

Quadrivalent Meningococcal Conjugate Vaccine (MenACWY) as a Foundation for Robust Protection: Navigating Adolescent Immunization



Prior to routine adolescent MenACWY vaccination in the US (1991–2002)^{1,2}

~1400–2800

IMD cases reported each year

62%

of cases occurred in people ≥11 years of age

75%

of cases reported in adolescents primarily due to serogroup C, W, and Y

Routine MenACWY vaccination helped substantially reduce IMD rates³

67%*

89%†

Adolescents aged **11-15 years**

48%*

77%†

Older adolescents/young adults aged **16-22 years**

Post-primary dose period (2006–2010)

Post-booster dose period (2011–2017)

Arrows represent declines in IMD caused by serogroups C, W, and Y. *Compared with pre-vaccine period (2000–2005). †Compared with post-primary dose period.

- Incidence of serogroup B IMD is **relatively uncommon in young adolescents aged 11-14 years; ~4 cases/year** in the US⁴⁻⁸
- The sustained low number of serogroup B cases post-MenACWY vaccine adoption indicate the **absence of serogroup replacement**⁵⁻⁹

ACIP meningococcal vaccination recommendations for healthy adolescents as of October 2023^{10,11}

Without Pentavalent

With Pentavalent (QPB schedule)

11-12 Years

MenACWY Quadrivalent

MenACWY Quadrivalent

16-18 Years

MenACWY Quadrivalent

MenB Monovalent

MenB Monovalent

MenABCWY Pentavalent

MenB Monovalent

Recommended for routine use

Option through shared clinical decision making

MenABCWY vaccine may be used *as an option* only when immunization with MenACWY and MenB vaccines are indicated at the same visit¹⁰

Possible consequences of eliminating or reducing MenACWY vaccination coverage at 11-12 year

01

Could fuel **vaccine hesitancy** and **sow doubt in other established vaccination** recommendations

02

Lower vaccination coverage at age 16 (vs 11-12), leaving more persons **unprotected** during time when characteristic social behaviors could increase risk (college living, military barracks, bar visits, intimacy)^{12,13}

03

Behaviors that put adolescents **at risk begin prior to age 16**, as do cases of IMD^{13,14,15}

04

Disease resurgence, as experienced with other vaccine-preventable diseases (eg, *H. influenzae* b) when vaccination rates decrease

Other Considerations

Compliance with well exams is significantly higher at age 11-12 years than it is in older adolescents¹⁶

In addition, it is important to consider the **persistence of immunity** offered by available vaccines against the different meningococcal serogroups^{4,17}

The US MenACWY immunization program has contributed to reducing IMD

MAT-US-2400547 EXP 2/2026

Abbreviation:

ACIP, Advisory Committee on Immunization Practices; B, serogroup B meningococcal vaccine; IMD, invasive meningococcal disease; P, pentavalent meningococcal vaccine; Q, quadrivalent meningococcal vaccine.

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