



Department of Health Services



# MENINGOCOCCAL VACCINE RECOMMENDATIONS

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Stephanie Schauer, Ph.D.  
Immunization Program Manager

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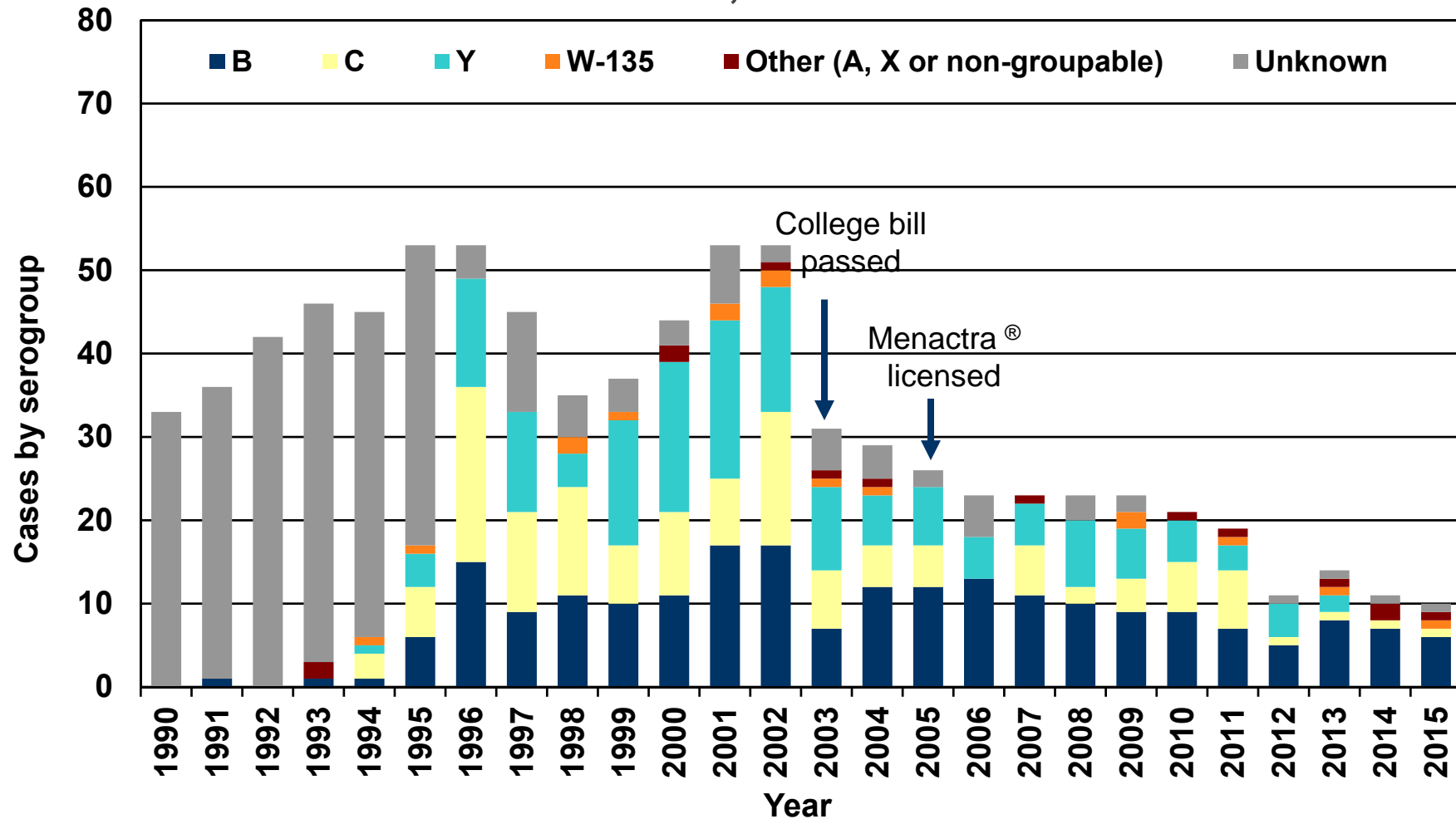
# Meningococcal Disease

- Bacterial infection caused by *Neisseria meningitidis*.
- Most commonly presents as meningitis (about 50% of cases) or bacteremia (38% of cases).
- Overall case-fatality ratio is 10-15% and as many as 20% of survivors have long-term sequelae such as neurologic disability, limb or digit loss, and hearing loss.

# Meningococcal Disease

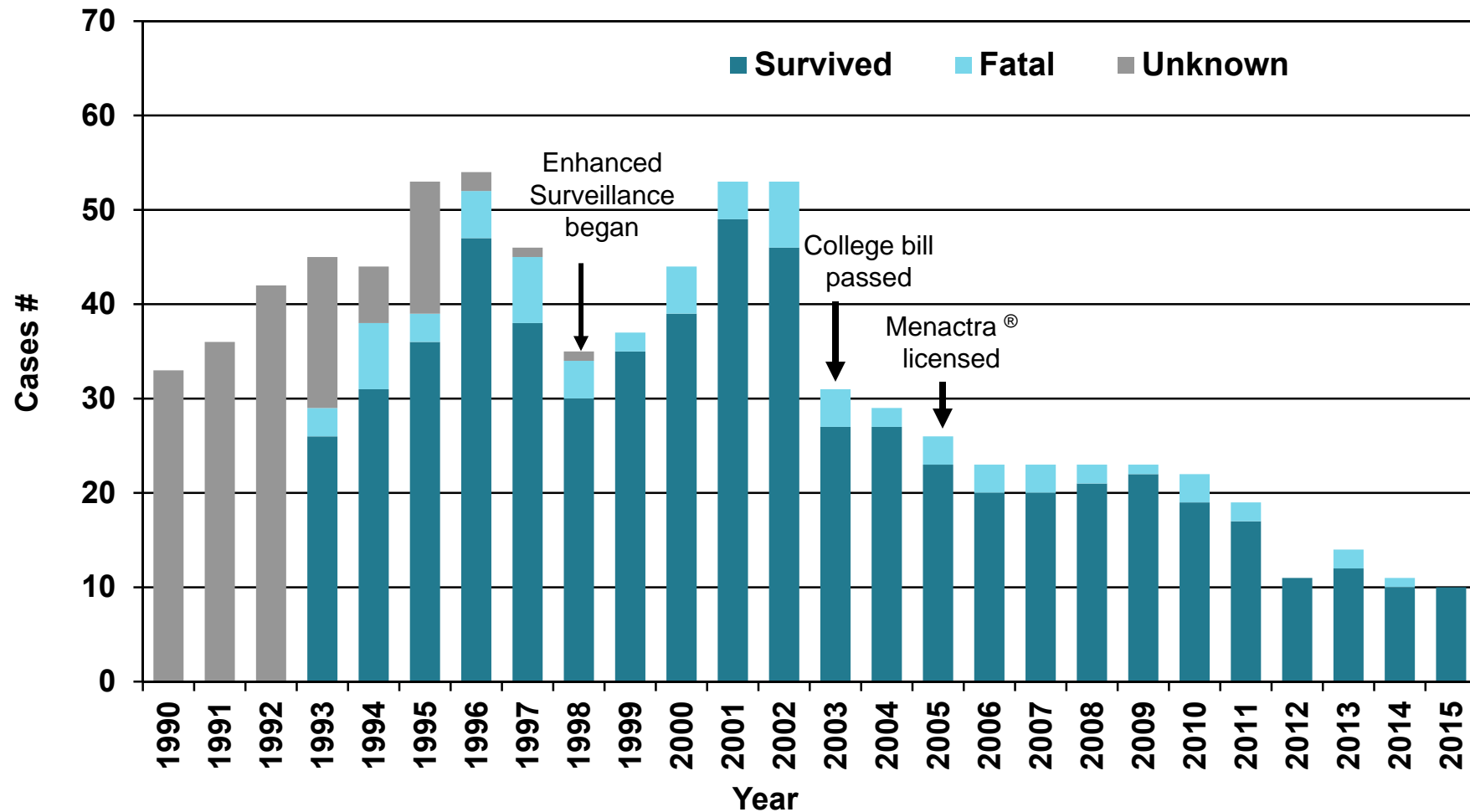
- The meningococci bacteria are classified into 13 distinct serogroups.
- Almost all invasive disease is caused by 1 of 5 serogroups: A, B, C, Y, and W.

# Annual Invasive Meningococcal Disease Cases by Serogroup. Wisconsin, 1990–2015



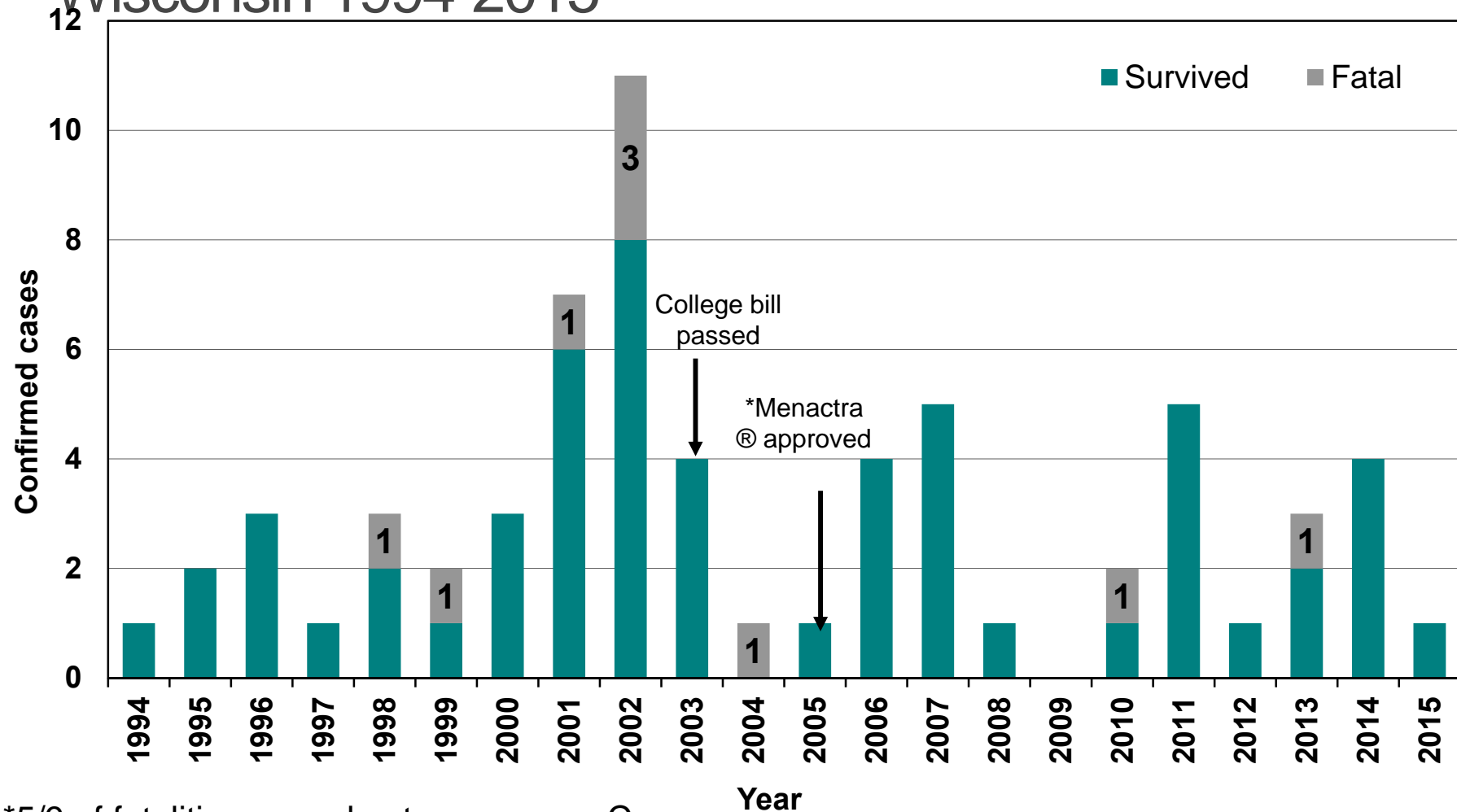
n=839

# Annual Meningococcal Disease Cases by Outcome Wisconsin 1990–2015



n=841

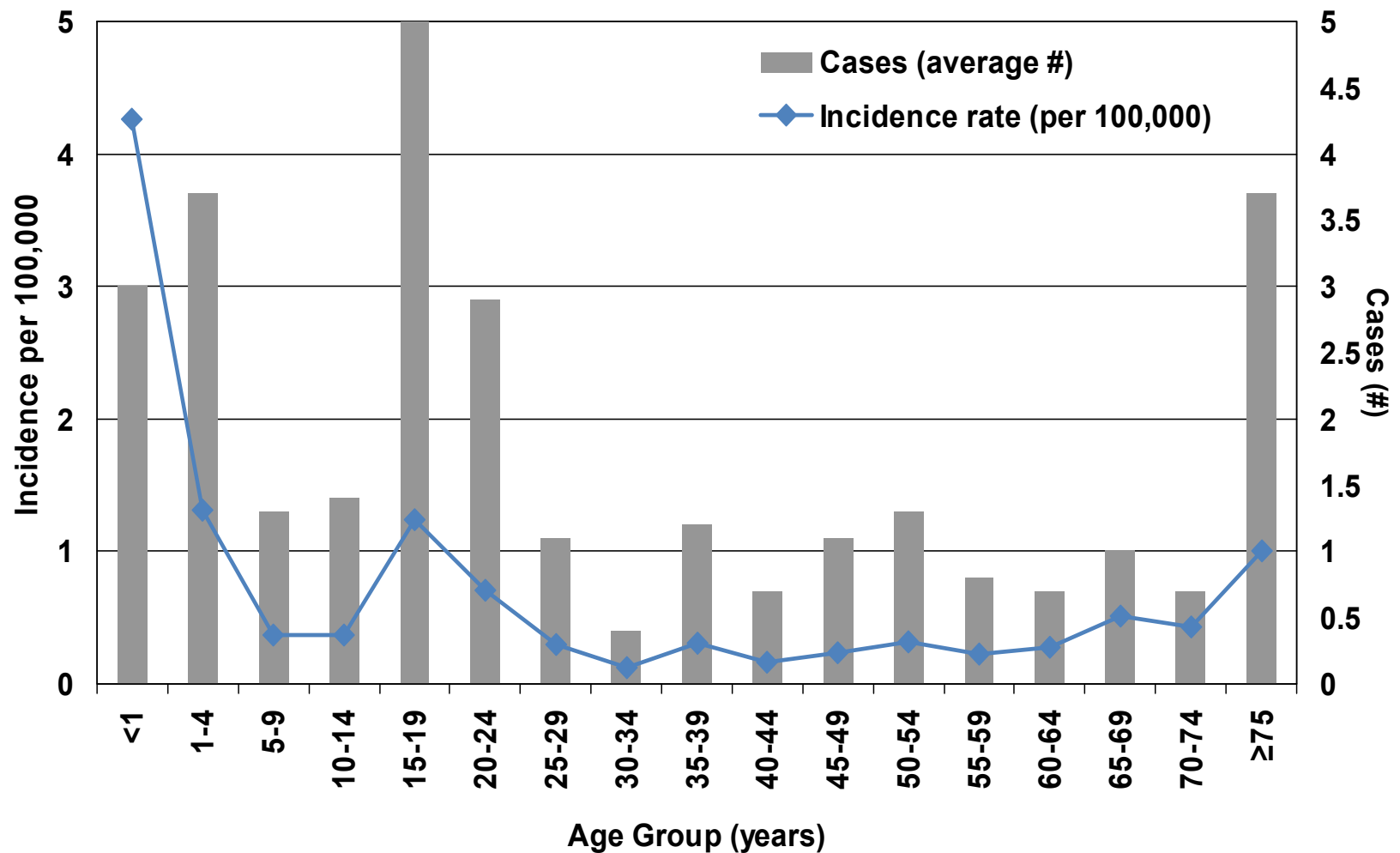
# Annual Meningococcal Disease Cases in College/Technical School Students by Outcome Wisconsin 1994-2015



\*5/9 of fatalities were due to serogroup C

n=65

# Average Annual Cases and Incidence of Meningococcal Disease by Age Group. Wisconsin 1998–2014



n=452

# Meningococcal ACWY

Three conjugate vaccines are licensed in the U.S.:

- Menactra (Men ACWY-D), sanofi pasteur
  - Age indication: 9 months-55 years
- Menveo (MenACWY-CRM), Novartis
  - Age indication: 2 months-55 years
- MenHibrix (Hib-MenCY-TT), GlaxoSmithKline
  - Also contains Hib
  - Is licensed as a 4-dose series for children aged 12-18 months



# ACIP Recommendations- MenACWY

- Routine vaccination of all individuals with either MenACWY vaccine at:
  - One dose administered at 11-12 years of age, as part of the adolescent platform (which includes Tdap and HPV)
  - A booster dose should be administered at age 16 years.
- For adolescents who receive their first dose at age 13-15 years, a one-time booster should be given at age 16-18 years.
- Adolescents receiving their first dose at or after 16 years do not need a booster dose unless they become at increased risk for disease.
- Is also the polysaccharide vaccine, MPSV4, which is for use in individuals 56 years of age and older.

# MenACWY High Risk Recommendations (1)

Individuals at high risk of disease include those with:

- Persons aged  $\geq 2$  months with certain medical conditions such as functional or anatomical asplenia (including sickle cell disease) and persistent complement deficiencies.
- Special populations such as unvaccinated first year college students living in residence halls and military recruits.



# MenACWY High Risk Recommendations (2)

Individuals at high risk of disease include those with:

- Travelers aged  $\geq 9$  months to countries where *N. meningitidis* is hyperendemic or epidemic.
- Microbiologists routinely exposed to *N. meningitidis*.

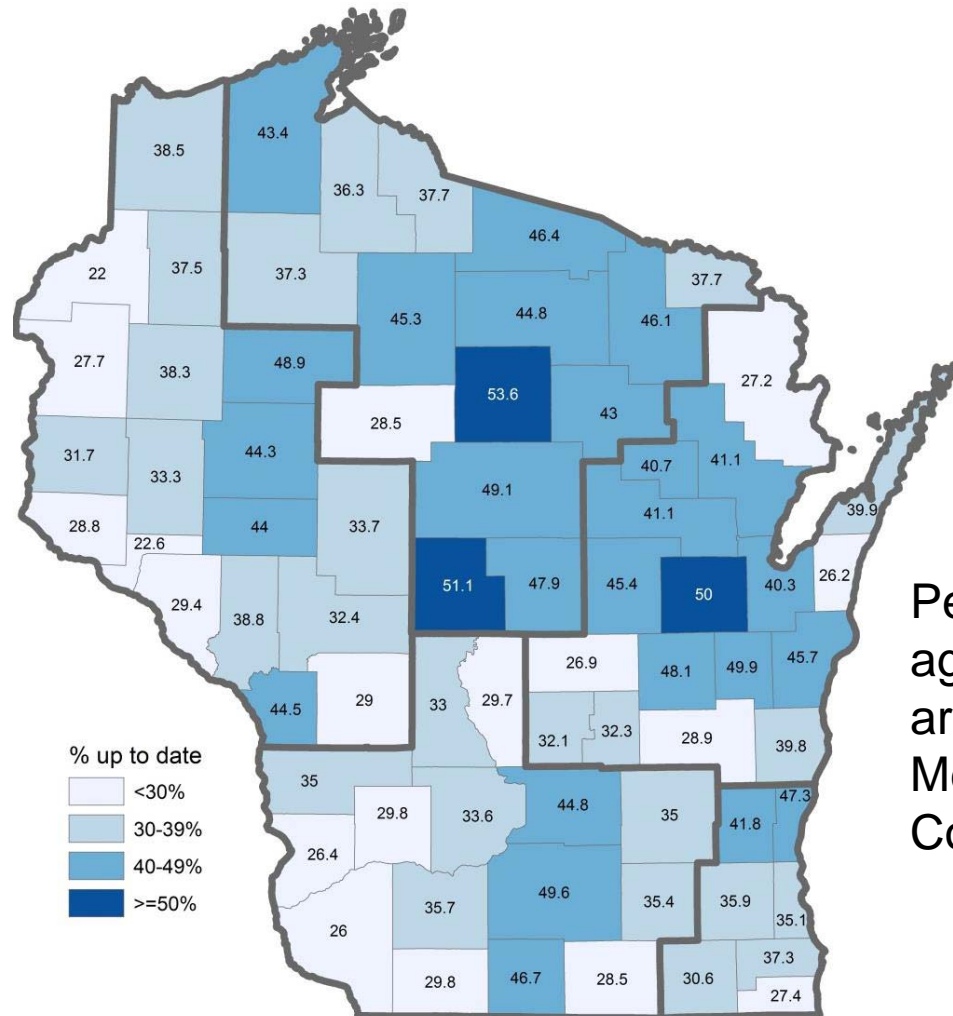
# WIR Forecasting: MenACWY

- MenACWY: WIR will recommend a dose for all clients once they turn 11 years, and will forecast the booster dose.
- Vaccine group: “Meningo”
- WIR does not forecast high risk schedules

# WIR Forecasting: MenACWY

Current Age: 11 years, 5 months, 24 days						
Vaccines Recommended by Selected Tracking Schedule				Authorize Overrides	Add Selected	
Select	Vaccine Group	Vaccine	Earliest Date	Recommended Date	Overdue Date	Latest Date
<input checked="" type="checkbox"/>	<a href="#">HepA</a>		01/27/2006	01/27/2006	01/27/2007	
<input checked="" type="checkbox"/>	<a href="#">HepB</a>		01/27/2005	01/27/2005	04/27/2005	
<input checked="" type="checkbox"/>	<a href="#">HPV</a>		01/27/2014	01/27/2016	01/27/2031	01/26/2032
<input type="checkbox"/>	<a href="#">Influenza</a>		07/27/2005	08/01/2016	01/27/2006	
<input checked="" type="checkbox"/>	<a href="#">Meningo</a>		01/27/2007	01/27/2016	01/27/2024	01/26/2027
<input checked="" type="checkbox"/>	<a href="#">MMR</a>		01/27/2006	01/27/2006	01/27/2009	
<input checked="" type="checkbox"/>	<a href="#">Pertussis/Tdap</a>	Tdap	01/27/2015	01/27/2016	01/27/2018	
<input checked="" type="checkbox"/>	<a href="#">Polio</a>		03/10/2005	03/27/2005	04/27/2005	
<input checked="" type="checkbox"/>	<a href="#">Td</a>	Tdap	01/27/2012	01/27/2012	02/27/2012	
<input checked="" type="checkbox"/>	<a href="#">Varicella</a>		01/27/2006	01/27/2006	01/27/2009	01/26/2018

# Meningococcal (MenACWY) Immunization Rates, 2015



Percent of adolescents aged 17-18 years who are up-to-date with MenACWY vaccine, by County of residence

# MenB Vaccines

Two vaccines are licensed in the U.S.:

- Trumenba (MenB-Fhbp) by Wyeth
  - 3-dose series, administered at 0, 2 and 6 months
  - A 2-dose series is FDA approved, but there currently is no recommendation from ACIP regarding this schedule.
- Bexsero (MenB-4C) by Novartis
  - 2-dose series, administered at least 4 weeks apart

Licensure- age indication:

Routine use: individuals aged 10-25 years

High risk use: individuals aged  $\geq 10$  years



## ACIP Recommendations-MenB

- In June 2015, the ACIP recommended that adolescents and young adults aged 16-23 years may be vaccinated with a serogroup B meningococcal (MenB) vaccine to provide short-term protection against most strains of serogroup B meningococcal disease.
- Recommendation is a GRADE B.



# ACIP Recommendations-MenB

“The current low prevalence of disease, coupled with the fact that important data for making policy recommendations for MenB vaccines are not yet available, resulted in ACIP determining that insufficient evidence exists to make a routine public health recommendation that all adolescents be vaccinated with MenB vaccine.

Given the seriousness of meningococcal disease and the availability of licensed vaccines, ACIP agreed that sufficient evidence exists to encourage individual clinical decision making<sup>1</sup>.”

<sup>1</sup>Excerpted from ACIP statement, MMWR 2015;64:1171-1175

# MenB Vaccines

- The preferred age for MenB vaccination is 16-18 years.
  - Based on the available data, administering the vaccine in later adolescence was preferable to maximize the likelihood that protection would last into the highest age-related risk period.
- Vaccines are **not** interchangeable; the same product must be used for all doses.

# MenB- High Risk Recommendations

Certain persons aged  $\geq 10$  years who are at increased risk should receive MenB vaccine, including:

- Persistent complement component deficiencies
- Anatomic or functional asplenia
- Microbiologists routinely exposed to *N. meningitidis*
- Persons identified as at increased risk because of a serogroup B outbreak

Note: these vaccines are not licensed or recommended for high risk individuals aged 2 months-9 years

# WIR Forecasting- MenB

- Once a dose of MenB is administered and entered into WIR, WIR will forecast subsequent doses, and will indicate which product should be used (since the two brands are not interchangeable)
- Vaccine group: Meningo B
- WIR does not forecast high risk schedules

# WIR Forecasting- MenB

Current Age: 16 years, 4 months, 13 days

Vaccines Recommended by Selected Tracking Schedule						
Select	Vaccine Group	Vaccine	Earliest Date	Recommended Date	Overdue Date	Latest Date
<input checked="" type="checkbox"/>	HepA		11/01/2000	11/01/2000	11/01/2001	
<input checked="" type="checkbox"/>	HepB		10/03/2015	10/03/2015	11/05/2015	
<input checked="" type="checkbox"/>	HPV		11/01/2008	11/01/2010	11/01/2025	10/31/2026
<input type="checkbox"/>	Influenza		08/01/2016	08/01/2016	06/03/2017	
<input checked="" type="checkbox"/>	Meningo		11/01/2001	11/01/2010	11/01/2018	10/31/2021
<input checked="" type="checkbox"/>	MMR		01/26/2016	01/26/2016	01/26/2016	
	Pertussis/Tdap		Complete			
<input checked="" type="checkbox"/>	Polio		01/25/2016	01/25/2016	03/28/2016	
<input checked="" type="checkbox"/>	Td	Td	01/25/2016	01/25/2016	02/28/2016	
	Varicella		Complete			

WIR does not currently recommend Category B vaccines such as Meningococcal B vaccine.

Those vaccines are 'invoke on use' and will display in the recommendations once the series has started.

Current Age: 12 years, 5 months, 29 days

Vaccines Recommended by Selected Tracking Schedule						
Select	Vaccine Group	Vaccine	Earliest Date	Recommended Date	Overdue Date	Latest Date
<input checked="" type="checkbox"/>	HepA		01/27/2005	01/27/2005	01/27/2006	
<input type="checkbox"/>	HepB		08/19/2016	08/19/2016	09/22/2016	
<input checked="" type="checkbox"/>	HPV		01/27/2013	01/27/2015	01/27/2030	01/26/2031
<input type="checkbox"/>	Influenza		08/01/2017	08/01/2017	10/22/2017	
<input checked="" type="checkbox"/>	Meningo		01/27/2006	01/27/2015	01/27/2023	01/26/2026
<input checked="" type="checkbox"/>	Meningo B	Meningococcal B, Trumenba	07/21/2016	07/21/2016	08/18/2016	
<input type="checkbox"/>	MMR		08/08/2016	08/08/2016	09/11/2016	
	Pertussis/Tdap		Complete			
<input type="checkbox"/>	Polio		08/19/2016	08/19/2016	10/22/2016	
<input type="checkbox"/>	Td	Td	08/19/2016	08/19/2016	09/22/2016	
<input type="checkbox"/>	Varicella		08/08/2016	08/08/2016	08/08/2016	01/26/2017



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Questions?

