



Together We Can Prevent HPV-Related Cancers

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The learner should be able to:

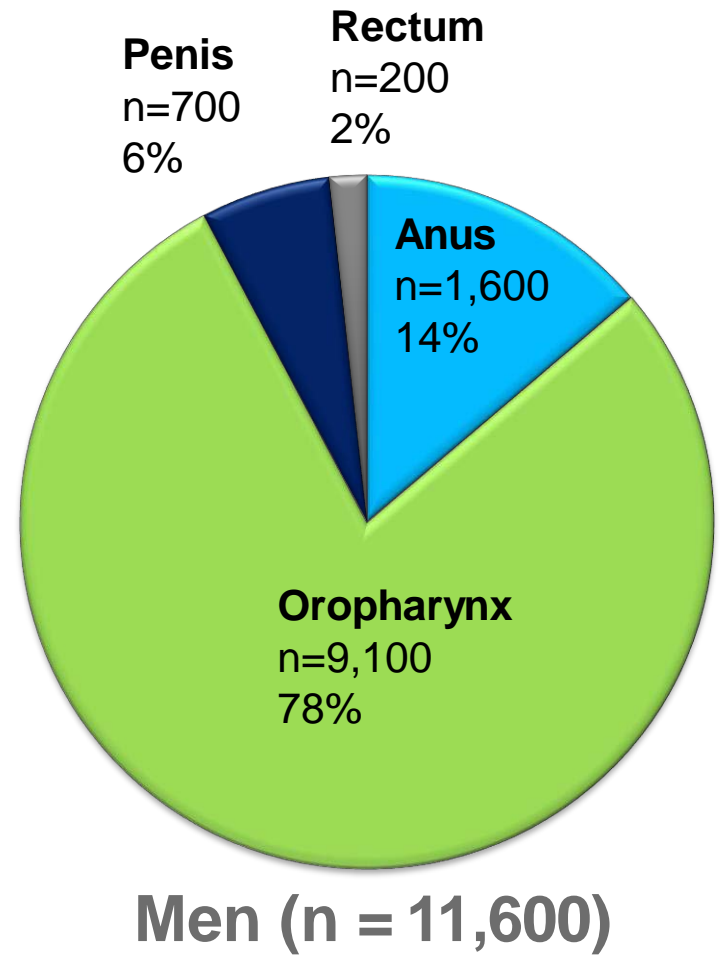
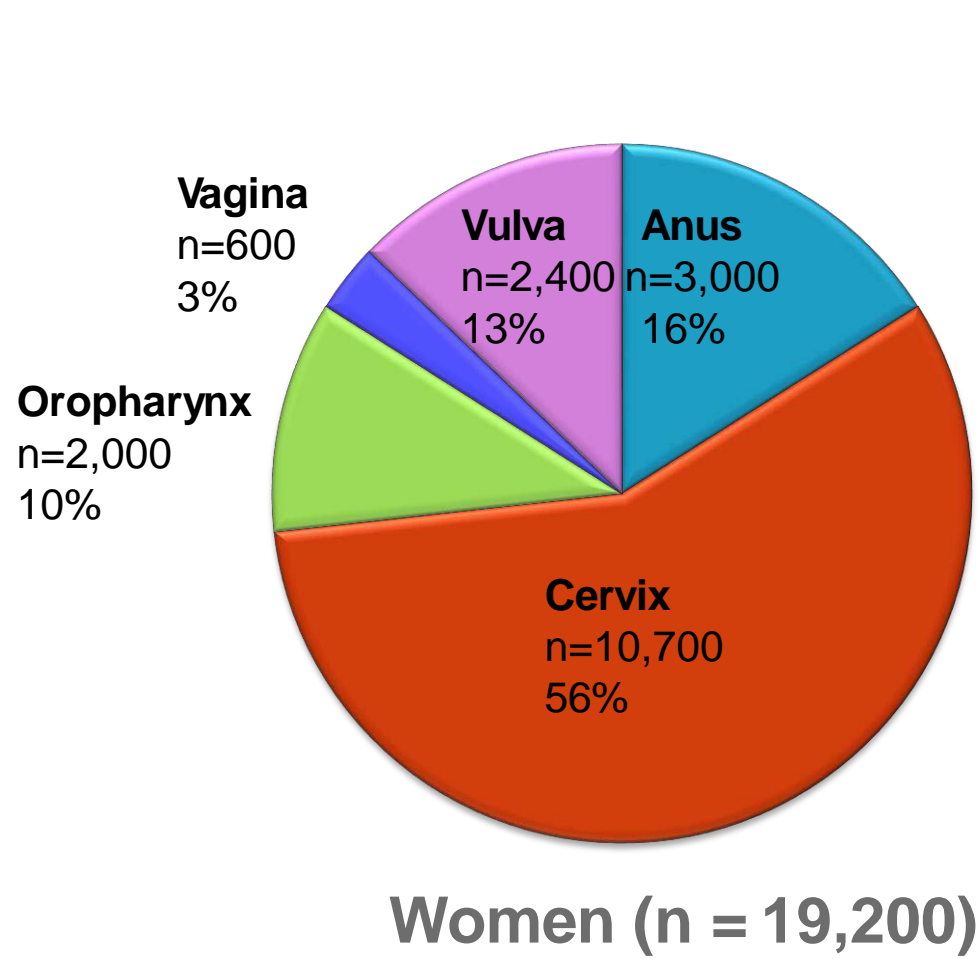
1. Discuss latest trends in HPV disease prevalence and prevention.
2. Employ evidence-based techniques for increasing HPV vaccination rates in your own practice.
3. Apply useful & compelling communication strategies and practical tips to inform parents about HPV.

Every year in the United States over 30,000 people are diagnosed with a cancer caused by HPV.



That's 1 case every 20 minutes.

Average Number of New Cancers Probably Caused by HPV, by Sex, United States, 2008-2012



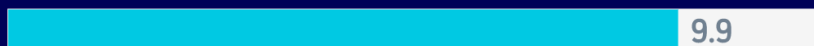
Disparities in Cervical Cancer Incidence and Death Rates

Incidence rates, 2009-2013

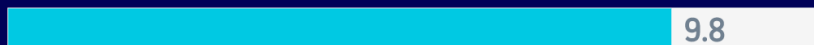
by race and ethnicity, for cervix

Average annual rate per 100,000, age adjusted to the 2000 US standard population.

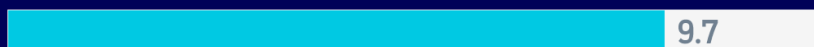
Hispanic



Non-Hispanic black



American Indian and Alaska Native



Non-Hispanic white



Asian and Pacific Islander



Data Sources: North American Association of Central Cancer Registries (NAACCR), 2016

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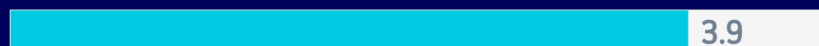
CancerStatisticsCenter.cancer.org

Death rates, 2010-2014

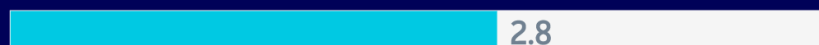
by race and ethnicity, for cervix

Average annual rate per 100,000, age adjusted to the 2000 US standard population.

Non-Hispanic black



American Indian and Alaska Native



Hispanic



Non-Hispanic white



Asian and Pacific Islander



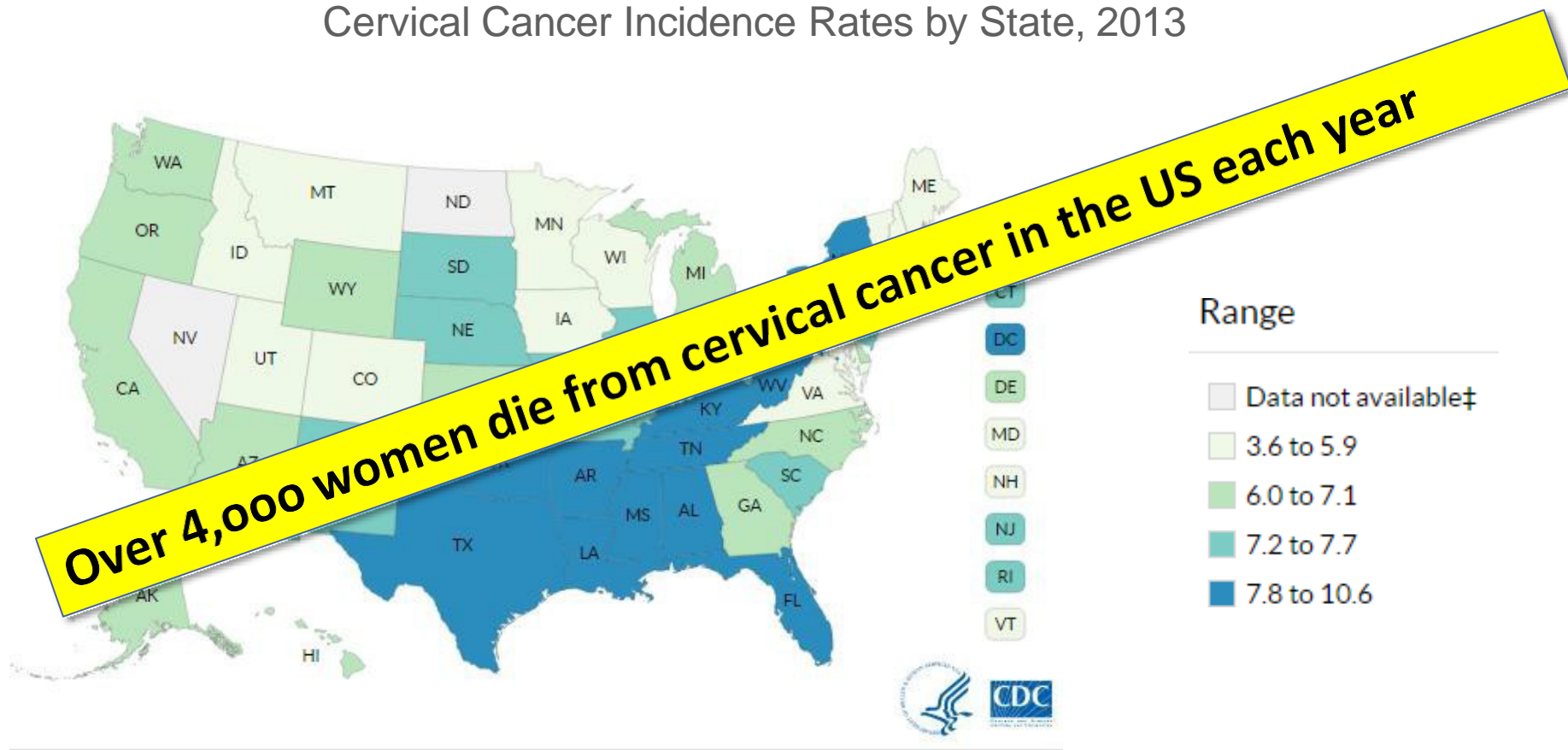
Data Sources: National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention, 2016

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CancerStatisticsCenter.cancer.org

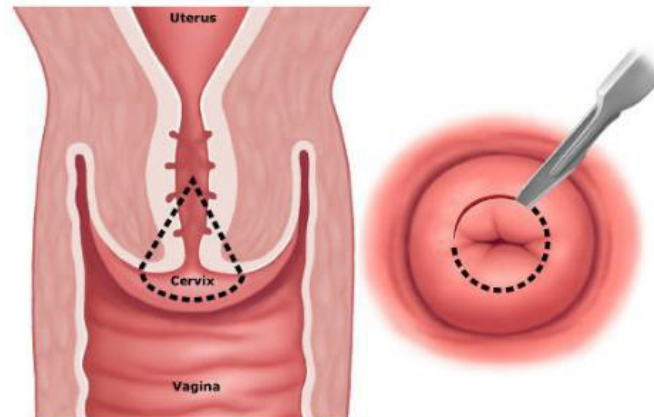
State Variation in Rates of Cervical Cancer

Cervical Cancer Incidence Rates by State, 2013

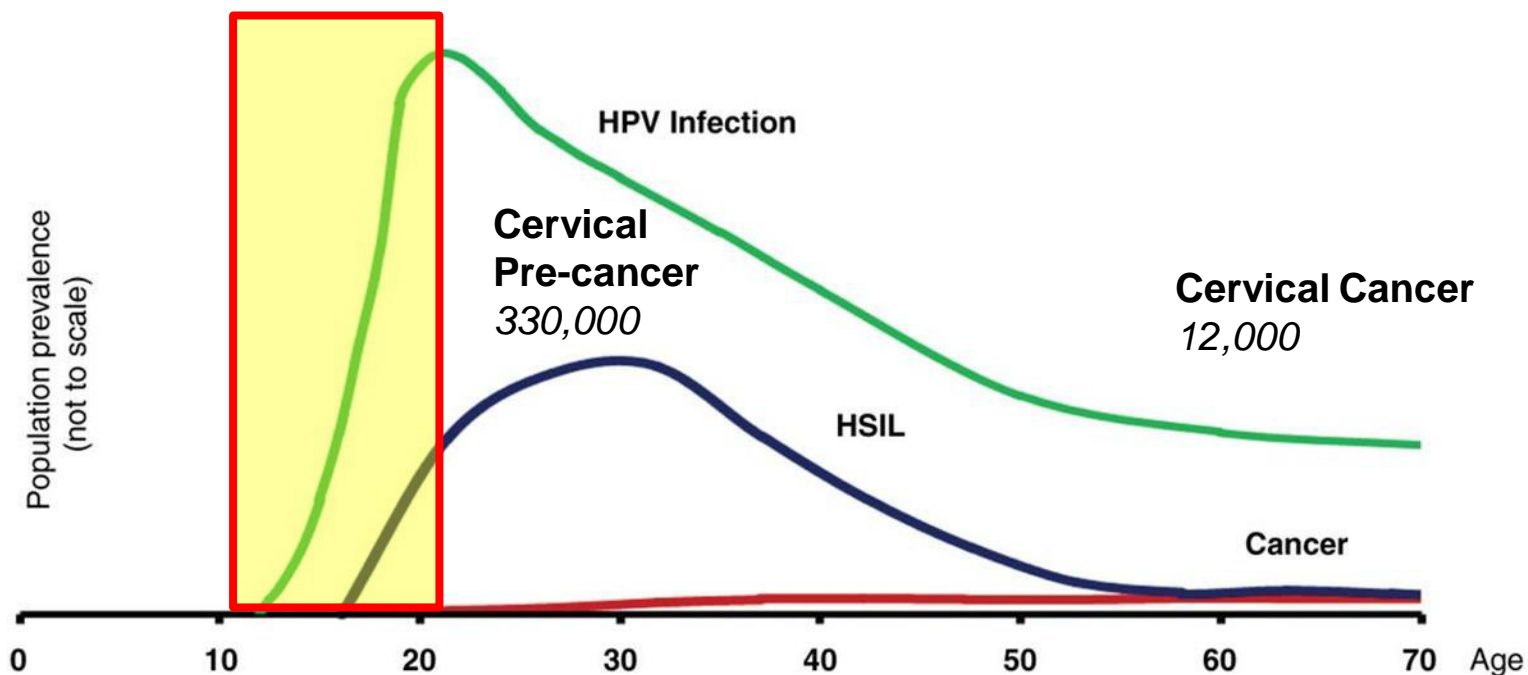


Implications of Pre-Cancerous Lesions

- Ongoing medical follow-up is recommended
- Cervical conization and LEEP (loop electrosurgical excision procedure) are associated with adverse obstetric morbidity
- Subsequent pregnancies are at risk of:
 - Perinatal mortality
 - Preterm delivery
 - Low birthweight
- Financial costs of care

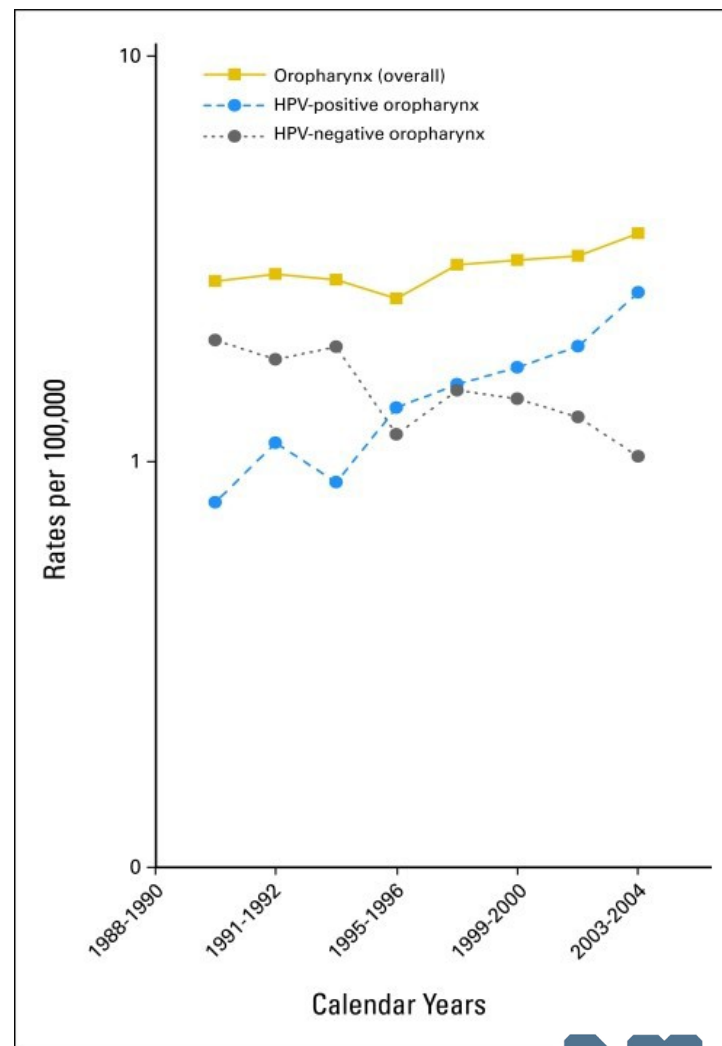


HPV Vaccination Eliminates HPV Infection and the Downstream Consequences

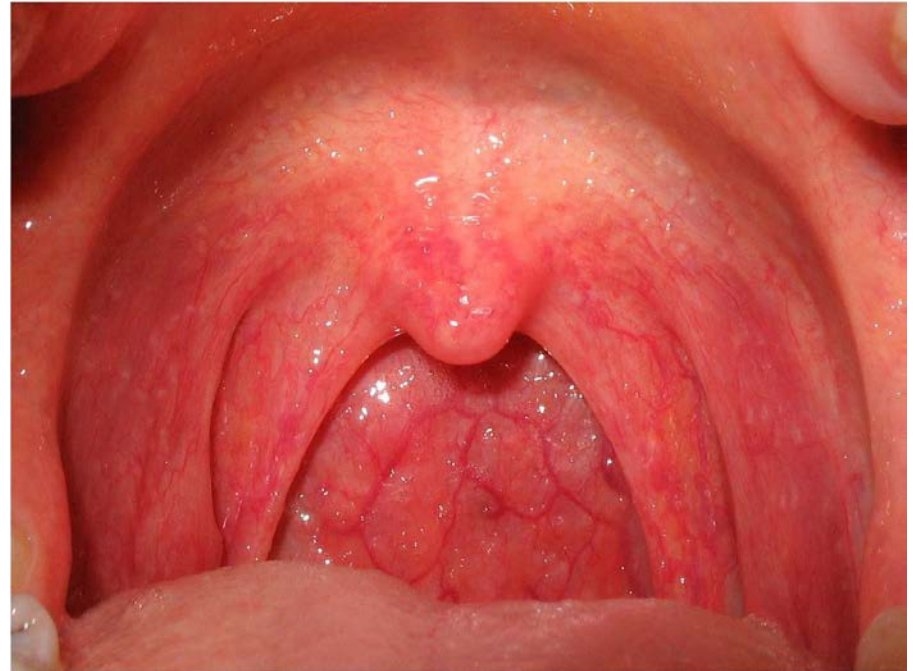
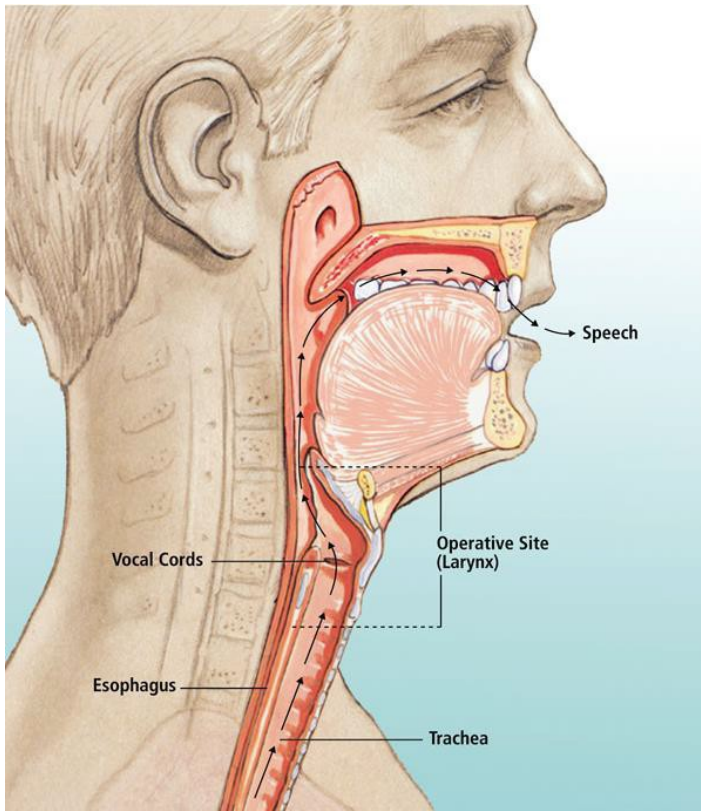


Oropharyngeal Cancers

- More new oropharyngeal cancers than cervical cancers
- HPV negative
 - Smoking and alcohol-related
 - Decreased 50%
- HPV positive
 - Increased by 225%



Anatomy of the Oropharynx



Oropharyngeal Cancers



Side Effects of Non-surgical Therapy

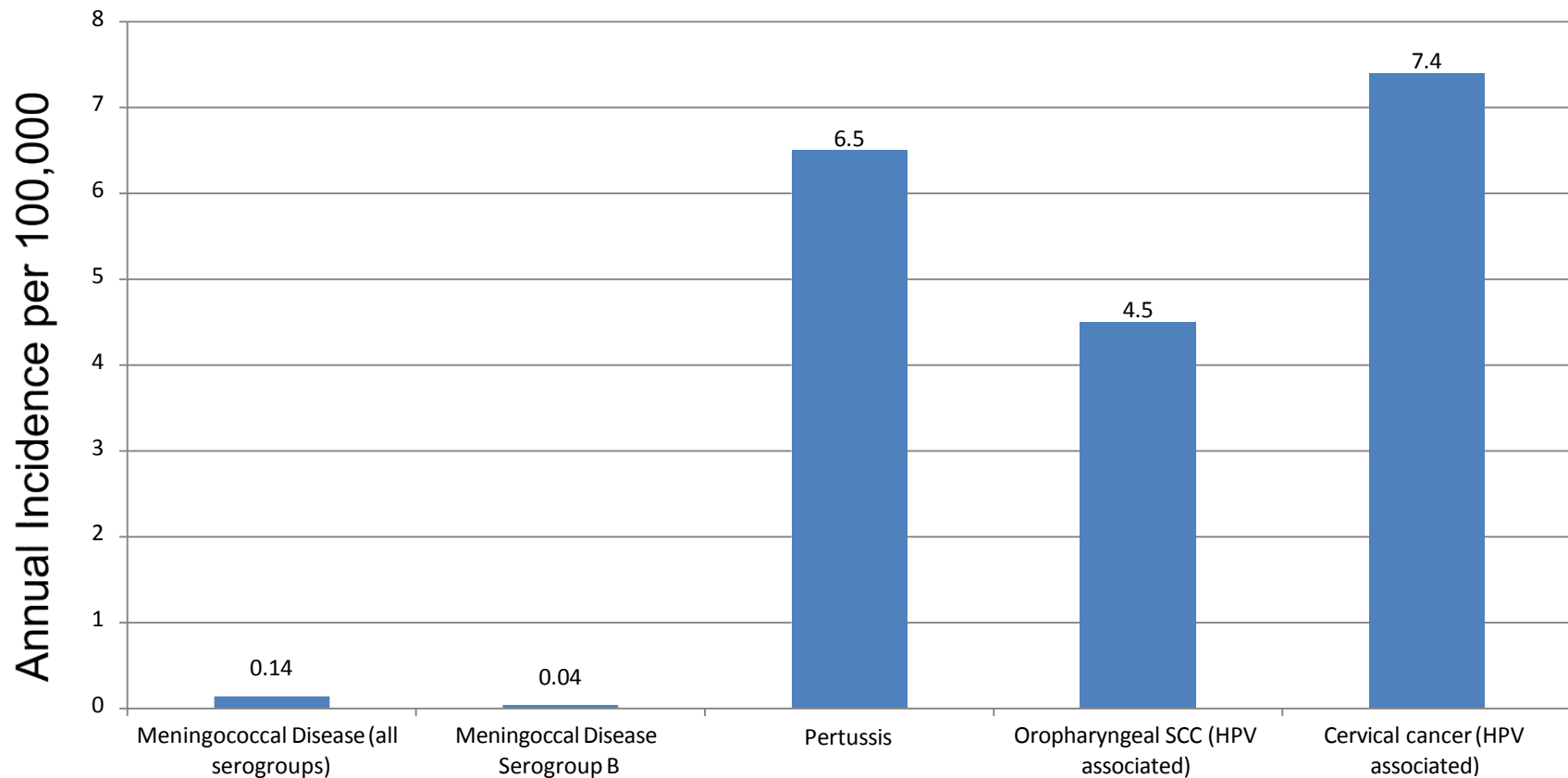
Side Effect	Percent affected
Taste Disturbance	88%
Nausea/Vomiting	36%
Dry Mouth	29-38%
Esophageal Stricture	5%
Require G tube > 1 year	9%



Data Source: Irune, et al, 2014; Kocak-Uzel, et al, 2014; Nutting, et al, 2011; McBride, et al, 2014

Photo Credit: http://www.jpalliativecare.com/viewimage.asp?img=IndianJPalliatCare_2010_16_2_74_68408_f3.jpg

Incidence of Diseases Covered in Adolescent Vaccine Series

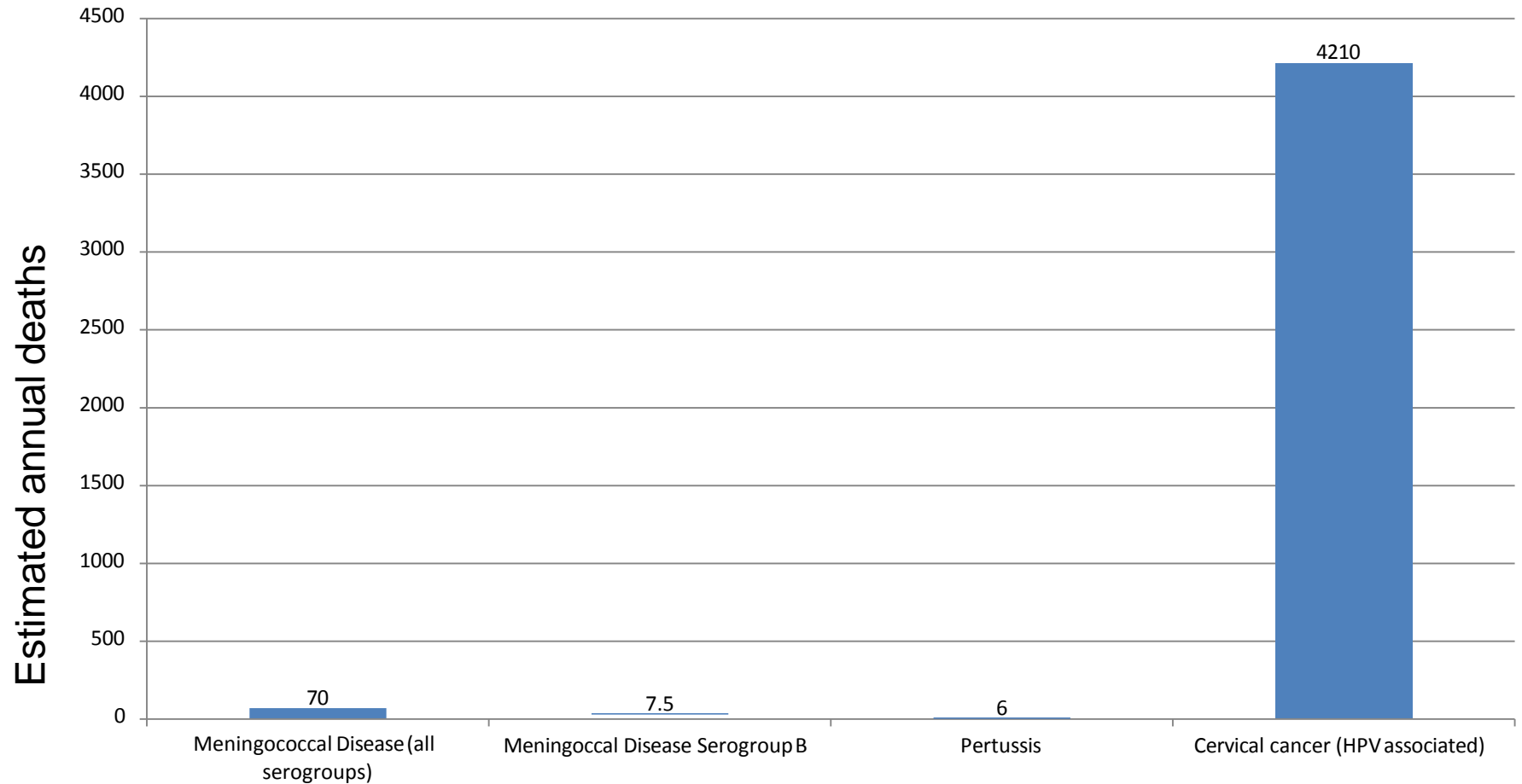


Meningococcal Data Source: 2014 CDC ABCs

Pertussis Data Source: 2015 CDC ABCs

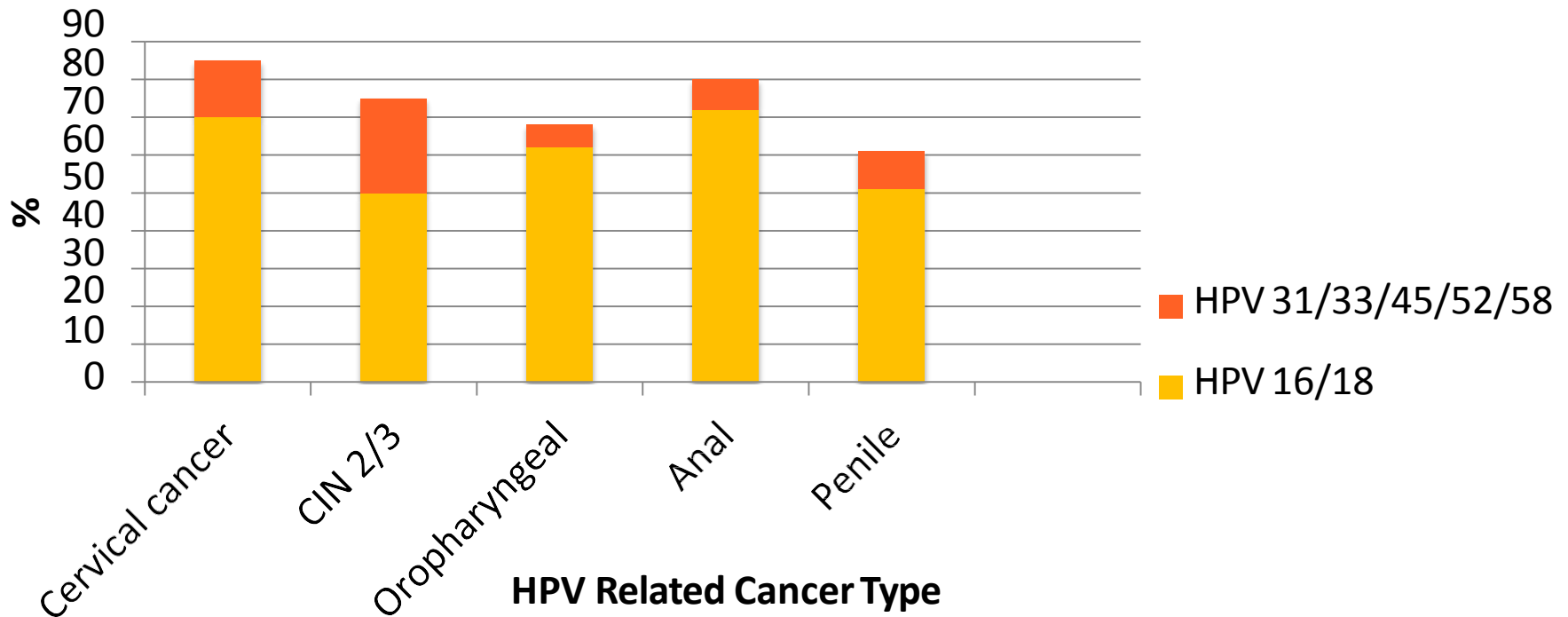
Cervical & Oropharyngeal Data Source: 2008-2012 SEER

Deaths from Diseases Covered in Adolescent Vaccine Series



Meningococcal Data Source: 2014 CDC ABCs
Pertussis Data Source: 2015 CDC ABCs
Cervical Data Source: 2016 American Cancer Society

Percentage of HPV types found in common HPV related cancers, US Data



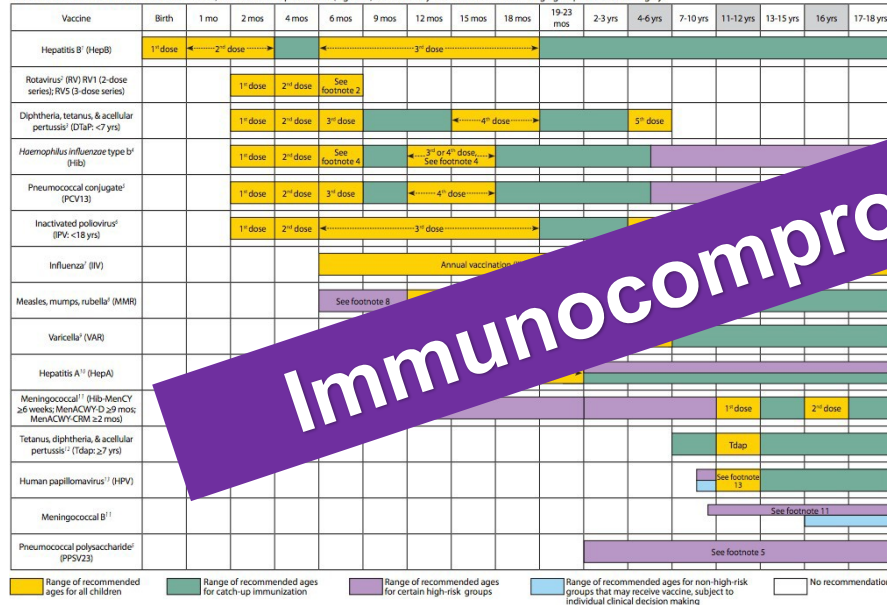
**9-valent vaccine is estimated to prevent:
85% of cervical, 70% of oropharyngeal,
80% of anal, and 60% of penile cancers**

2017 Immunization Schedule

Figure 1. Recommended Immunization Schedule for Children and Adolescents Aged 18 Years or Younger—United States, 2017.

(FOR THOSE WHO FALL BEHIND OR START LATE, SEE THE CATCH-UP SCHEDULE (FIGURE 2)).

These recommendations must be read with the footnotes that follow. For those who fall behind or start late, provide catch-up vaccination at the earliest opportunity as indicated by the green bars in Figure 1. To determine minimum intervals between doses, see the catch-up schedule (Figure 2). School entry and adolescent vaccine age groups are shaded in gray.



NOTE: The above recommendations must be read along with the footnotes of this schedule.

Age at 1st dose of vaccine

Immunocompromised: 3 doses

- Before 15th Bday: 2 doses
- On or after 15th Bday: 3 doses
- Immunocompromised: 3 doses

What Forms of “Immunocompromise” Necessitate a 3-dose HPV Vaccine Series?

Needs 3 doses irrespective of age:
Primary or secondary conditions that might reduce cell-mediated or humoral immunity

Examples:

- B lymphocyte Ab deficiencies
- T lymphocyte complete or partial defects
- HIV infections
- Malignant neoplasm
- Transplantation
- Autoimmune disease
- Immunosuppressive therapy

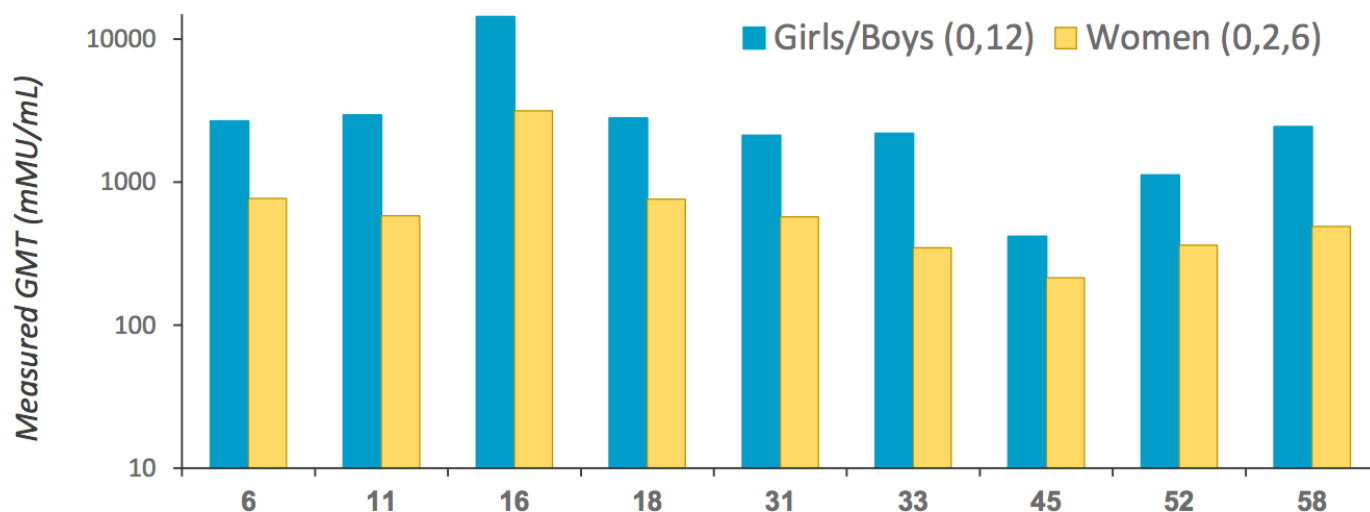
Can use 2-dose series for those initiating before 15th birthday:

- Asthma
- Asplenia
- Diabetes mellitus
- Sickle cell disease
- Chronic granulomatous disease
- Chronic disease of liver, lung, kidneys
- Heart disease
- CNS barrier defects (eg, cochlear implant)
- Complement deficiency, persistent complement component deficiency

2 –Dose Immunogenicity Trial

9vHPV 2-Dose Immunogenicity Trial

Non-inferior GMT at 1 month post-last dose in
2-dose girls/boys vs. 3-dose women

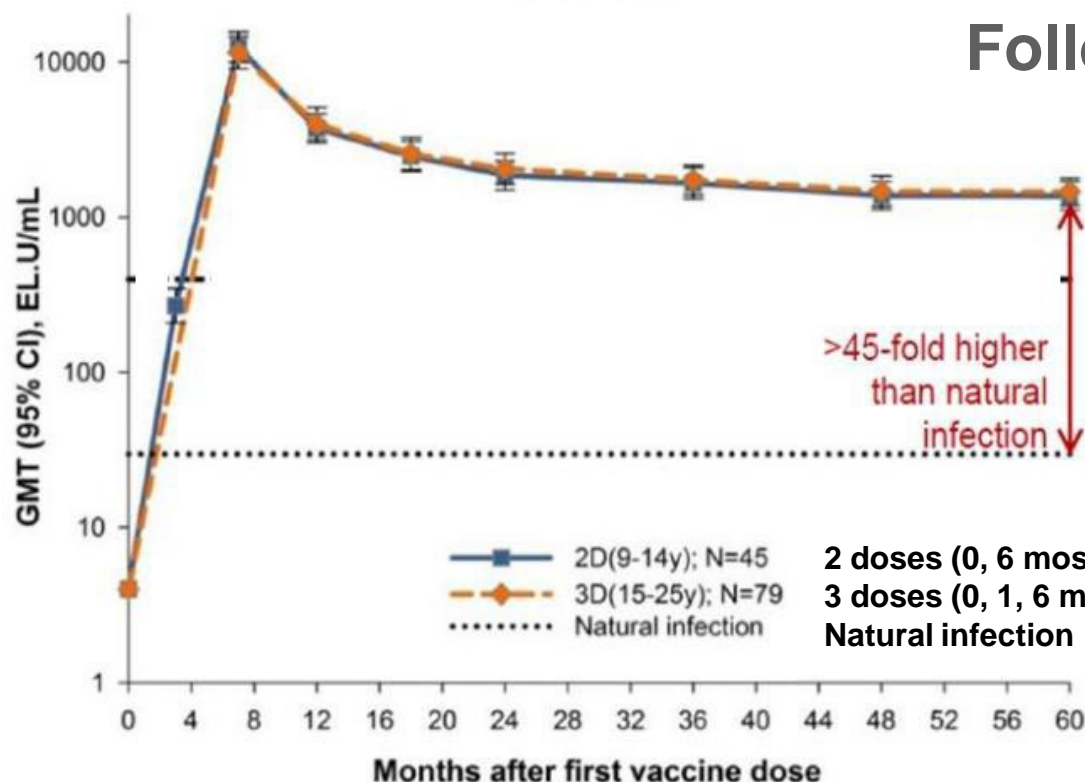


Fold difference (girls & boys /women)	3.47	5.07	4.54	3.69	3.70	6.31	1.96	3.08	4.98
95% CI	(2.93, 4.11)	(4.32, 5.94)	(3.84, 5.37)	(3.06, 4.45)	(3.08, 4.45)	(5.36, 7.43)	(1.61, 2.37)	(2.64, 3.61)	(4.23, 5.86)

Does Immunity Last?

HPV-16

Follow-up through month 60



RESULTS: Antibody kinetics

- Similar in 2 groups
- Steady
- > Natural infection

2 doses (0, 6 mos) (ages 9-14 y)
3 doses (0, 1, 6 mos) (ages 15-25 y)
Natural infection

Evidence of lasting immunity

➡ For 2-or 3-dose series?

- ➡ No evidence of waning protection after a **3-dose** series
- ➡ So far, antibody persistence after a **2-dose** series appears similar to 3-dose series

➡ How long?

- ➡ Data available through **~10 years** for 2vHPV and 4vHPV
- ➡ Longer follow-up, through **14 years**, ongoing in some studies

9vHPV Vaccine Safety

- ➡ 7 pre-licensure studies including 15,000 males and females
- ➡ Generally well-tolerated
 - ➡ Adverse event profile similar to that of 4vHPV across age, gender, race, and ethnicity
 - ➡ More injection-site reactions expected among those who receive 9vHPV

HPV Vaccine Long-Term Safety Data

No increased risk of:

- 2011- Allergic reactions, anaphylaxis, GBS, stroke, bloodclots, appendicitis, or seizures (than unvaccinated or who received other vaccines)
- 2013 –Blood clots or AEs related to the immune & CNS (almost 1 million girls)
- 2014 – Venous thromboembolism or blood clots (>1 million women)
- 2012 & 2014 – Autoimmune disorders (2 studies)
- 2015 – Multiple sclerosis or other demyelinating diseases
- 2016- Over 60 conditions
- 2012 - Vaccine may be associated with skin infections where the shot is given during the two weeks after vaccination and fainting on the day the shot is received

Vaccine Efficacy from Clinical Trials

Vaccine	Disease	Efficacy, Females	Efficacy, Males
HPV4	High-grade abnormalities in cervix	100%	N/A
	High-grade abnormalities in vagina	100%	N/A
	High-grade abnormalities in vulva	100%	N/A
	High-grade abnormalities in anus	N/A	75%*
	Genital Warts	99%	89%
HPV2	High-grade abnormalities in cervix	93%	N/A

* Only among men-who-have-sex-with-men

Efficacy vs Effectiveness

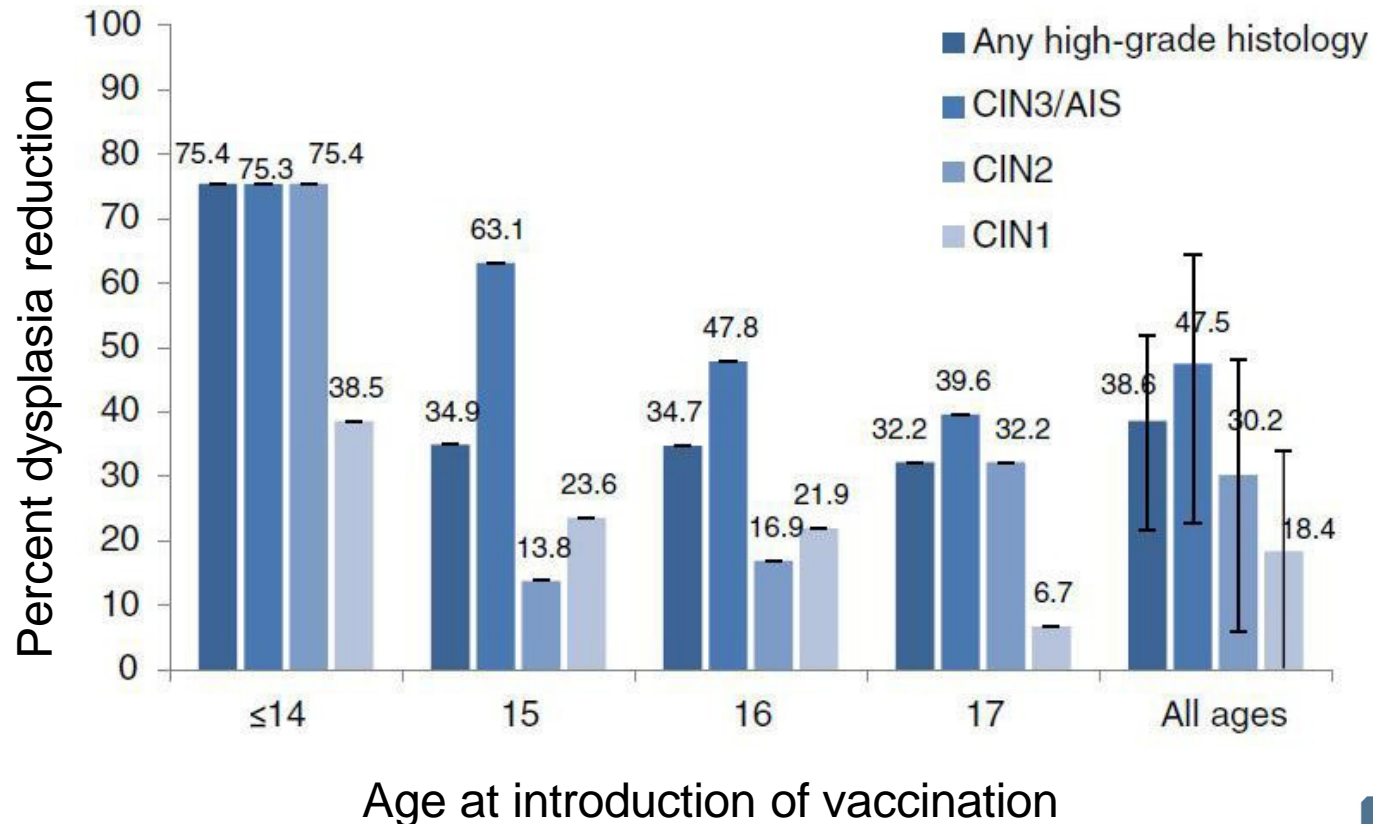
- Efficacy - reduction in disease under experimental conditions
 - Clinical trials
- Effectiveness – reduction in disease in “real world” setting
 - Observational/ecological studies
 - Linked studies

HPV Vaccine Effectiveness from NHANES 2003-2014

Age Group	4v HPV Prevalence Prevaccine Era (2003-2006)	4v HPV Prevalence Vaccine Era (2011-2014)
14-19 y	11.5%	3.3%
20-24 y	18.5%	7.2%
25-29 y	11.8%	8.8%

HPV Vaccine Effectiveness

Percent reduction in cervical dysplasia 5 years after vaccination, by age in 2007



HPV Vaccine Effectiveness from NHANES 2003-2014

	Unvaccinated (2011-2014)	Vaccinated (2011-2014)
4v HPV Prevalence	12.2%	2%

This corresponds to a vaccine effectiveness of 83%

HPV Vaccine Effectiveness

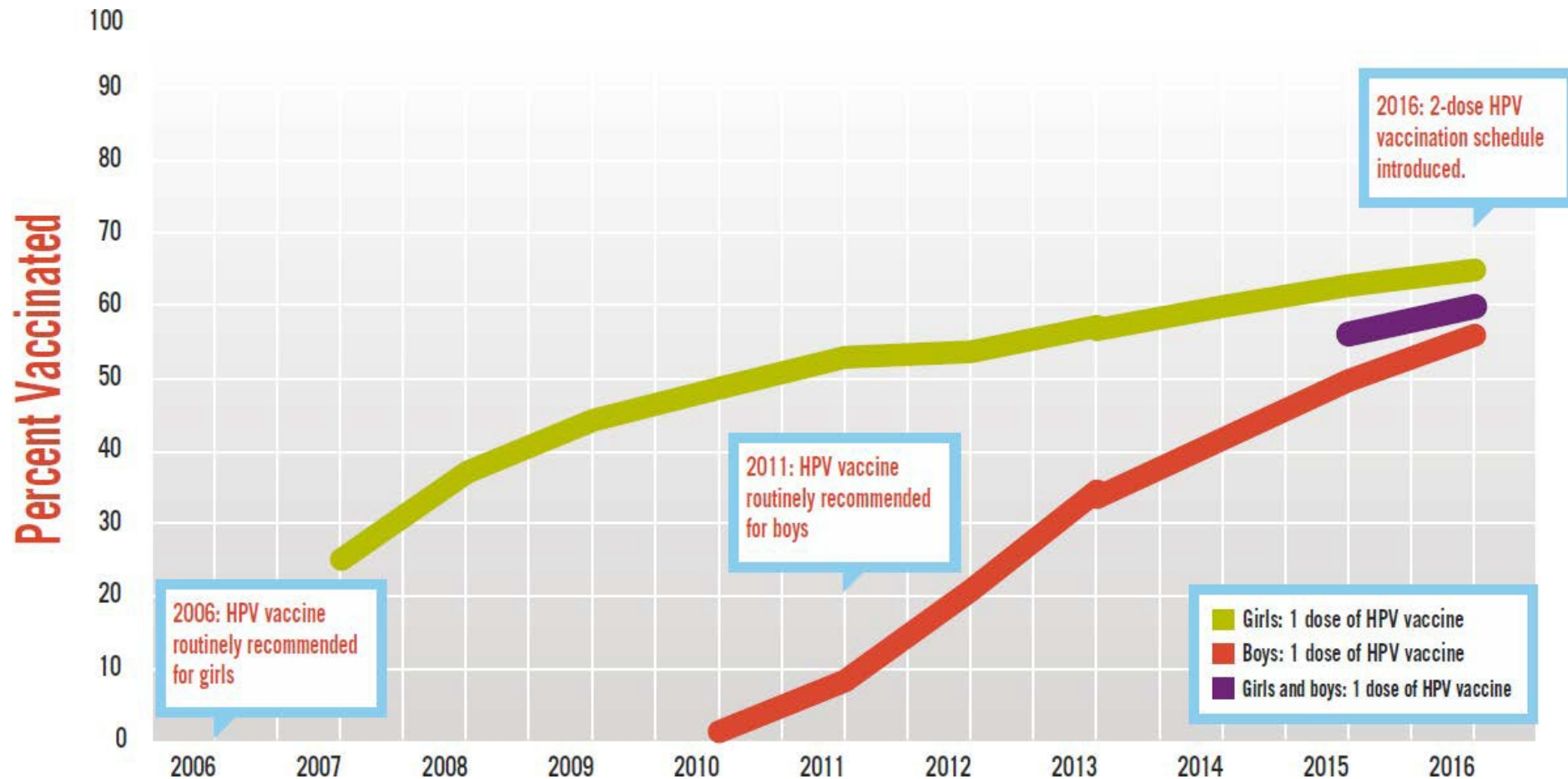
Table 1. Vaccine Effectiveness Against Human Papillomavirus (HPV) 16/18-Related Cervical Intraepithelial Neoplasia 2 or Worse Among Women Receiving Quadrivalent HPV Vaccine at the Start of the Baseline Study: Per-Protocol Efficacy Population

Endpoint	n	Number of Cases	Person-Years at Risk	Incidence Rate per 100 Person-Years at Risk (95% Confidence Interval)	Vaccine Effectiveness ^a (%)
HPV16/18-related CIN2+	2084	0	13c794.9	0.0 (0.0-0.0)	100
By time since day 1 of base study					
4 years or less	1930	0	803.5	0.0 (0.0–0.5)	
>4 to 6 years	2083	0	4119.9	0.0 (0.0–0.1)	
>6 to 8 years	2037	0	3978.7	0.0 (0.0–0.1)	
>8 to 10 years	1914	0	3393.1	0.0 (0.0–0.1)	
>10 to 12 years	1333	0	1479.0	0.0 (0.0–0.2)	
>12 to 14 years	124		20.6	0.0(0.0–17.9)	
By HPV type					
HPV16-related CIN2+	1787	0	11 809.9	0.0 (0.0-0.0)	
HPV18-related CIN 2+	1981	0	13115.5	0.0 (0.0-0.0)	
By lesion type					
CIN 2	2084	0	13 794.9	0.0 (0.0-0.0)	
CIN 3	2084	0	13 794.9	0.0 (0.0-0.0)	
Adenocarcinoma in situ	2084	0	13 794.9	0.0 (0.0-0.0)	
Cervical cancer	2084	0	13 794.9	0.0 (0.0-0.0)	

Abbreviations: CIN, cervical intraepithelial neoplasia; HPV, human papillomavirus.

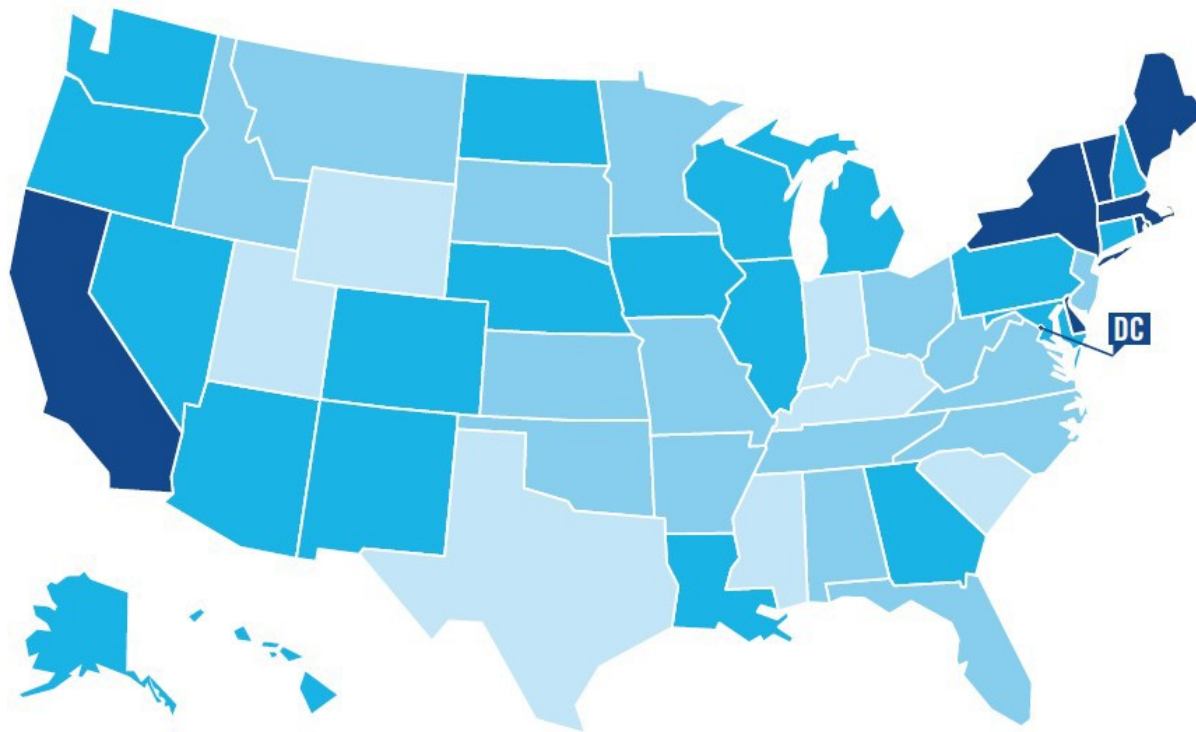
^aVaccine effectiveness measures the relative reduction of the disease incidence in vaccine recipients compared to the baseline incidence rate of 0.287 per 100 person-years established from the incidence rate in an unvaccinated cohort.

One or More Doses HPV Vaccine Among Females and Males 13-17 Years of Age, US



One or More Doses HPV Vaccine Among Females and Males 13-17 Years of Age, US

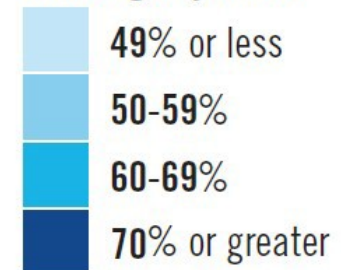
Percentage of adolescent boys and girls who have received one or more doses of HPV vaccine*



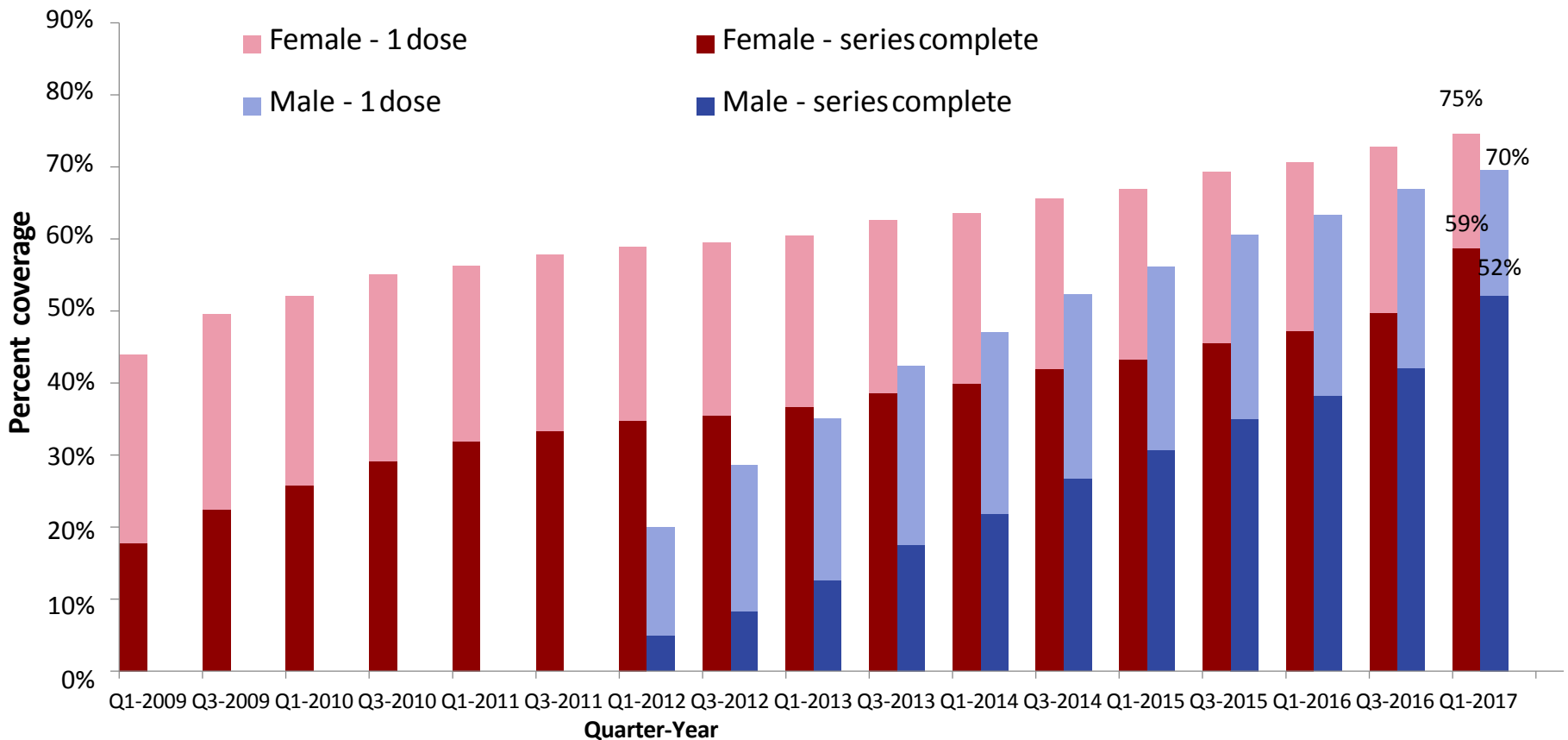
NATIONWIDE
6 OUT OF 10

parents are choosing to get the human papillomavirus vaccine for their children.

National coverage is 60%
Coverage by state:



HPV Vaccine Coverage Among Females and Males 13-17 Years of Age, NYC



75%
70%
59%
52%

Data Source: NYC DOHMH Citywide Immunization Registry (numerators) and NYC DOHMH Epiquery and 2010 US Census (population estimates). ¹ ACIP has recommended routine HPV vaccination for females ages 9-26 since 2006 and for males ages 11-21 since 2011.

² Series can be completed with 2 or 3 doses depending on series initiation at <15 years of age and interval between dose 1 and dose 2 is >5 months

Disparities in HPV Vaccine Coverage, NYC, Series Complete

18% - 45%

46% - 57%

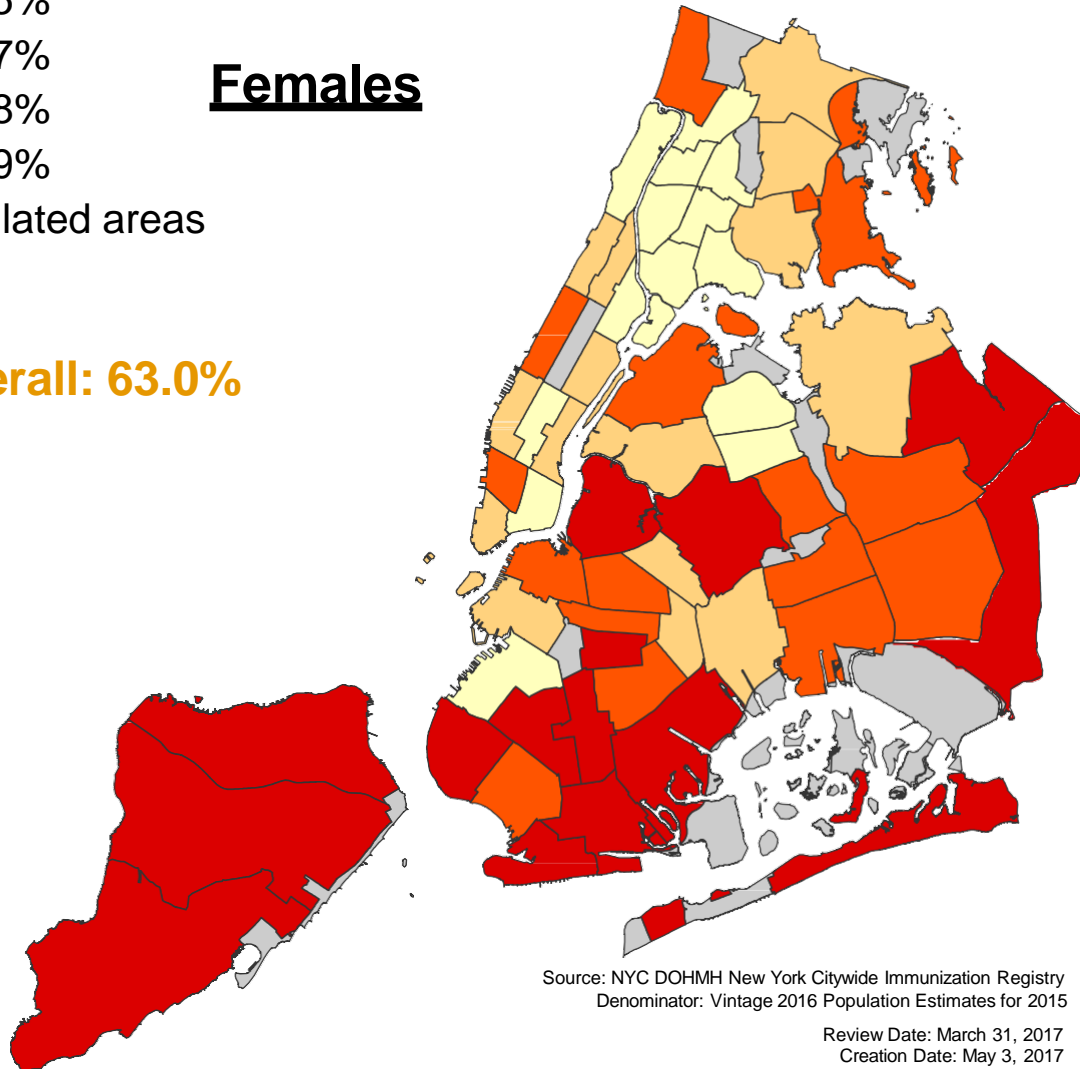
58% - 68%

69% - 89%

Unpopulated areas

Females

NYC Overall: 63.0%



Source: NYC DOHMH New York Citywide Immunization Registry
Denominator: Vintage 2016 Population Estimates for 2015

Review Date: March 31, 2017
Creation Date: May 3, 2017

Disparities in HPV Vaccine Coverage, NYC, Series Complete

14% - 38%

39% - 50%

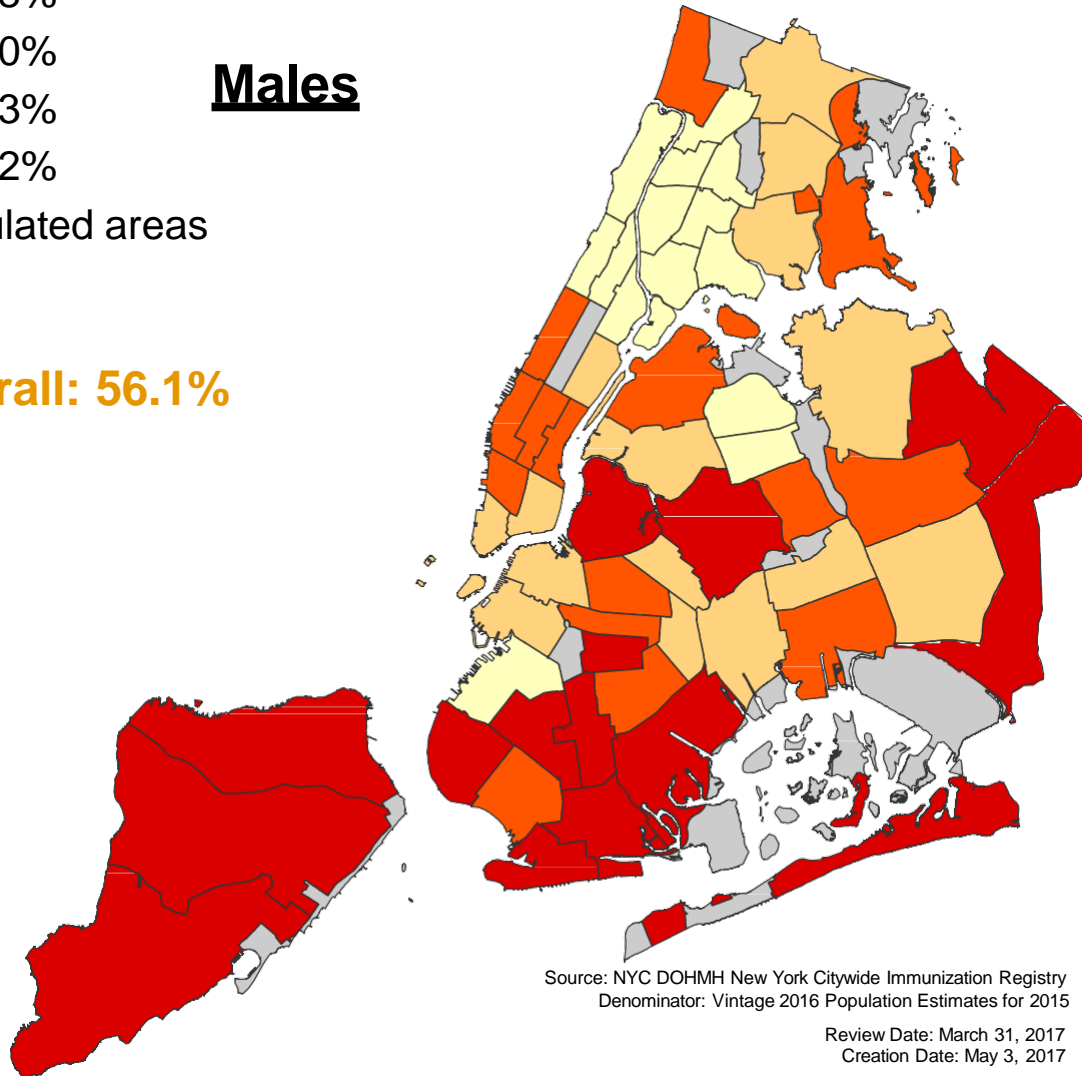
51% - 63%

64% - 82%

Unpopulated areas

Males

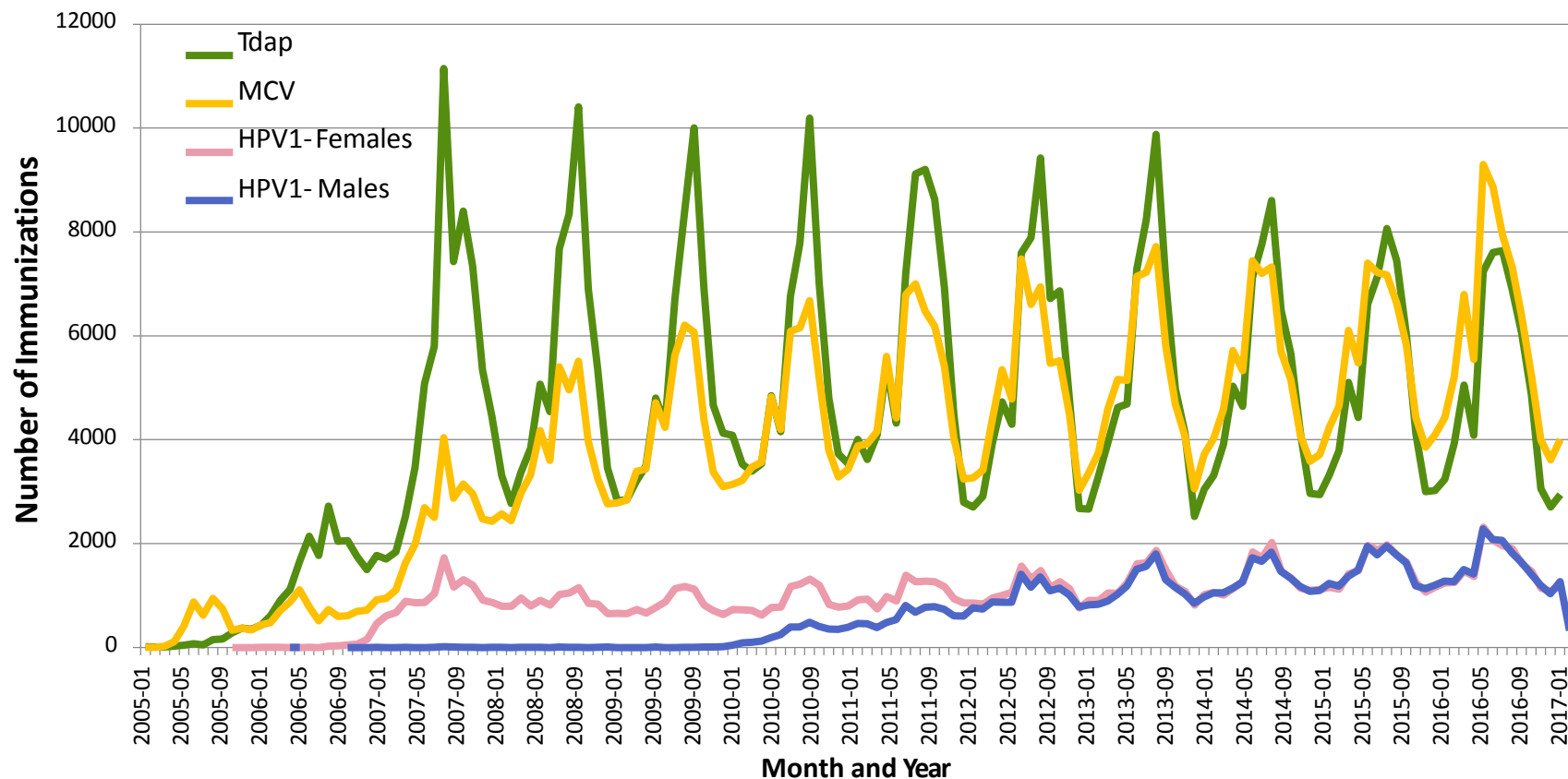
NYC Overall: 56.1%



Source: NYC DOHMH New York Citywide Immunization Registry
Denominator: Vintage 2016 Population Estimates for 2015

Review Date: March 31, 2017
Creation Date: May 3, 2017

Missed Opportunities for HPV Vaccine Administration, NYC



Tdap, MCV4, and first HPV doses administered to 11 year-olds each month from January 2005 – April 2017. Overall Tdap and MCV4 doses are shown. HPV vaccine doses are reported separately for males and females.

Reference: Sull M, et al. Pediatrics, 2014;134(6):e1576-1583

How Should We Introduce the Vaccine?

The Architecture of Provider-Parent Vaccine Discussions at Health Supervision Visits

Douglas J. Opel, John Heritage, James A. Taylor, Rita Mangione-Smith, Halle Showalter Salas, Victoria DeVere, Chuan Zhou and Jeffrey D. Robinson
Pediatrics 2013;132;1037; originally published online November 4, 2013;

Announcements Versus Conversations to Improve HPV Vaccination Coverage: A Randomized Trial

Noel T. Brewer, PhD,^{a,b} Megan E. Hall, MPH,^a Teri L. Malo, PhD,^b Melissa B. Gilkey, PhD,^c Beth Quinn, BS,^d Christine Lathren, MD^a

How Should We Introduce the Vaccine?

- ➡ Opel et al: 'Presumptive recommendation'
 - ➡ "We have some shots to do today"
 - ➡ Observational study
- ➡ Brewer et al: 'Announcements'
 - ➡ "Your child is due for 3 vaccines today..."
 - ➡ RCT

Putting Presumptive into Practice: Same Day, Same Way

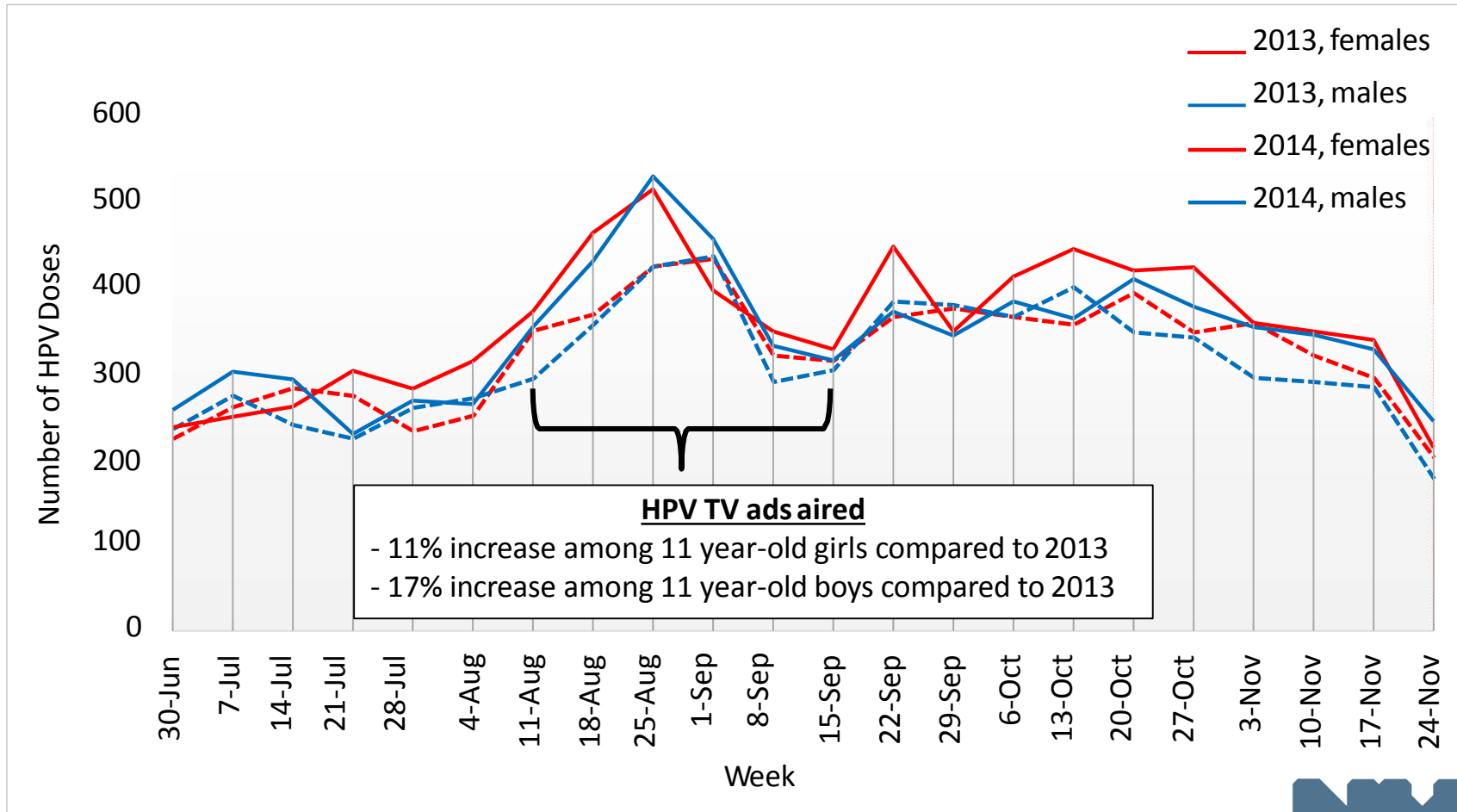
“Your child needs 3 vaccines today- Tdap, HPV and meningococcal”

“Today, your child should have 3 vaccines. They’re designed to protect him from meningitis, cancers caused by HPV and tetanus, diphtheria, and pertussis.”

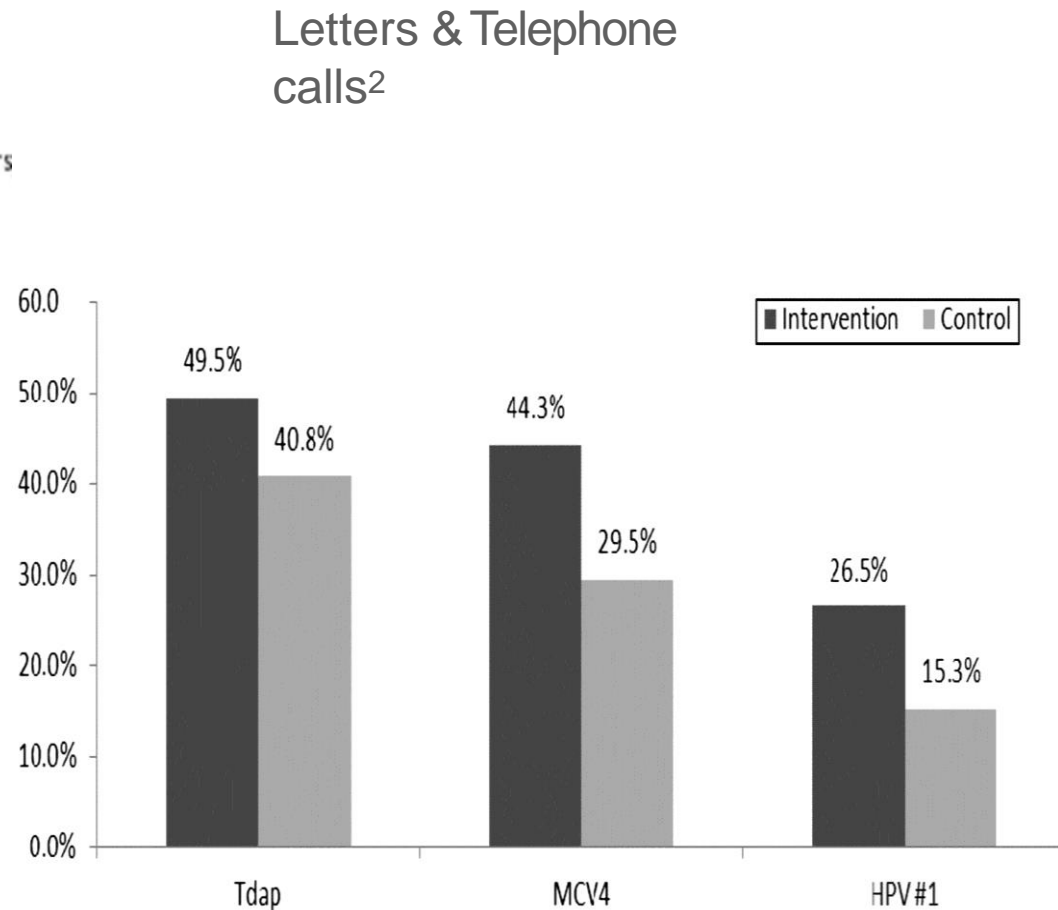
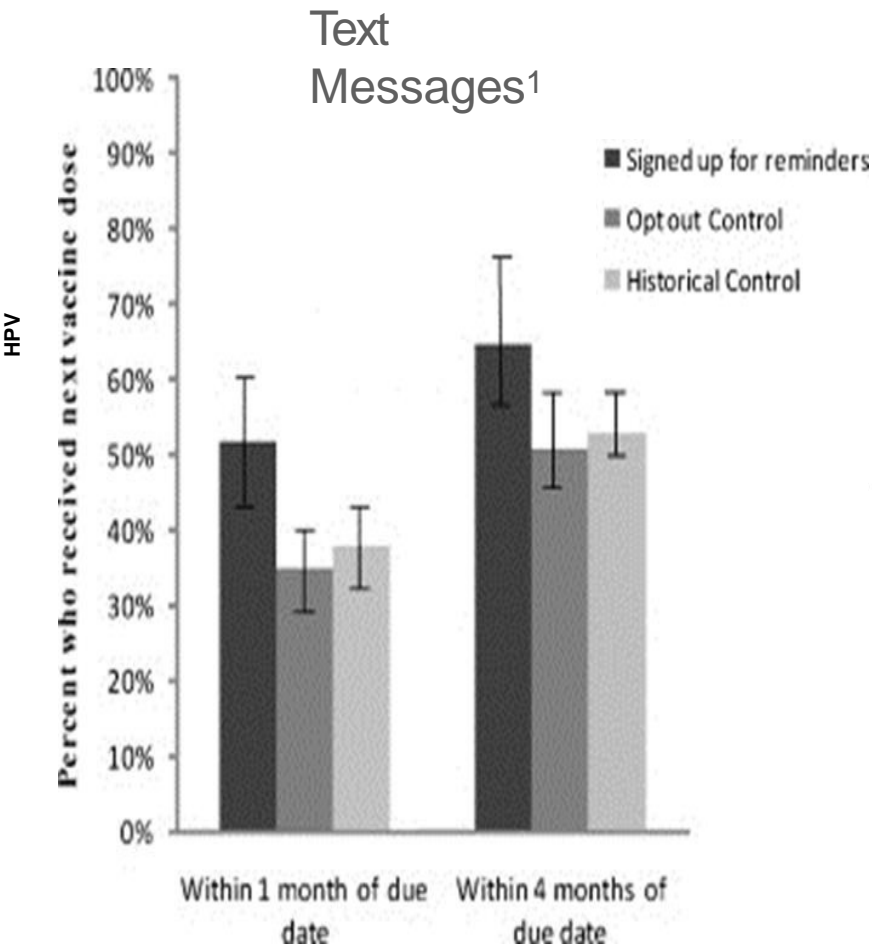
NYC Advertising Campaign



Effectiveness Evaluation of Citywide HPV Campaigns, 2014



Reminder/Recall Strategies Can Increase HPV Vaccination Rates



CIR for Coverage Reports

Standard Coverage Report

Report

- | | | | | |
|--|--|---|---|---|
| <input type="radio"/> 7-11 month olds
with...
3 DTP,
2 Polio,
2 Hib,
2 HepB,
3 Pneumococcal | <input type="radio"/> 19-35 months olds
with...
4 DTP,
3 Polio,
1 MMR,
3 HepB,
4 Hib,
1 Varicella,
4 Pneumococcal | <input type="radio"/> 24-35 month olds
with...
4 DTP,
3 Polio,
1 MMR,
3 HepB,
4 Hib,
1 Varicella,
4 Pneumococcal | <input type="radio"/> 11-18 year olds
with...
1 MCV,
1 Tdap,
3 HPV
(Males and females included) | <input type="radio"/> 13-17 year olds
with...
1 MCV,
1 Tdap,
3 HPV
(Males and females included) |
|--|--|---|---|---|

Review date (date as of which age will be calculated and report will be run.)

03/15/2017

(mm/dd/yyyy)

☐ Influenza Coverage Report

The flu season runs from August 1st through June 30th. You may not run an Influenza coverage report outside the flu season time frame. The influenza coverage reports are not based on your MyList population but, instead, replicates the methodology used in the up-to-date coverage reports you receive in the mail. You may view the population parameters shown below each report option.

☐ 6-59 month-olds:

An individual is considered your patient if you reported the last immunization administered to this patient on or after 14 days of age. During the current flu season, the youngest patient in this group turned 6 months of age on September 1st, and the oldest patient turns 60 months of age on April 1st.

☐ 5-10 year-olds:

An individual is considered your patient if you reported the last immunization administered to this patient on or after 4 years of age. During the current flu season, the youngest patient in this group turned 5 years of age on September 1st, and the oldest patient turns 11 years of age on April 1st.

☐ 11-18 year-olds:

An individual is considered your patient if you reported the last immunization administered to this patient on or after 10 years of age. During the current flu season, the youngest patient in this group turned 11 years of age on September 1st and the oldest patient turns 19 years of age on April 1st.

Report Name for identification later:

(For flu reports, the age range will be appended to the name)

Username_20170315_01

Cancel X

Clear

Continue →

CIR for Recall: Customizable

Create Custom Recall Job

A

☐ All patients in MyList

Specific Age

- ☐ 7-11 month olds
- ☐ 19-35 month olds
- ☐ 24-35 month olds

- ☐ 11-18 year olds
- ☐ 13-17 year olds
- ☐ 19+ year olds

☐ Age Range

From ≥ ☐ years ☐ months

To < ☐ years ☐ months

☐ DOB Range

Include patients born between

/ /

and

/ /

B

Gender

- ☒ Male
- ☒ Female

C

For immunization series:

Include patients who are missing:

☐ Any age-appropriate immunization

☐ Any age-appropriate immunization from the series below only:

- ☐ Influenza
- ☐ HepB
- ☐ Rotavirus
- ☐ DTaP
- ☐ Hib

- ☐ Pneumo. Conjugate
- ☐ Pneumo. Polysaccharide
- ☐ Polio
- ☐ Tdap

- ☐ MMR
- ☐ Varicella
- ☐ HepA
- ☐ Meningococcal
- ☐ Human Papillomavirus

☐ Include patients who do not have the # of specified valid doses from the series chosen below:

- 0-- ▾ Influenza
- 0-- ▾ HepB
- 0-- ▾ Rotavirus
- 0-- ▾ DTaP
- 0-- ▾ Hib

- 0-- ▾ Pneumo. Conjugate
- 0-- ▾ Pneumo. Polysaccharide
- 0-- ▾ Polio
- 0-- ▾ Tdap

- 0-- ▾ MMR
- 0-- ▾ Varicella
- 0-- ▾ HepA
- 0-- ▾ Meningococcal
- 0-- ▾ Human Papillomavirus

CIR for Recall: Lists Letters

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Recall Name: Username_MyList_Due_Any_20170315													
2	Date Created: 3/15/2017 12:20:59 PM													
3	Created By: 22904													
4	Based On: Patients in 'My List'													
5	Custom Recall: All Ages, Gender: Males and Females													
6	Total Patients: 19, Patients not UTD: 19 (100%) Patients UTD: 0 (0%)													
7	Doses: Patients missing any age appropriate immunization													
8														
9	Last Name	First Name	DOB	Gender	CIR Id	Medrec Num	Address	City	State	Zip	Home Phone	Cell Phone	Opted Out Text Msg	Due Now
10	ALCOTT	LOUISA	02/01/2008	F	543222663		13 Downing Street, 1ST FLOOR	BROOKLYN	NY	11215	212-676-2312	917-319-0521	N	HPV-1
11	KATZ	FELIX	05/26/1950	M	601854063		195 Main Street, 3C	BROOKLYN	NY	11205	646-479-8426		N	Influenza-1
12	RODGERS	AARON	03/13/1980	M	908399945		4209 28th Street, 5	QUEENS	NY	11105	347-396-2544		N	DTP-1, MMR-1, Varicella-1
13	RUBBLE	BARNEY	04/05/2007	M	883622687		50 Gravel Pit Way	BEDROCK	NY	10101	718-666-6666	718-666-6666	N	Influenza-1, HepB-1, Polio-1, MMR-1, Varicella-1, I
14	TESTDISNEY	TESTBUGS	12/23/1980	M	908386384		4209 28th Street, 5	QUEENS	NY	11101	374-396-2544		N	DTP-1, MMR-1, Varicella-1

March 15, 2017

Dear Parent/Guardian:

Our records show that your child may need the following vaccines:

Patient Name: FELIX KATZ

Immunizations Due Now: Influenza-1

Please call our office at 347-396-2400 to schedule an appointment at your earliest convenience.

Thank you,

To the Parent/Guardian of:
LOUISA ALCOTT
13 Downing Street, 1ST FLOOR
Brooklyn, NY 11215

To the Parent/Guardian of:
FELIX KATZ
195 Main Street, 3C
Brooklyn, NY 11205

To the Parent/Guardian of:
AARON RODGERS
4209 28th Street, 5
Queens, NY 11105

To the Parent/Guardian of:
BARNEY RUBBLE
50 Gravel Pit Way
Bedrock, NY 10101

To the Parent/Guardian of:
TESTBUGS TESTDISNEY
4209 28th Street, 5
Queens, NY 11101

To the Parent/Guardian of:
TESTAARON TESTRODGERS
4209 28th Street, 5
Queens, NY 11105

CIR Text Message Recall

Select message (default recommended.) This message will be sent to each patient on your recall list.

- ☒ **Use default message**
Fill in the fields for the sample message provided.

Your child born in
CIR will insert patient birth YEAR here
is overdue for immunization. Call

FACILITY NAME (up to 42 characters):

Characters remaining: 42

at **CONTACT NUMBER:**
to schedule.

- ☐ **Use custom message**
Type in your custom message.
Make sure to include your facility name.

(Messages are limited to Latin alphabets.)

130 character limit

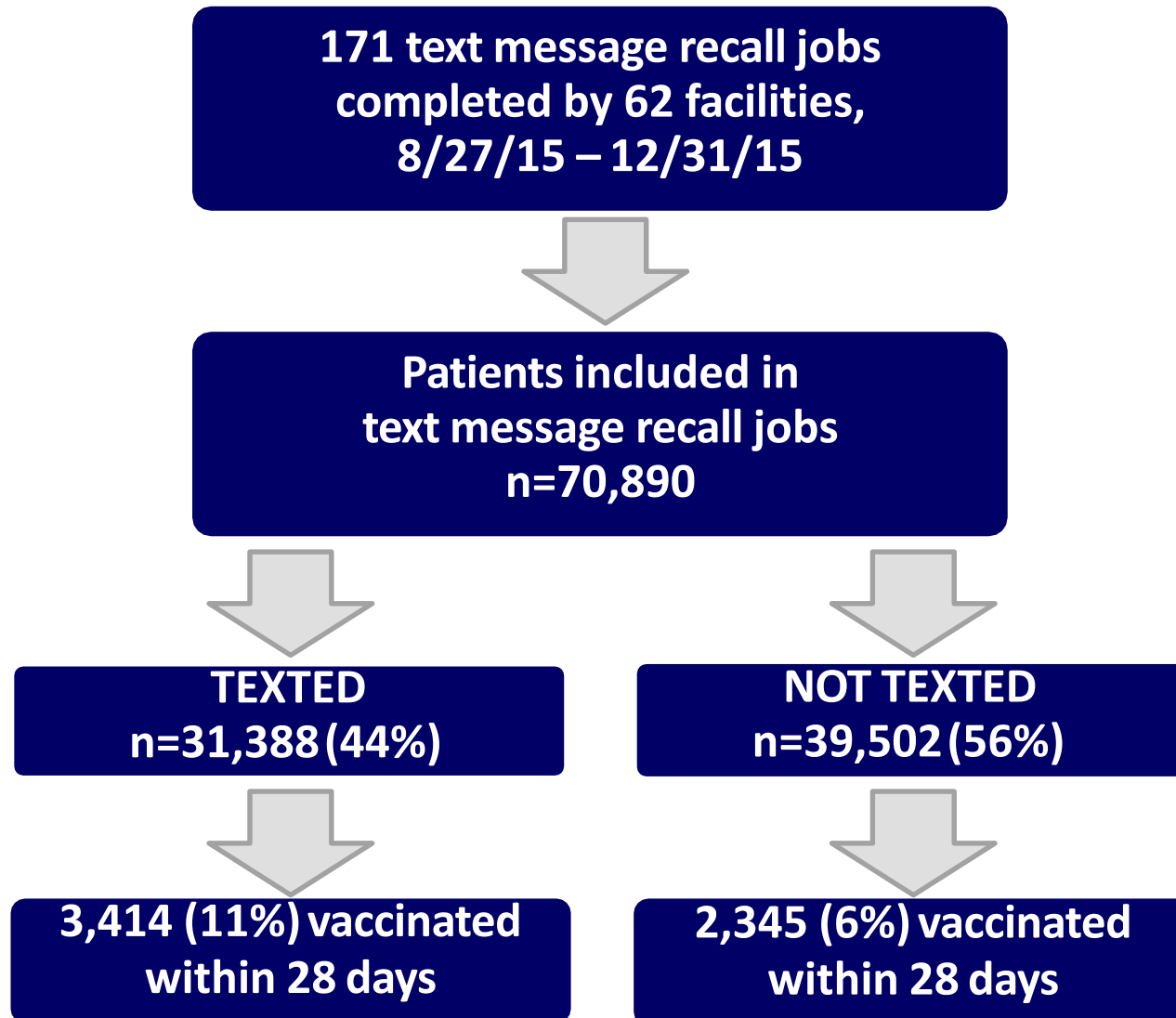
Characters remaining: 130

NOTE: To allow patients to opt out of receiving text message reminders, the line "To stop reminders, text STOP" will be added to the end of your message.

Patients who text "STOP" will not receive any future text messages via the CIR.

Please note that it is your responsibility to adhere to the laws, rules, and regulations that apply to the disclosure of confidential and sensitive information in the content of your custom text message.

Impact of Text Message Recall



Standing Orders

- Single physician order for all patients for recommended vaccines
- Stipulate that all patients meeting certain criteria should be vaccinated – age, underlying medical condition
- Components
 1. Nurse/MA tracks immunization history
 2. Nurse/MA identifies eligible patients
 3. Nurse/MA educates patients –alert provider if patient still has questions or wants to talk with the provider
 4. Nurse administers vaccines

Benefits of Standing Orders

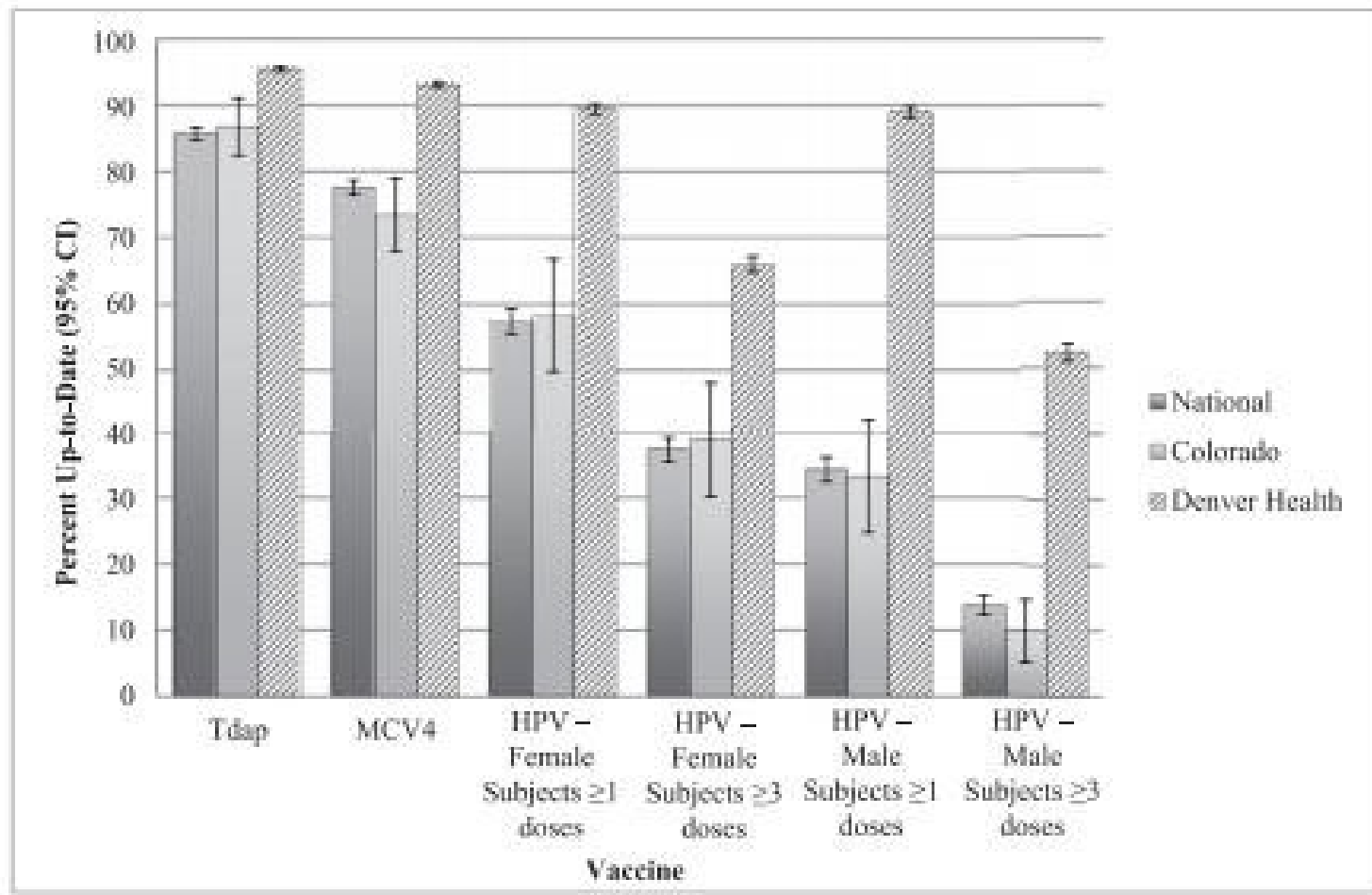
- Shown to be effective in both adults and children
 - For children, use of standing orders is associated with a median increase in vaccination coverage of 28%
 - Most effective evidence-based method
- Overcome administrative barriers and save time
- ‘Presumptive’ recommendation in action

The Denver Health Story

- ➡ Large vertically integrated community health system
 - ➡ Cares for about 1/3 of all children in Denver
 - ➡ 8 community health centers, 16 school-based health centers
- ➡ For many years, had 'typical' immunization process, with similar rates to national average

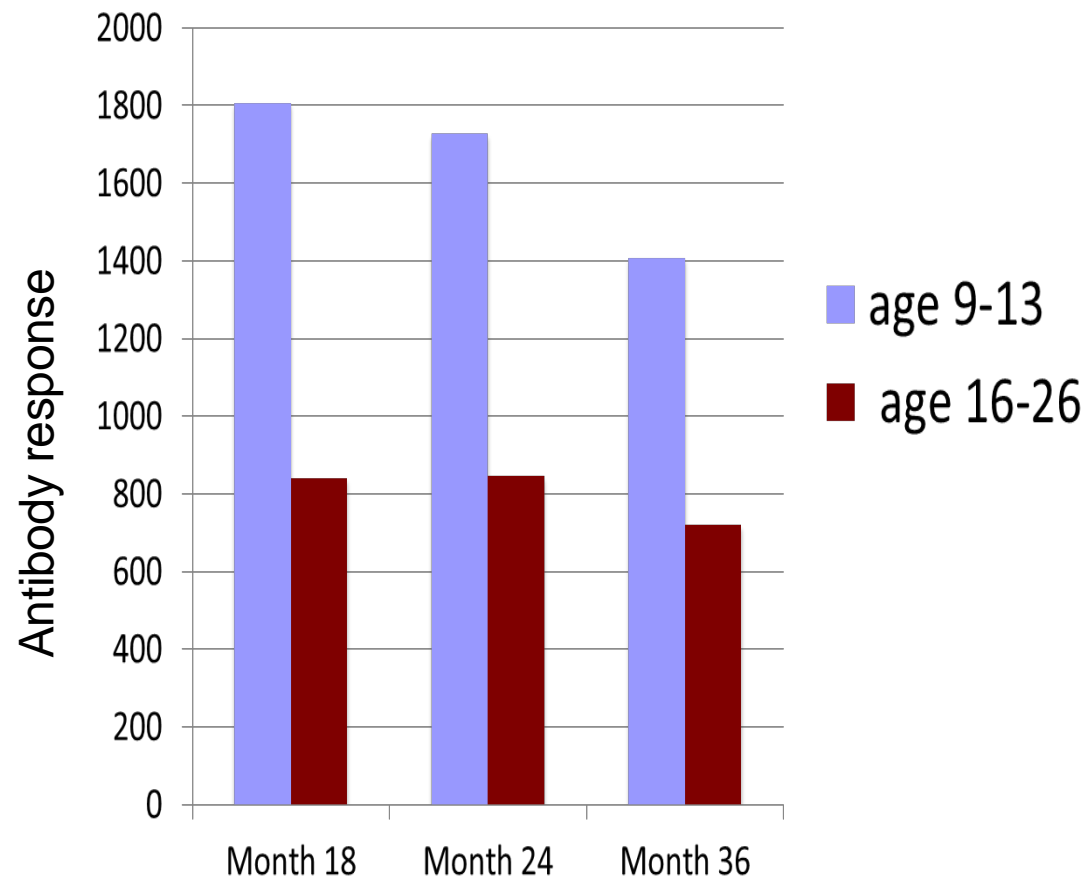


Adolescent Vaccine Rates with Standing Orders



Why Vaccinate at Ages 11-12?

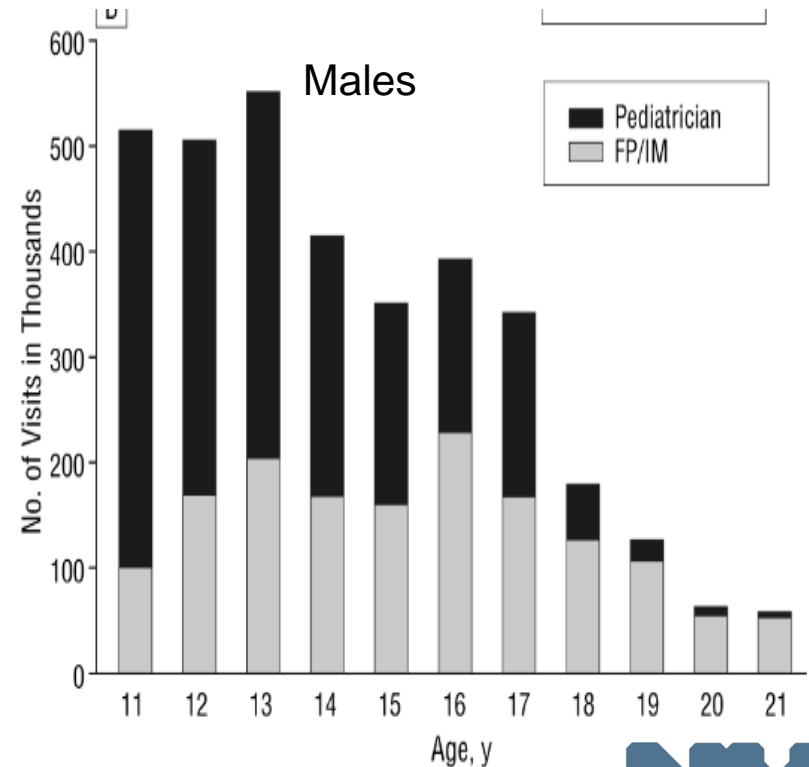
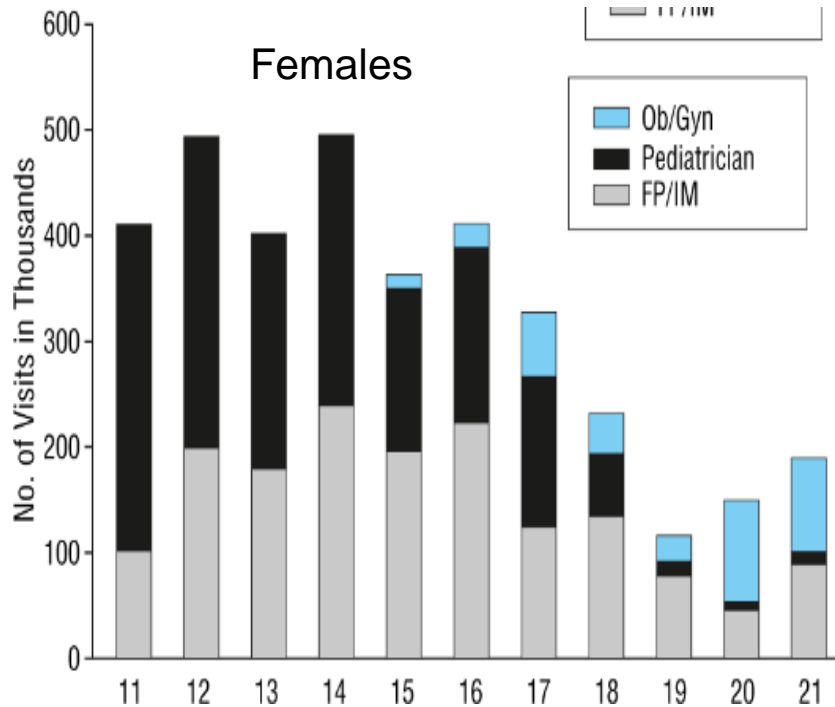
1) Better immune response



Why Vaccinate at Ages 11-12?

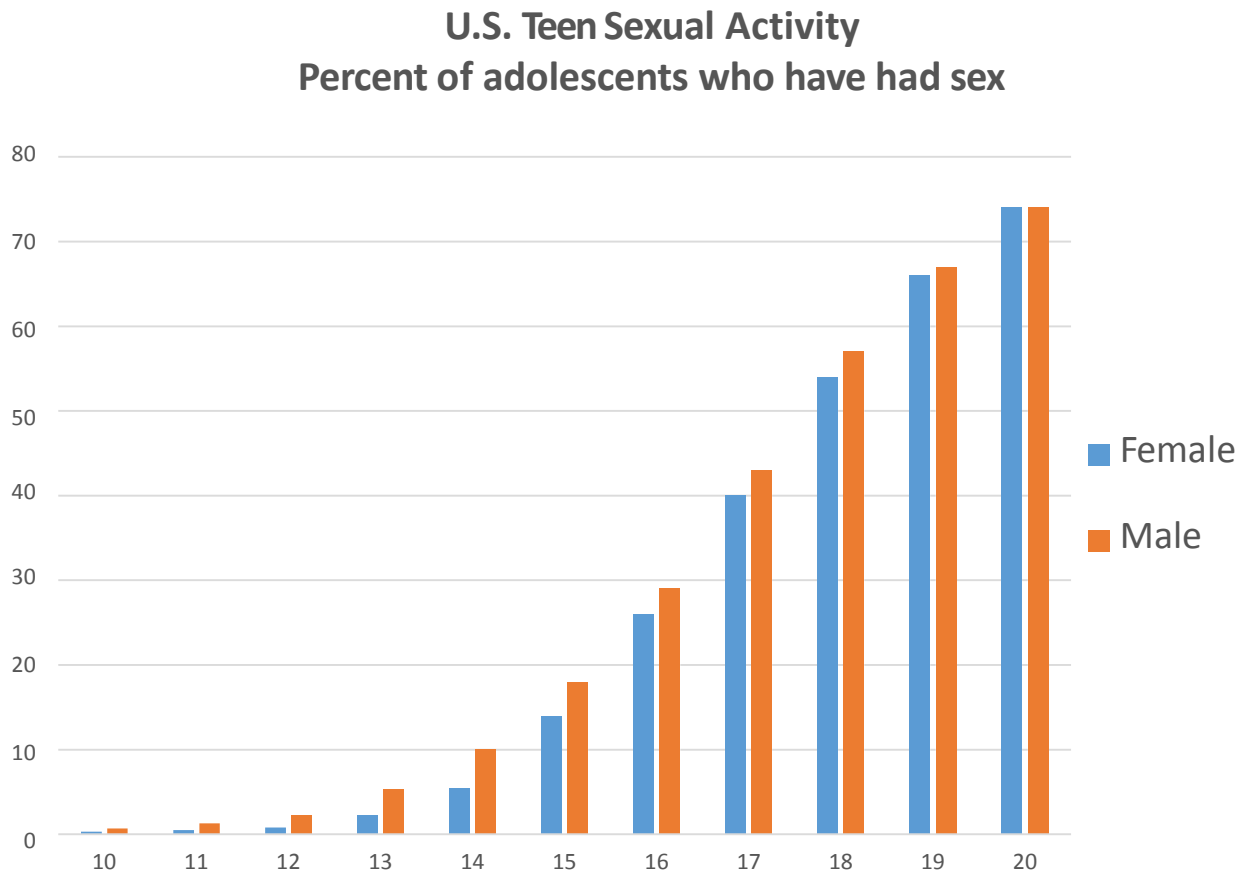
2) More chances to vaccinate

Early adolescents have 3 times more preventive care visits than late adolescents



Why Vaccinate at Ages 11-12?

3) Lack of exposure



Why Vaccinate at Ages 11-12?

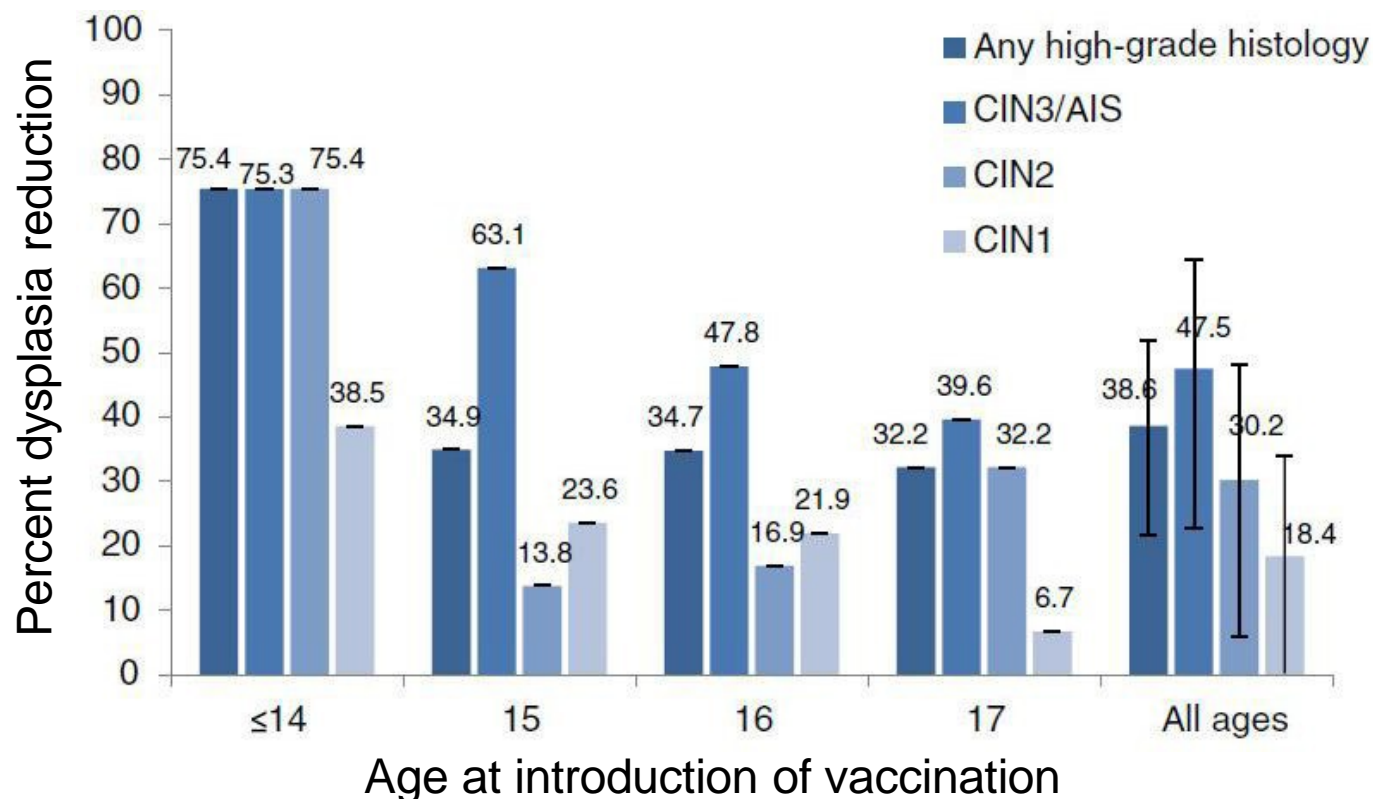
4) Long duration of immunity

- ➡ No evidence of waning protection up to 10 years after 3-dose schedule
- ➡ Antibody kinetics with 2-dose schedules are similar, suggesting there will be similar protection

Why Vaccinate at Ages 11-12?

5) Prevents twice as much pre-cancer

Percent reduction in cervical dysplasia 5 years after vaccination, by age at vaccination



Why Vaccinate at Ages 11-12?

What I say to patients:

“The HPV vaccine works better and prevents more cancers at younger ages.

If Ella gets the vaccine today she will only need 2 doses, but if we wait until she’s older she may need 3 doses.”

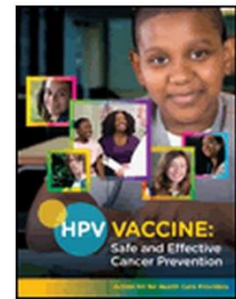
Why Vaccinate at Ages 11-12?

Why NOT Vaccinate at Ages 9 - 10?

You can't vaccinate too early.....
Only too late

HPV VACCINATION RESOURCES

HPV Provider Toolkit



Key Strategies Card

YOU ARE THE KEY TO PREVENTING CANCERS CAUSED BY HPV.

Give a strong recommendation for the HPV vaccine. Focus on cancer prevention.
 "I believe in the importance of the HPV vaccine, as do other medical experts, like the American Academy of Pediatrics and the American Cancer Society. I strongly recommend you vaccinate your child today to prevent cancers caused by HPV later in life."

Bundle adolescent vaccines. Recommend HPV vaccine as you would Tdap and meningococcal vaccines.
 "Your child needs three shots today: Tdap, HPV and meningococcal vaccines."

Avoid missed opportunities to vaccinate your patients against HPV.
 "Don't miss an opportunity to protect your child against deadly cancers caused by HPV. Since you're already in the office, let's vaccinate your child today."

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Provider FAQs

TALKING TO PARENTS ABOUT THE HPV VACCINE
Provider FAQs

Many providers report that talking to parents about the HPV vaccine is difficult and time-consuming. Your strong recommendation is crucial to vaccine acceptance among parents. Below are tips for simple answers to parents' common questions.

What about HPV? Is it so bad that my child needs three shots?
 HPV infection in a teen or young adult can lead to painful and deadly cancers later in life. These include cervical, vaginal, vulvar, and anal and oropharyngeal (back of the throat) cancer in women and anal, oropharyngeal and penile cancer in men. The HPV vaccine protects against the types of HPV that cause most of these cancers.

How do you get HPV?
 HPV is spread through any kind of sexual contact, not just intercourse. HPV can be passed even when the infected person has no signs or symptoms.

Is HPV as common that I should worry about my child becoming infected?
 Yes, HPV is very common. The majority of sexually active people will have HPV infection at some point in their lives.

Is giving the HPV vaccine to teens like giving them a license to have sex?
 No—several studies show that teens vaccinated against HPV do not have sex at an earlier age and do not have more sexual partners than their peers who are not vaccinated.

My child is too young to be sexually active. Why should my child get the HPV vaccine now?
 The HPV vaccine is most effective when given before any sexual activity (i.e., potential exposure to HPV). As with other diseases, like measles, it is important to vaccinate well before exposure to an infection. Studies also show that the HPV vaccine works best when given before age 13 because the body has a higher immune response.

How well does the HPV vaccine work?
 HPV vaccine works very well. It protects against the most common cancer-causing types of HPV. Studies conducted before the vaccine was licensed showed that the vaccine was nearly 100% effective in preventing cervical, vaginal

and vulvar abnormalities and 75% effective in preventing anal abnormalities. These abnormalities can lead to cancer. Within the vaccine's first four years of use in the U.S., infections with the types of HPV the vaccine prevents dropped by 50% among teen girls.

How long does the HPV vaccine provide protection?
 Data from clinical trials and ongoing research since the vaccine became available show that the HPV vaccine provides protection for at least 10 years. There is no evidence to suggest that the vaccine loses its ability to protect over time.

How do I know the HPV vaccine is safe?
 All vaccines used in the U.S. must go through rigorous testing before they are approved and can be given, even after vaccines are in use, they are continually monitored for safety. Over 47 million doses of HPV vaccine have been distributed in the U.S., and 175 million have been given worldwide. Multiple studies have found no serious safety concerns linked to HPV vaccine.

What are the side effects of the HPV vaccine?
 The most common side effects are usually mild, short-lived and go away on their own. They include soreness, redness or swelling at the injection site, mild to moderate fever and headache. The safety concerns most frequently reported is a brief fainting spell, which is not specific to HPV vaccine and is more common among teens than children or adults following any vaccination.

Is it safe to get the HPV vaccine with other shots?
 Yes, HPV vaccine is safe to receive with other vaccines. Your child's visit to receive the meningococcal vaccine and the Tdap vaccine, which is required for sixth grade entry, is the best time to vaccinate your child against HPV.

NYC Health

Tear-off Pad* (for parents)

HPV VACCINE: A Safe and Effective Way to Protect Your Child from Cancer

27,000 Cancers Caused by HPV Each Year
 That equates to one person every 20 minutes, every day, all year long.

HPV (HUMAN PAPILLOMAVIRUS) IS VERY COMMON.
 14 million Americans are newly infected each year. Half are age 15 to 24.

HPV vaccine is highly effective.

- The vaccine protects against the most common cancer-causing types of HPV.
- Large studies before the vaccine was licensed showed that it was:
 - Nearly 100% effective in preventing cervical, vaginal and vulvar cancers.
 - 75% effective in preventing anal pre-cancers.
- In the U.S., infections with the types of HPV the vaccine prevents dropped by 50% among girls aged 14 to 19 within the first four years of use.
- A decade later, a national HPV school vaccination program. After just three years of the program:
 - Infections with the types of HPV the vaccine prevents decreased 75% among women aged 18 to 24.
 - Pre-cervical cancer abnormalities decreased 75% in women under 18.
 - Cervical warts, which are caused by HPV, decreased 53% in women under 21 and 82% in men under 21.
 - If 85% of girls 12 and older in the U.S. were vaccinated against HPV, 18,000 cases of cervical cancer and 13,700 deaths would be prevented.
 - The evidence so far shows that protection is long-lasting.

HPV vaccine is safe.

- Health experts studied the vaccine before it was licensed. They found that less than 5% of people had a serious health issue after vaccination. This rate was similar to people who didn't get the vaccine at all.
- Over 67 million doses of HPV vaccine have been distributed in the U.S. and more than 175 million doses have been given worldwide since 2006, when the vaccine was licensed.
- Health experts continue to monitor the safety of the vaccine. In over eight years, no serious safety concerns have been linked to vaccination.
- The most common side effects reported are mild and short-lived. They include:
 - Injection site pain (about 6 in 10).
 - Fatigue or swelling at injection site (3 in 6).
 - Low-grade fever (1 in 10).
 - Soreness and headache (1 in 10).
- Common side effects, however, and fainting are more common among teens than the general population following any vaccination.
- It is safe to receive the HPV vaccine at the same time as other vaccines. Your child's visit to receive the meningococcal vaccine and the Tdap vaccine (required for sixth-grade entry) is the best time to vaccinate your child against HPV.

THE HPV VACCINE COULD SAVE YOUR CHILD'S LIFE.
 Ask your child's doctor about it today.
 Make sure your child is vaccinated at age 11 or 12, when the vaccine works best.

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<https://www1.nyc.gov/site/doh/providers/resources/public-health-action-kits-hpv.page>

Double-sided English/Spanish. Also available in Chinese, Arabic, Bengali, Urdu, Haitian-Creole, Korean, French, Russian

For More Information

- **NYC DOHMH**
 - **CIR**
 - <http://www1.nyc.gov/assets/doh/downloads/pdf/cir/cir-recall-guide.pdf>
- **CDC**
 - <https://www.cdc.gov/hpv/hcp/index.html>
- **AAP**
 - Info for parents (www.healthychildren.org)
 - Info for clinicians (<https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/immunizations/HPV-Champion-Toolkit/Pages/HPV-Champion-Toolkit.aspx>)
- **CHOP Vaccine Education Center**
 - <http://www.chop.edu/centers-programs/vaccine-education-center>

Contact info

New York City Department of Health
and Mental Hygiene

Bureau of Immunization

nycimmunize@health.nyc.gov

(347)396-2400