Meningococcal Vaccine Policies among Colleges and Universities — United States, 2017

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National Immunization Conference

May 16th, 2018
Challenges with meningococcal disease and college students

- College students at risk for meningococcal disease
- Outbreaks continue to occur at colleges/universities
- Meningococcal vaccine policy evolved over time
Challenges with meningococcal disease and college students

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Meningococcal disease among adolescents and young adults by serogroup, 2014-2016

Source: National Notifiable Diseases Surveillance System (NNDSS) data with additional serogroup data from Active Bacterial Core surveillance (ABCs) and state health departments
Unknown serogroup and other serogroups excluded
Challenges with meningococcal disease and college students

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- Meningococcal vaccine policy evolved over time
12 University Based Serogroup B Clusters/Outbreaks†, 2008–2018

![Bar chart showing total cases for different outbreaks](chart.png)

- PA 2009
- NJ 2013
- RI 2015
- CA 2016
- WI 2016
- MA 2017

*Where CDC consulted*
Challenges with meningococcal disease and college students

College students at risk for meningococcal disease

Outbreaks continue to occur at colleges/universities

Meningococcal vaccine policy evolved over time
Prevention and Control of Meningococcal Disease

Recommendations of the Advisory Committee on Immunization Practices (ACIP)
Meningococcal vaccines
Timeline of ACIP Recommendations

MenACWY conjugate vaccine recommended for persons 11–18 years

2005

Booster dose of MenACWY conjugate vaccine added for adolescents 16 years of age

2010

MenB vaccine recommended for adolescents and young adults 16–23 years of age

2015
ACIP recommendations

Category A
Recommendations for all persons in age- or risk-factor based group

Category B
Recommendations are made with individual clinical decision making
Timeline of ACIP Recommendations

- **2005**: MenACWY conjugate vaccine recommended for persons 11–18 years
- **2010**: Booster dose of MenACWY conjugate vaccine added for adolescents 16 years of age
- **2015**: MenB vaccine recommended for adolescents and young adults 16–23 years of age
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Challenges with meningococcal disease and college students

- College students remain at risk for meningococcal disease
- Outbreaks continue to occur at colleges/universities
- Meningococcal vaccine policy changed over time
Challenges with meningococcal disease and college students

- College students remain at risk for meningococcal disease
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Survey of college health professionals regarding meningococcal vaccine policy
Survey of college meningococcal policies

- Assess if meningococcal vaccines required or recommended
- Evaluate school policy by school characteristics, cases at that institution or nearby outbreaks of meningococcal disease
- Describe plans for meningococcal outbreak
- Assess knowledge of current U.S. adolescent meningococcal vaccine policies
Methods

- American College Health Association (ACHA):
  - Association of over 900 institutions, comprised of both 2- and 4-year schools, as well as public and private schools

- CDC collaborated with ACHA to conduct the survey
Methods

January 2017

985 U.S. institutions

352 completed surveys
Methods

January 2017

985 U.S. institutions

352 completed surveys

36% response rate
Survey Responders

- Private, 4-year schools: 174 (49%)
- Public, 4-year schools: 153 (43%)
- Public, 2-year schools: 22 (6%)
Survey Responders

Under 5,000 students  147 (42%)
5,000–19,999 students  132 (38%)
≥20,000 students  70 (20%)
Survey Responders

Physicians                50 (14%)
Clinical Medical Staff*   151 (43%)
Clinic Administrator      104 (30%)
Other/unknown            47 (13%)

*Nurse, Nurse Practitioner or Physicians Assistant
College Meningococcal Vaccine Policy Survey Results

- Vaccine policy: Required or Recommended
- Policy by demographic and other factors
- School measures for immunization compliance
- Outbreak preparation
- Provider knowledge of vaccine policy
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- Outbreak preparation
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College Policy for Meningococcal Vaccines: Required

- **130 institutions** (37%): MenACWY only
- **49 institutions** (14%): "Meningococcal" (not specified which vaccine)
- **166 institutions** (47%): No requirements
- **7 institutions** (2%): MenACWY + MenB
- **7 institutions** (0%): MenB only
186 schools (53%) required some form of meningococcal vaccine

- 130 institutions (37%)
- MenACWY only
- 7 institutions (2%)
- MenACWY + MenB
- 49 institutions (14%)
- "Meningococcal"
- 166 institutions (47%)
- No requirements
College Policy for Meningococcal Vaccines: Required

186 schools (52.8%) required some form of meningococcal vaccine

- 130 institutions (37%)
  - MenACWY only
  - MenB only
  - MenACWY + MenB
  - "Meningococcal"

- 49 institutions (14%)
  - No requirements

- 7 institutions (2%)

166 institutions (47%)
### College Policy for Meningococcal Vaccines: Recommended

From 166 schools without any requirements

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Institutions</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>MenACYW only</td>
<td>37</td>
<td>22%</td>
</tr>
<tr>
<td>MenB only</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>MenACYW + MenB</td>
<td>68</td>
<td>41%</td>
</tr>
<tr>
<td>&quot;Meningococcal&quot;</td>
<td>42</td>
<td>25%</td>
</tr>
<tr>
<td>No recommendations</td>
<td>18</td>
<td>11%</td>
</tr>
</tbody>
</table>

1 institution with no response
College Policy for Meningococcal Vaccines: Recommended

From 166 schools without any requirements

- 37 institutions (22% of respondents) recommended MenACWY only.
- 1 institution (1% of respondents) recommended MenB only.
- 41% of institutions recommended MenACWY + MenB.
- 25% of institutions recommended "Meningococcal" without specifying.
- 18 institutions (11% of respondents) did not recommend any meningococcal vaccine.

18 schools (5% of all responders) had no policy regarding meningococcal vaccine.
College Meningococcal Vaccine Policy Survey Results

- Vaccine policy: Required or Recommended
- Policy by demographic and other factors
- School measures for immunization compliance
- Outbreak preparation
- Provider knowledge of vaccine policy
Meningococcal vaccine policy by institution type

Meningococcal Vaccine REQUIRED
n=186

- 36% Public
- 62% Private

Meningococcal Vaccine RECOMMENDED
n=147

- 54% Public
- 39% Private
Meningococcal vaccine policy by institution size

Meningococcal Vaccine REQUIRED
n=186

- <5,000 students: 48%
- 5,000-19,999 students: 38%
- >20,000 students: 14%

Meningococcal Vaccine RECOMMENDED
n=147

- <5,000 students: 37%
- 5,000-19,999 students: 35%
- >20,000 students: 26%
- Unknown: 1%
Meningococcal vaccine policy by student characteristic

Meningococcal Vaccine REQUIRED
n=186

- 24% All students
- 40% Students residing on campus
- 13% 1st yr students
- 4% 1st yr students residing on campus
- 14% Incoming students <22 years
- 5% Unknown

Meningococcal Vaccine RECOMMENDED
n=147

- 46% All students
- 27% Students residing on campus
- 11% 1st yr students
- 10% 1st yr students residing on campus
- 2% Incoming students <22 years
- 5% Unknown
Policy impact of serogroup B meningococcal cases

25 of 352 schools responded they had a case of serogroup B meningococcal disease within the last 10 years:

None required MenB vaccine

13 (52%) recommended MenB vaccine
Policy impact of serogroup B meningococcal outbreaks

77 of 352 schools responded there was an outbreak at that institution or ‘nearby’ institution within the last 10 years:

1 (1%) required MenB vaccine

43 (56%) recommended MenB vaccine
College Meningococcal Vaccine Policy Survey Results

- Vaccine policy: Required or Recommended
- Policy by demographic and other factors
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- Outbreak preparation
- Provider knowledge of vaccine policy
Immunization Compliance

Among 186 schools requiring meningococcal vaccination:

180 (97%) required medical records to document

Prevent unvaccinated students from:

- Class registration in the current semester 34 (18%)
- Class registration in the following semester 131 (70%)
- Participating in sports 37 (20%)
- Living on campus 48 (26%)
Funding for Immunization Compliance

Among 186 schools requiring meningococcal vaccination:

137 (74%) identified sources of funding for administrative time to ensure compliance with immunization requirements
College Meningococcal Vaccine Policy Survey Results

- Vaccine policy: Required or Recommended
- Policy by demographic and other factors
- School measures for immunization compliance
- Outbreak preparation
- Provider knowledge of vaccine policy
Meningitis strain from Princeton University outbreak kills Drexel student

UCSB Student Loses Feet to Meningitis in Campus Outbreak
Four students contracted the bacterial infection within a three-week period last month

Meningitis B strain killed SDSU student

New worries about Meningitis B after Georgetown student dies

Princeton University cancels overnight student orientation after meningitis outbreak
Outbreak Preparedness Plan

- 237 (67%) schools had infectious disease outbreak plan in place
- 71 (20%) had a plan under development
Components of Outbreak Preparedness Plan

- 98% plan to collaborate with local or state health department
- 71% plan for a single case of meningococcal disease
- 58% plan for meningococcal disease cluster/outbreak
- 42% plan to use MenB vaccine during an outbreak
General Knowledge of Category B Recommendations

Physician/Medical Director

Clinical Medical Staff

Clinic Administrator

Not presented: 47 responses from “Other” or “Unknown” responders
Knowledge of Category B Recommendation for MenB vaccine

Physician/Medical Director

Clinical Medical Staff

Clinic Administrator

Correct  Incorrect  Don't know

Correct  Incorrect  Don't know

Correct  Incorrect  Don't know
Category B Recommendations

General

Physician/Medical Director

Clinical Medical Staff

Clinic Administrator

MenB

Physician/Medical Director

Clinical Medical Staff

Clinic Administrator
Conclusions

95% of colleges have a policy regarding meningococcal vaccination

53% of colleges require some form of meningococcal vaccine

Substantial diversity regarding targeted student population or vaccine
Conclusions

Recent meningococcal disease cases or outbreaks did not appear to influence vaccine policy.

Almost 90% of schools had an outbreak preparedness plan in place or under development.
Conclusions

Many college health professionals understand Category B recommendations generally.

Knowledge appears to decrease with the implementation of recommendation to MenB vaccines.

Education of all college health providers is needed regarding vaccine policies.
Acknowledgements

- ACHA
  - Mary Hoban
  - Victor Leino
  - Susan Even

- CDC
  - Monica Patton
  - Susan Hariri
  - Jessica MacNeil
For more information, contact CDC
1-800-CDC-INFO (232-4636)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.