



## MIAP MA Immunization Update Part 2

October 27, 2016  
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Medical Director, Immunization Program  
MA Department of Public Health



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### PRESENTER DISCLOSURE INFORMATION

- I, Susan Lett, have been asked to disclose any significant relationships with commercial entities that are either providing financial support for this program or whose products or services are mentioned during my presentations. I have no relationships to disclose.
- I may discuss the use of vaccines in a manner not approved by the U.S. Food and Drug Administration
  - But in accordance with ACIP recommendations

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### Outline

- Outbreaks
- Immunization Coverage
- How We Can Succeed



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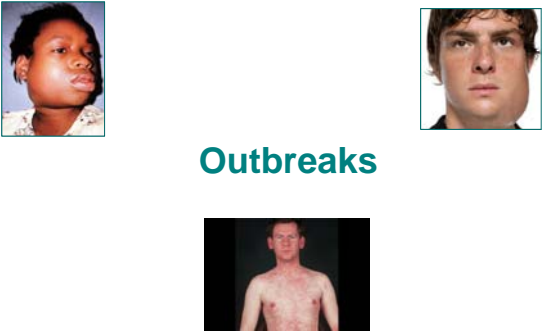
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## Outbreaks

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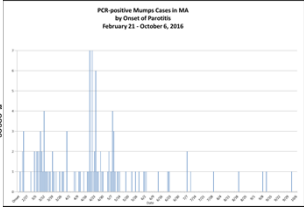
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## Mumps Outbreak 2016

- 112 confirmed in MA (101 probable) as of 10/6/2016
- 67 confirmed cases at Harvard (includes two summer students)
  - Cases confirmed at seven other Boston-area universities
  - Probable cases at two other universities
  - 53 M/59 F (Age range 15-69 – Median age 21)
  - Majority with two MMR doses
- ~600 suspect cases investigated since 2/15/2016



112 Confirmed Cases
96 (86%) colleges/universities
16 (14%) community

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## Measles 2016

### Spring

- Visitor from Europe
- Vaccination history unknown
- Several days of malaise
- Developed fever, rash and cough
- Exposures at several large public locations
- And at one large hospital

### Fall

- Recent travel to India
- Two doses by age 13 months
- Several days of malaise
- Developed fever, rash and cough
- Travel out of state while infectious
- Exposures limited in MA
- Some exclusions necessary



**Health officials warn of potential exposure in Boston**

By [Name], 10/27/16 at 10:00 AM

10/27/16 10:00 AM EDT

MSD/By [Name] The Massachusetts Department of Health and the Boston Public Health Commission have confirmed the first case of measles in Massachusetts this year.

The case involves an individual with an unknown vaccination history who recently visited Massachusetts from Europe.

According to health officials, there have been potential exposures

The Commonwealth of Massachusetts  
Division of Health and Human Services  
Department of Public Health  
Division of Epidemiology and Prevention

**Clinical Alert**  
May 12, 2016

**Measles confirmed in Boston, Massachusetts – Multiple exposures in public settings like**

The Massachusetts Department of Public Health (MDPH) and the Boston Public Health Commission (BPHC) has confirmed the first case of measles in the state since 2003. The case involves a young child who recently returned from Europe. The child had no known vaccination history and was exposed to measles in public settings like schools and other large public locations. The child was exposed to measles in public settings like schools and other large public locations. The child was exposed to measles in public settings like schools and other large public locations.

To control measles spread among children in the greater Boston area, MDPH is issuing a clinical alert. See below for specifics. Evaluate the average incubation with a range of 7-21 days, provide to the new onset of any case.

Providers should consider measles in patients who:

- are at least 1 year of age, symptomatic, and not vaccinated during this period
- present with febrile rash illness and clinically consistent measles symptoms
- are exposed to someone with measles
- recently traveled internationally or were exposed to someone who recently returned from international travel
- have had been vaccinated against measles

**Measles Testing – Specimen Collection**

**Attachment A**

**Report suspect cases immediately.**

Specimens to be collected: serum (preferred), whole blood (acceptable if serum is not available), or urine (acceptable if serum is not available). Specimens to be collected: serum (preferred), whole blood (acceptable if serum is not available), or urine (acceptable if serum is not available).

When to test for measles:

- A clinical diagnosis of measles must be confirmed by laboratory testing. Contact with appropriate personnel with measles:
- Fever of 38.3°C or higher
- Rash (maculopapular, erythematous)
- A generalized, non-itching, non-vesicular rash.

Patients with these signs and symptoms to whom measles was reported should be given appropriate public health notification. Consider testing for measles. The appropriate personnel to be notified are: local health departments, state health departments, and the CDC. Notify the appropriate personnel in your jurisdiction before the patient. Read and follow the report protocol as soon as possible. Report an exposure if possible. Cases have developed the illness in high-risk populations. Do not use the report form for cases that have been fully vaccinated.

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## Immunization Coverage

### Massachusetts

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### Estimated Vaccination Coverage with Individual Vaccines Among Children 19-35 Months of Age in MA, NIS 2014-2015

	2014 Coverage	2015 Coverage	Percent difference	Rank 2015
4+ DTP	90%	87%	-0.6	13
3+ Polio	94%	97%	+3.2	5
1+ MMR	95%	92%	-2.9	30
3+ Hib	96%	95%	-0.9	13
Hib-FS	87%	87%	-0.2	8
3+ Hep B	95%	96%	+1.3	4
HepB birth dose	75%	78%	+3.6	13
1+ Var	94%	92%	-1.6	28
3+ PCV	96%	97%	+1.0	4
4+ PCV	89%	87%	-1.4	10
2+ HepA	64%	66%	+1.4	8
2+ Rotavirus	80%	84%	+3.2	2

NIS Data, CDC  
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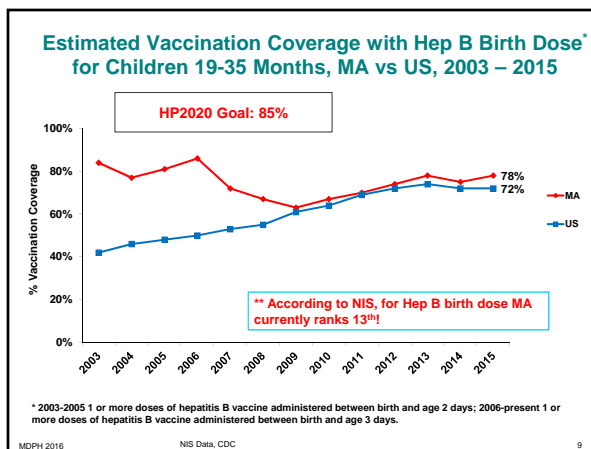
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### MA Flu Vaccination Rates



	MA 2014-15	MA 2015-16	US 2015-16
Everyone 6 mos+	55%	50%	46%
Children 6 mos – 17 yrs	76%	#2 75%	59%
o Children 6 mos – 4 yrs	81%	#3 85%	70%
o Children 5 – 12 yrs	78%	#2 79%	62%
o Adolescents 13 – 17 yrs	71%	63%	47%
Adults 18 +	50%	44%*	42%
o Adults 18 – 64 y/o	45%	40%	36%
o Adults HR 18 – 64 y/o	53%	48%	46%
o Adults 50 – 64 y/o	53%	46%	44%
o Adults 65+	67%	60%*	63%

2015-16 National Immunization Survey (NIS) and Behavioral Risk Factor Surveillance System (BRFSS)  
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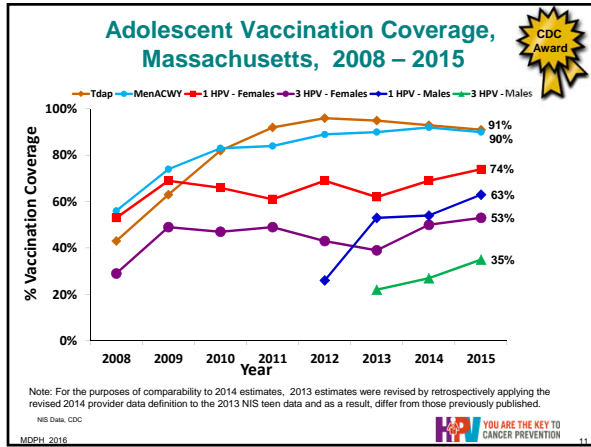
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### Estimated Vaccination Coverage with HPV Among Adolescents 13-17 Years of Age, MA, NIS 2014 vs 2015

	Females		Males	
	2014	2015	2014	2015
1+ HPV	69%	74% (+5%)	54%	63% (+9%)
2+ HPV	63%	63% (+0%)	46%	51% (+5%)
3+ HPV	50%	53% (+3%)	27%	35% (+8%)
HPV 3 dose series completion*	74%	81% (+7%)	64%	64% (+0%)

\*Percent who received 3 doses among those had at least 1 dose of HPV and at least 24 weeks between first dose and interview date.

NIS Data, CDC  
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## How We Can Succeed





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## MDPH Immunization Recommendations

- **Hepatitis B Vaccine**
  - Give the 1<sup>st</sup> dose at birth to all infants
  - Join the 12 MA hospitals who are already on IAC's Hepatitis B Birth Dose Honor Roll for achieving 90% coverage
- **HPV Vaccine**
  - Give a strong routine recommendation for this anti-cancer vaccine for boys and girls to be given with Tdap and MCV at 11-12 years
  - Utilize other evidence-based strategies help improve our rates
- **MMR Vaccine**
  - Make sure all children receive age-appropriate immunization (1 or 2 doses)
  - If travelling, make sure those 12 months and older have 2 doses and those 6 to 11 months of age receive 1 dose of MMR
- **Hepatitis A Vaccine**
  - Give the first dose beginning at 12 months of age and the 2<sup>nd</sup> dose 6-18 months after the first
  - Catch-up all unvaccinated children 2-18 years



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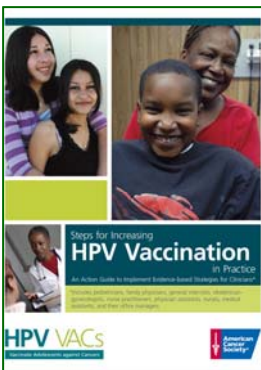
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"HPV Vaccine: Same Way Same Day"

## HPV Efforts in Massachusetts



<https://www.mysocietysource.org/sites/HPV/ResourcesandEducation/Lists/Clearinghouse/Attachments/217/Steps%20for%20Increasing%20HPV%20Vaccination%20in%20Practice.pdf>

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## HPV Immunization Recommendations

**Offer HPV Vaccine the Same Way, Same Day**

- A strong routine recommendation from a child's provider is the most significant factor in parents' decision to vaccinate their children with HPV vaccine
 

**"Now that your child is 11, they are due for three vaccines that are really important for all kids their age. They will help protect against meningitis, HPV cancers and pertussis. We'll give these at the end of the visit today."**
- Talk about HPV vaccination as **cancer prevention!**
  - Cancer prevention is important to parents so remind them that certain HPV types can cause not only cervical cancer, but also anal, penile, vaginal, vulvar, and oropharyngeal cancers.
- Starting early at ages **9 or 10** will help get all doses completed by the 13<sup>th</sup> birthday

MDPH HPV Fact Sheet: <http://mcaap.org/immunization-hpv/>
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## Other Evidence-Based Strategies to Improve HPV Vaccine Rates

- Standing Orders**
- Immunization Champion**
- Assess and vaccinate at every visit**
  - Well child, sick visits, sports physicals, nurse only visits
- Use reminder/recall systems**
  - Provider level (EHER prompts, stickies, checklists)
  - Parent/patient level (postcards, calls, texts)
- Utilizing immunization information systems**
  - Immunization Registries
  - Office-based systems
- Assessment and feedback**
  - High quality AFIX focusing on HPV coverage
  - In 2016, MA awarded CDC funding for special enhanced adolescent AFIX grant

**Overdue:  
HPV-2  
Tdap**

<http://www.thecommunityguide.org/about/methods.html>
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## HPV World in Massachusetts

4<sup>th</sup> Annual HPV Summit at Dana-Farber Cancer Institute  
 Friday, November 4<sup>th</sup> 7:30-2:25  
 Register on line: [www.dana-farber.org/hpvs Summit](http://www.dana-farber.org/hpvs Summit)

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## New HPV Resources

- CDC HPV Website
  - [www.cdc.gov/hpv](http://www.cdc.gov/hpv)
- HPV Vaccine is Safe (Gardasil) – CDC
  - <https://www.cdc.gov/vaccinesafety/pdf/data-summary-hpv-gardasil-vaccine-is-safe.pdf>
- Addressing Parents HPV Questions - CDC
  - <http://www.cdc.gov/vaccines/who/teens/for-hcp-tipsheet-hpv.pdf>
- HPV VACS Just the FACTS – ACS
  - <https://www.mysocietysource.org/sites/HPV/ResourcesandEducation/Lists/Clearinghouse/Attachments/320/HPV%20Vaccine%20-%20Just%20the%20Facts%203.9.2016.pdf>
- MDPH HPV Information Sheet
  - <http://mcaap.org/immunization-hpv/>

Best HPV Resources Available at MCAAP HPV Website: <http://mcaap.org/immunization-hpv>




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## Standing Orders

### Take a Stand Training

Immunization Action Coalition (IAC)  
Boston, MA June 6 2016  
[www.standingorders.com](http://www.standingorders.com)



MDPH 2016 <http://www.immunize.org/cataldip3067.pdf>

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## How Standing Orders Improve Immunization Rates

- Empowers nurses and other professionals to give immunizations, rather than relying on an individual clinician's order
- Integrates immunization assessment and administration into your practice or clinic flow
- **REDUCES MISSED OPPORTUNITIES**
- Helps you meet or exceed your goals for vaccination rates in your practice

Strong evidence from over 34 studies with a median increase in immunization coverage from **24-27** percentage points.

The Community Guide: What works to promote health

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### Standing Orders in MA

- Licensed registered and practical nurses and can administer vaccines using standing orders (BORN Advisory Ruling No. 9804, updated 9-9-15)
  - <http://www.mass.gov/eohhs/gov/departments/dph/programs/hca/dhpl/nursing/nursing-practice/advisory-rulings/administration-of-immunizing-agents.html>
- Pharmacists (and interns under supervision of a pharmacist) can administer vaccines to adults using standing orders written by a physician (105 CMR 700.004(B)(6 )(c)1)
  - <http://www.mass.gov/eohhs/docs/dph/quality/boards/pharmacy/alerts/policy-2015-01.pdf>

IAC model standing orders available at:  
<http://www.immunize.org/standing-orders/>  
 MDPH model standing orders available at:  
[www.mass.gov/dph/imm](http://www.mass.gov/dph/imm)

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### ACOG Increasing Adult Immunization Rates through Obstetrician-Gynecologist Partnerships

- 4 year demonstration grant; final year focuses on disseminating best practices of what worked well with ob-gyns
- Aim is to increase immunization rates in pregnant and non-pregnant women, targeting five immunizations: influenza, Tdap, hepatitis B, pneumococcal, and zoster
- Assist participating ob-gyns to improve office workflow and make immunizations more routine part of care by promoting evidence-based strategies
- Practices: 20 ob-gyn champions in Massachusetts and LA County, California
- ACOG partnership with MA DPH and CA DPH for resources, trainings, and IIS support
- ACOG partnership with ACOG District and Section leadership for outreach and project guidance
- Resources for providers and patients are available at [www.immunizationforwomen.org](http://www.immunizationforwomen.org)



Funded through grant #1H23IP000981

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### MA Immunization Partnerships



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**MDPH Immunization Program**  
**Contact Information**



**Immunization Program Main Number**  
 For questions about immunization recommendations, disease reporting, etc.  
 • Phone: 617-983-6800  
 • Fax: 617-983-6840  
 • Website: [www.mass.gov/dph/imm](http://www.mass.gov/dph/imm)

**MIIS Help Desk**  
 • Phone: 617-983-4335  
 • Fax: 617-983-4301  
 • Email: [miishelpdesk@state.ma.us](mailto:miishelpdesk@state.ma.us)  
 • Websites: [www.contactmiis.info](http://www.contactmiis.info) | [www.mass.gov/dph/miis](http://www.mass.gov/dph/miis)

**MDPH Vaccine Unit**  
 • Phone: 617-983-6828  
 • Fax: 617-983-6924  
 • Email: [dph-vaccine-management@state.ma.us](mailto:dph-vaccine-management@state.ma.us)  
 • Website: [www.mass.gov/dph/imm](http://www.mass.gov/dph/imm) (click on Vaccine Management)

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**EXTRAS**

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**Vaccine-Preventable Diseases in Massachusetts  
 Reported, Confirmed Cases, 2006 - 2015 to Date\***

Disease	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Measles	19	1	2	2	3	24	0	1	8	1**
Mumps	7	5	7	14	9	4	2	18	5	4
Rubella	2	1	1	1	0	1	1	0	0	0
CRS	0	0	0	0	0	0	0	0	0	0
Pertussis	1199	1198	768	379	296	273	652	347	305	111
Hib < 5	0	3	2	1	1	0	2	3	1	1
Tetanus	0	0	0	0	0	0	0	0	0	0
Diphtheria	0	0	0	0	0	0	0	0	0	0
Polio	0	0	0	0	0	0	0	0	0	0
Pneumococcal Disease < 5	85	90	82	81	69	38	45	23	27	16
Varicella***	2192	2177	1767	1780	1775	1674	1151	1055	818	225

\*2015 data as of Aug. 29 2015 and are preliminary. \*\*International Visitor (non-MA resident). \*\*\*Includes confirmed, probable and suspect cases 2006-2015.  
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## Invasive Meningococcal Disease



**BOSTON PUBLIC HEALTH COMMISSION**  
**Communicable Disease Control Division**  
 1010 Massachusetts Avenue · Boston, MA 02118  
 Phone: (617) 534-5611 · Fax: (617) 534-5905

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**UPDATE: Meningococcal Disease in the Boston Adult Homeless Community**

**Summary:** The Boston Public Health Commission (BPHC) has received reports of five confirmed cases of meningococcal disease in the Boston adult homeless community since the end of January. Four cases presented with meningococemia; one presented with meningitis. Two cases developed fulminant disease and died. Close contacts of each case have been chemoprophylaxed. Serogrouping has been completed on four isolates; information on the fifth isolate is pending. Two isolates were determined to be serogroup C, and additional testing showed that they were genetically similar. Two isolates were serogroup Y. Given the number of cases, and the temporal and geographic clustering of cases in a distinct population cohort, BPHC continues to recommend vaccination against meningococcal disease for those in the Boston adult homeless community. Since February 17, 2016, the Boston Health Care for the Homeless Program (BHCHP) has vaccinated over 2,400 individuals at risk. Menactra (which covers serogroups A, C, W-135, and Y) is being used for vaccination.

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## Invasive Meningococcal Disease

- Five cases in two months starting in late January among homeless people with ties to Boston – very unusual – 4 males/1 female
- Two deaths
- Antibiotic prophylaxis to close contacts : ~280 individuals
- Two serogroup C; three serogroup Y (matching molecular profiles)
- Large vaccination campaigns - over 4,500 received vaccine
- Case-control interviews to determine risk factors

**Vaccine rushed to Boston's homeless after a death**

By Peter J. Freese | SOURCE STAFF | FEBRUARY 24, 2016

Boston health officials are vaccinating hundreds of homeless people against a serious bacterial infection that can kill within hours, after a homeless man died Monday from the disease.

The victim was among three homeless men who recently came down with meningococcal, which occurs when certain bacteria get into the bloodstream. The fatal case appears to be unrelated to the other two, which occurred in late January and involved a different strain of the bacteria, said Dr. Denise De Leo Staines, medical director of the Boston Health Care for

Additional text is following your knowledge consent. Things don't seem to be the same. Change program making school less. School. Things seem to be the same after the health facilities, including. More. Things seem to be the same. Working. MDPH photo credit: Hanyoung

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## New Grant: Increasing HPV Vaccine Coverage by Strengthening Adolescent AFX Activities

- During 2017 and 2018 we will enhance our AFX activities
  - Increase the number
    - 120 in 2017
    - 180 in 2018
  - Provide additional training and resources for MDPH staff conducting AFX and to provide during AFX
  - Conduct physician to physician AFX
  - Utilize immunization report cards
  - Offer CME/CEU credits for participating in AFX



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