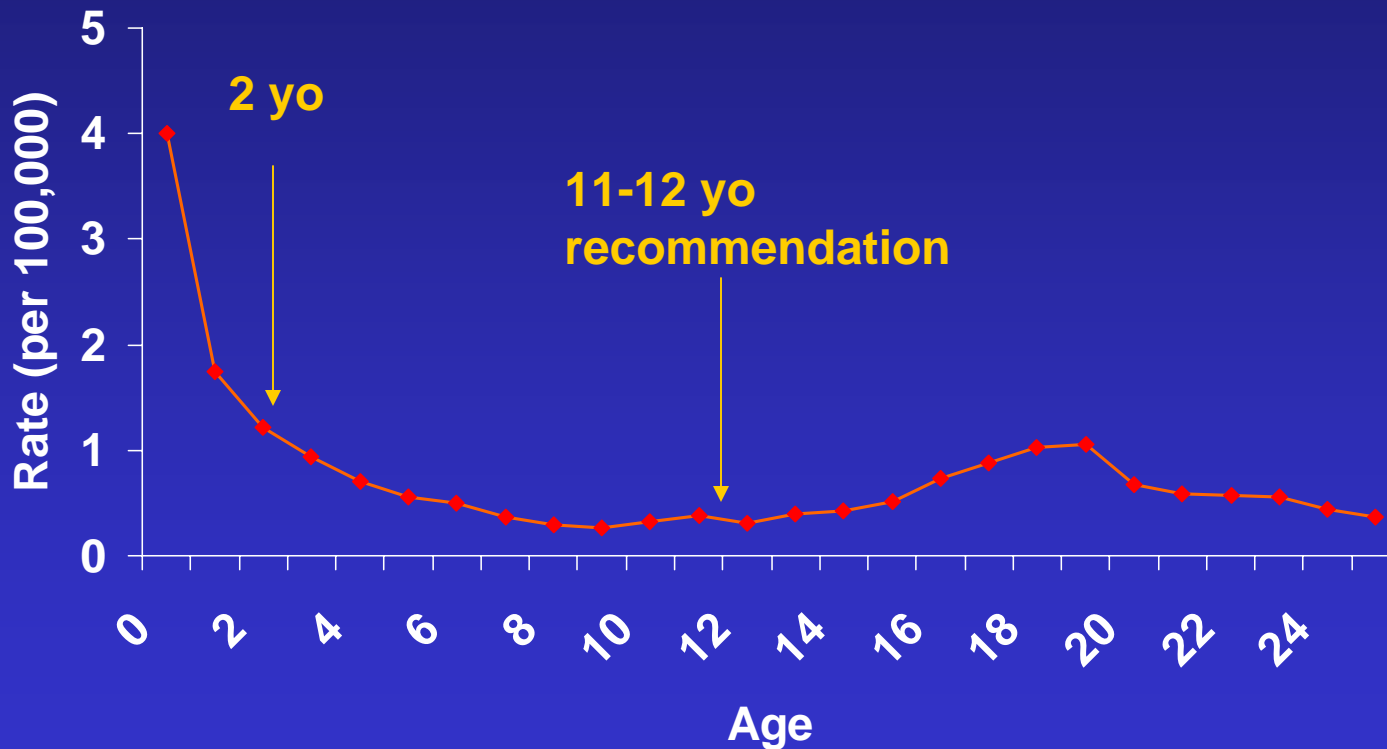
NETSS data

Rates of meningococcal disease by year and serogroup, ABCs, 1996-2005



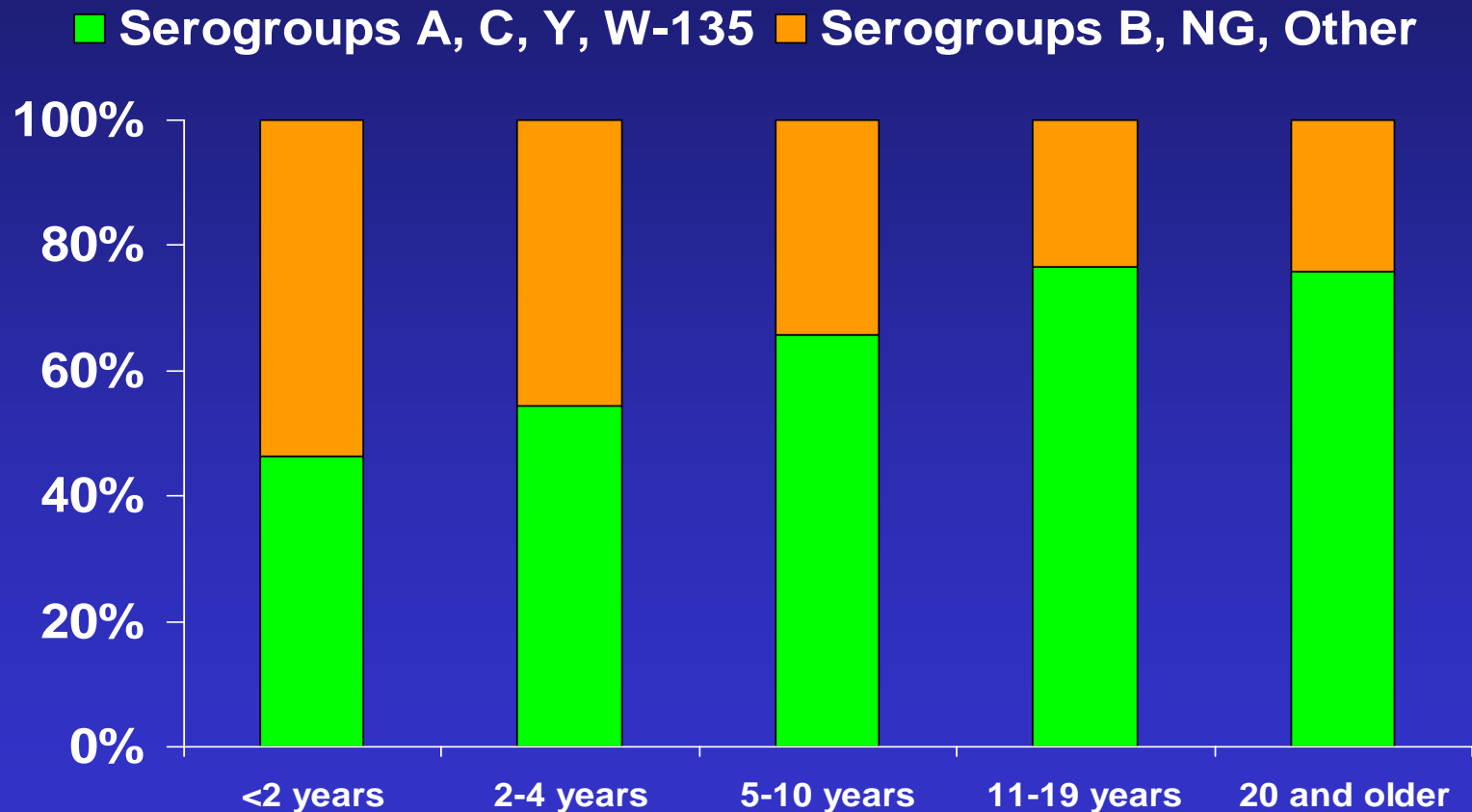
ABCs data excluding Oregon

Rate of meningococcal disease by single age year, all serogroups*



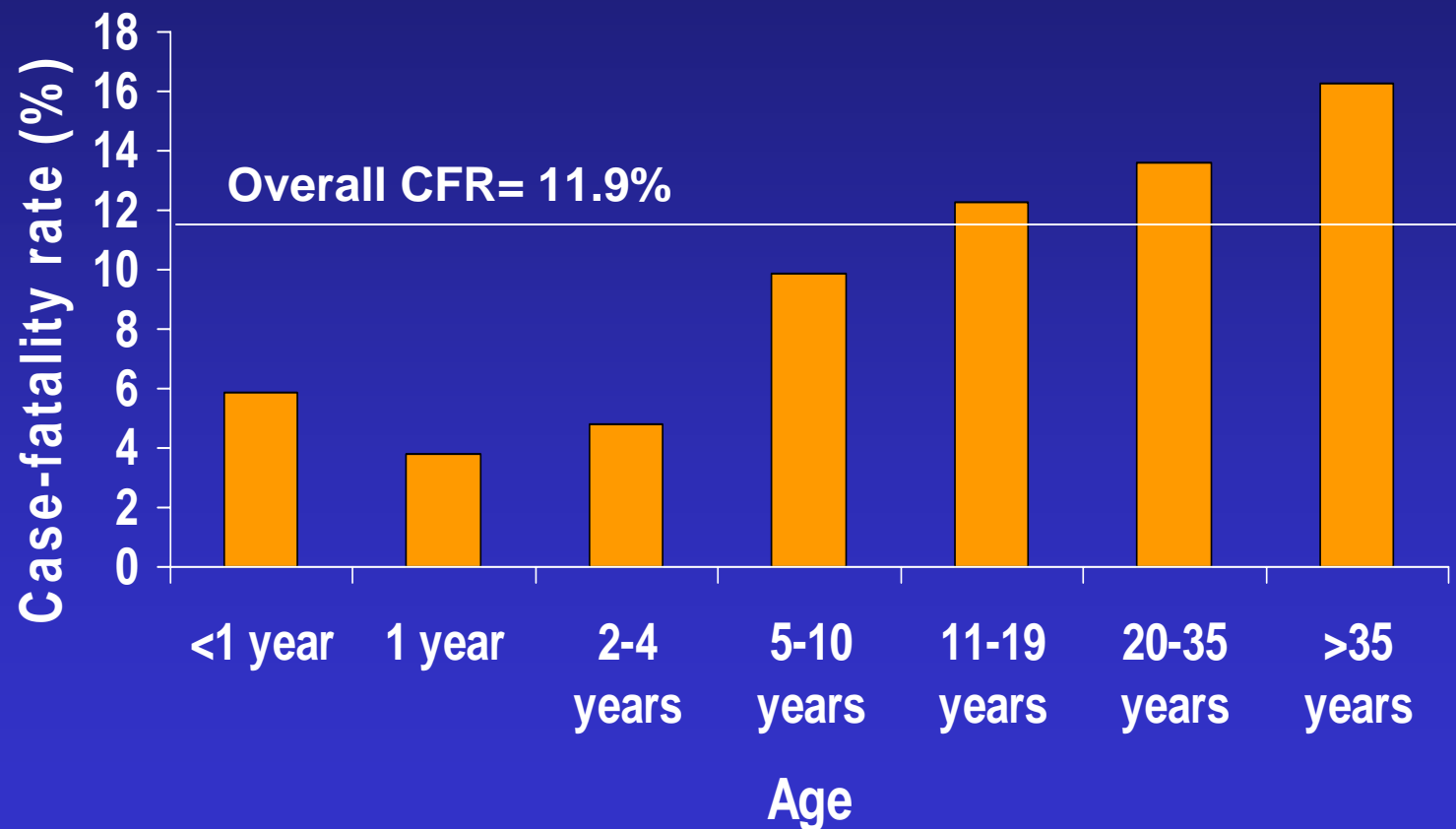
*NETTS data, average annual rate, 2003-2006

Vaccine-preventable proportion of meningococcal disease, 1996-2005*



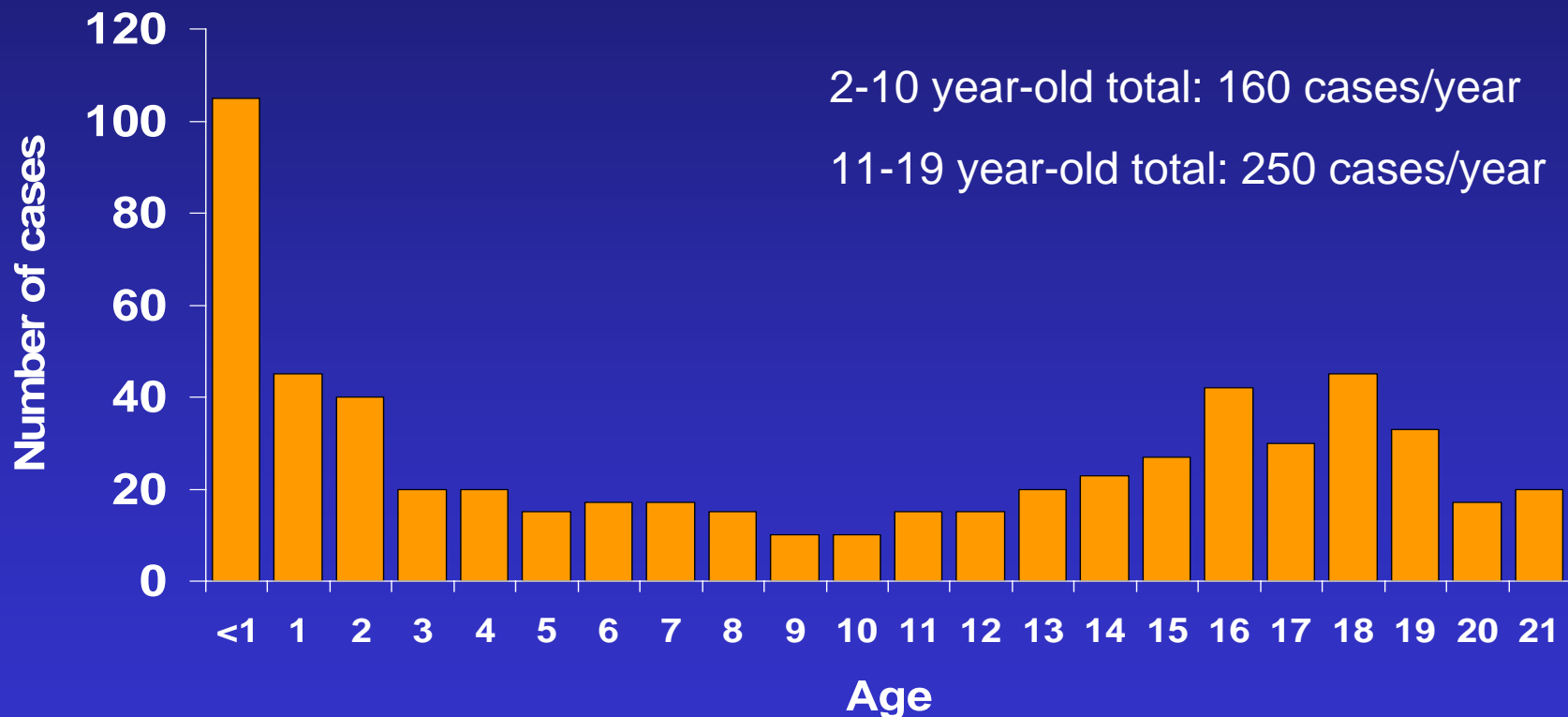
*ABCs excluding Oregon, 1996-2005. N=1820 (unknown serogroup excluded)

Meningococcal disease case-fatality rate by age, 1996-2005



ABCs data excluding Oregon

Estimated potential vaccine-preventable cases per year, United States, 0-21 years*



*Estimated cases of serogroup A, C, Y, and W-135 cases using ABCs cases from 1996-2005 and projected to the U.S. population

Key Messages: Epidemiology

- Burden of disease in 2-10 year-olds is relatively lower
 - 25% of cases in this age group in 2 year-olds
- Lower proportion of disease is vaccine-preventable compared to older age groups
- Risk of disease through late adolescence
 - Unlike Hib and S. pneumo

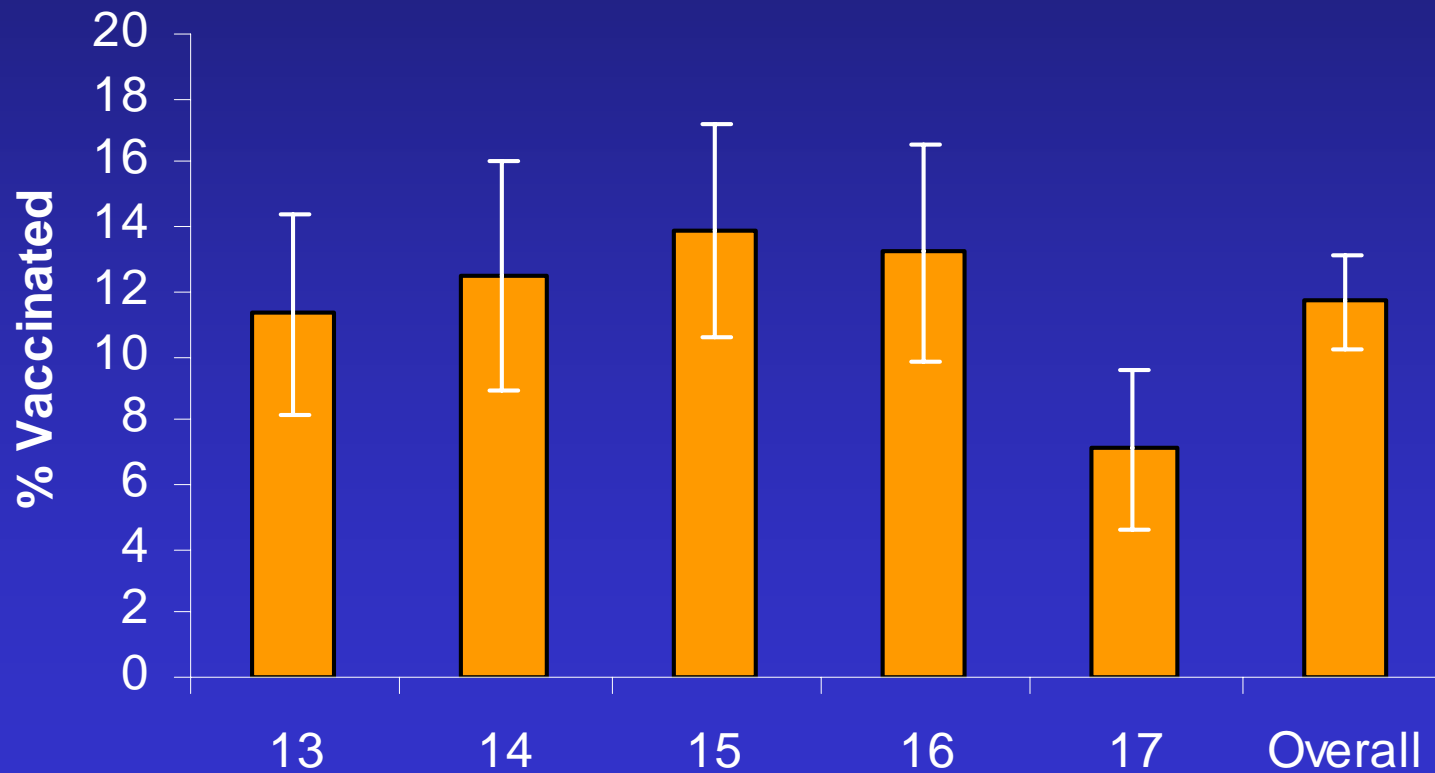
Duration of protection

- Conjugate vaccines theoretically have longer duration of protection
- ACIP working group has concerns that a single dose in this age group will not protect through late adolescence
- More data should be available in next several months

Programmatic considerations

- Recommendation for all adolescents to receive MCV4 is recent (June 2007)
- No routine vaccines currently recommended at 2 year-old visit
- Vaccine visit at 4-6 years-old after the elevated disease risk in this age group

Estimated coverage levels with MCV4 by age, 2006 NIS-Teen



MMWR. 2007;56:885-888.

Age in Years

MCV4 uptake among adolescents

- Uptake slower because of expected limitations in supply during first few years
- First of 3 new adolescent vaccines
- Effort from many organizations to increase vaccine coverage among adolescents and college freshmen
 - AAP, SAM, ACOG, AACH, CDC

Routine vaccination in the 2-10 year-old age group?

- Vaccinating at the downslope of the curve
 - Risk declines in children >2 years
- Duration of protection unknown
 - Likely will require revaccination before late adolescent increase in risk
- Implementation may be challenging

Perspectives on a permissive recommendation in the 2-10 year-old age group

- FDA licensure=permissive
- Financing
- May cause confusion
- Provider/parent choice important

Working group planning on vote in February, 2008

- Full evaluation: ACIP process
- More data on duration of protection
- Recent adolescent recommendations more established

On the horizon

- Vaccines for infants/young toddlers
- Serogroup B vaccines

Thank you!

- CDC, DBD
 - Thomas Clark
 - Kim Cushing
 - Paige Lewis
 - Nancy Messonnier
 - Elizabeth Zell

Discussion