

PRETEEN VACCINE WEEK 2015

Planning Call

Wednesday, October 22

11:00 AM

Call-In Information

- Phone: 866-914-9397
- Passcode: 6988902

September call summary

- Campaign Evaluation
- Digital Metrics Basics

HPV Vaccine: Delivering a Strong Message for this Preteen Vaccine

**Preteen Vaccine Week
October 2014**

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Background: HPV

- **Most common sexually transmitted infection in the U.S.**
- **Estimated 14 million persons are newly infected every year among persons 15-59 years in the U.S.**
 - About half of new infections occur among persons 15-24 years
- **Estimated 79 million persons are currently infected in the U.S.**

Satterwhite CL. Sex Transm Dis 2013; 40: 187-93.

Average Annual Number of Cancers Attributable to any HPV (HPV16/18) By Anatomic Site and Sex—U.S., 2006-2010

Cancer Type	Females	Males	Both Sexes
Cervical Cancer	10,400 (7,000)	0	10,400
Anus	2,600 (2,100)	1,400 (1,100)	4,000
Oropharyngeal	1,800 (1,100)	7,200 (4,500)	9,000
Penis	0	700 (300)	700
Vagina	600 (300)	0	600
Vulva	2,200 (1,100)	0	2,200
Total	17,600 (11,600)	9,300 (5,900)	25,900 (17,500)

MMWR 2014; 63(4): 1-30.

Recommendation for Use of HPV Vaccines

- Routine vaccination at age 11 or 12 years with HPV4 (Gardasil®) or HPV2 (Cervarix®) for females and with HPV4 for males. The vaccination series can be started beginning at age 9 years

Recommendations if Not Vaccinated at Routine Age

- Recommended for females aged 13 through 26 years and for males 13 through 21 years, who have not been vaccinated previously or who have not completed the 3 dose series. Males aged 22 through 26 years may be vaccinated.
- If persons reach age 27 years before the vaccination series is complete, the 2nd and/or 3rd doses of vaccine can be administered after age 26 years to complete the vaccine series

Risk-based ACIP Recommendations

- **Vaccination is recommended through age 26 years for immunocompromised males and for MSM who have not been vaccinated previously or who have not completed the 3-dose series.**

History of Sexual Abuse or Assault

- HPV vaccination is recommended beginning at age 9 years for children and youth with any history of sexual abuse or assault who have not initiated or completed the 3-dose series.

MMWR 2014; 63(4): 1-30.

Background: HPV Vaccine Introduction in the U.S.

- **2006:**
 - (Quadrivalent) HPV4 vaccination introduced into the routine immunization schedule in 2006 for females aged 11 or 12 years with catch-up 13 through 26 years.
- **2009:**
 - (Bivalent) HPV2 vaccine added to the routine recommendation
 - Permissive HPV4 vaccination recommendation for males through age 26 years
- **2011**
 - Routine HPV4 vaccination recommendation for males at age 11 or 12 years with catch-up through age 21 years and permissive recommendation ages 22 through 26 years.

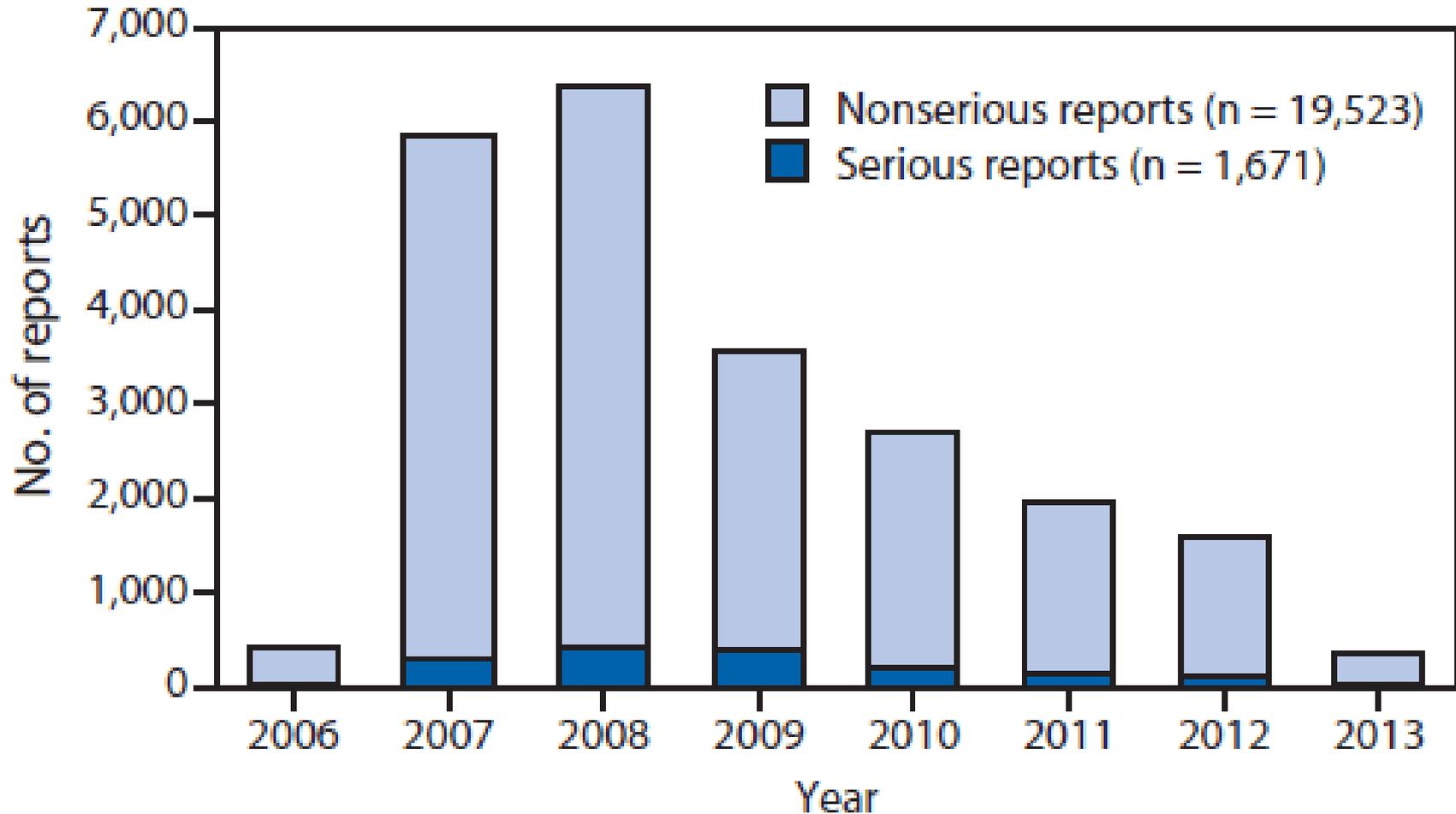
MMWR 2014; 63(4): 1-30.

Safety

Postlicensure Monitoring

- **US distribution of HPV vaccines from June 2006 through March 2014**
 - ~67million doses of HPV4
 - ~0.7 million doses of HPV2
- **No new concerns identified in VAERS reporting; Continuing reports of serous AEs primarily**
 - Headache, nausea, vomiting, fever
- **Syncope also reported**
 - Post-injection syncope seen in adolescents generally
 - 15 minute waiting period recommended

VAERS Reports on HPV4 Vaccine



MMWR 3013 ; www.cdc.gov/mmwr/preview/mmwrhtml/mm6229a4.htm

Vaccine Safety Datalink Monitoring

- Data on first ~600,000 HPV4 doses given to females
 - No increased risk of GBS, stroke, venous thromboembolism, appendicitis, seizures, syncope, allergic reactions or anaphylaxis.

Gee J. *Vaccine* 2011;29:8279.

Efficacy Studies: HPV Vaccine

Quadrivalent HPV Vaccine: Per-protocol efficacy, end-of-study analysis among females

Vaccine/Endpoint related type	Vaccine (cases/n)	Control (cases/n)	%	(95% CI)
CIN 2/3 or AIS				
HPV 6, 11, 16, 18	2/7864	110/7865	98.2%	(93.3-99.8)
HPV 16	2/6647	81/6455	97.6%	(91.1-99.7)
HPV 18	0/7382	29/7316	100.0%	(86.6-100.0)
VIN/VaIN 2/3				
HPV 6, 11, 16, 18	0/7900	23/7902	100.0%	(82.5-100.0)
HPV 16	0/6654	17/6467	100.0%	(76.5-100.0)
HPV 18	0/7414	2/7343	100.0%	(<0-100.0)
Genital Warts				
HPV 6 and/or 11	2/6718	186/6647	98.9%	(96.1-99.9)

Kjaer et al. Cancer Prev Res 2009;2:868-78.

Dillner J et al. BMJ 2010; 341:c3493.

Bivalent HPV Vaccine: Per-protocol efficacy, end-of-study analysis among females

Vaccine/Endpoint related type	Vaccine (cases/n)	Control (cases/n)	%	(95% CI)
CIN2/3 or AIS				
HPV 16 and/or 18	5/7338	97/7305	94.9%	(87.7-98.4)
HPV 16	2/6296	81/6160	97.6%	(91.0-99.7)
HPV 18	3/6789	23/6739	87.1%	(57.2-97.5)

Lehtinen et al. Lancet Oncol 2012; 13:89-99; Suppl. Appendix Table 3.

Per protocol efficacy of quadrivalent HPV vaccine among males 16-26 years

Endpoint	Vaccine Cases/n	Control Cases/n	% Efficacy	95% CI
Genital Warts	3/1397	28/1408	89.4%	(65.5-97.9)
PIN	0/1397	3/1408	100.0%	(-141.2-100.0)
AIN 1/2/3	5/194	24/208	77.5%	(39.6-93.3)
AIN 2/3	3/194	13/208	74.9%	8(.8-95.4)

Giuliano et al. NEJM 2011; 364:401-11.

Palefsky J. et al. NEJM 2011;365:1576-85.

Early Evidence of HPV Vaccine Effectiveness

California Data

**Estimated Coverage with HPV Vaccine among Adolescents,
United States, aged 13 – 17 years, Females
National Immunization Survey—Teen 2007-2013**

	U.S.		California	
	≥ 1 HPV* % (95% CI)	≥ 3 HPV* % (95% CI)	≥ 1 HPV* % (95% CI)	≥ 3 HPV* % (95% CI)
2007	25.1% (22.3-28.1)	--	--	--
2008	37.2% (35.2-39.3)	17.9% (16.3- 19.6)	46.6% (36.1- 57.5)	22.1% (14.2-32.8)
2009	44.3% (42.4-46.1)	26.7% (25.2-28.2)	49.2% (39.9-58.6)	21.8% (15.8-29.4)
2010	48.7% (46.9-50.5)	32.0% (30.3-33.6)	56.1% (46.9-64.9)	32.0% (24.5-40.6)
2011	53.0% (±1.7)	34.8% (±1.6)	65.0% (±6.8)	42.9% (±7.3)
2012	53.8% (±1.9)	33.4% (±1.7)	65.0% (±8.3)	35.8% (±8.4)
2013	57.3% (±1.9)	37.6% (±1.9)	67.6% (±9.4)	45.8% (±10.2)

<http://www.cdc.gov/vaccines/imz-managers/coverage/nis/teen/index.html>

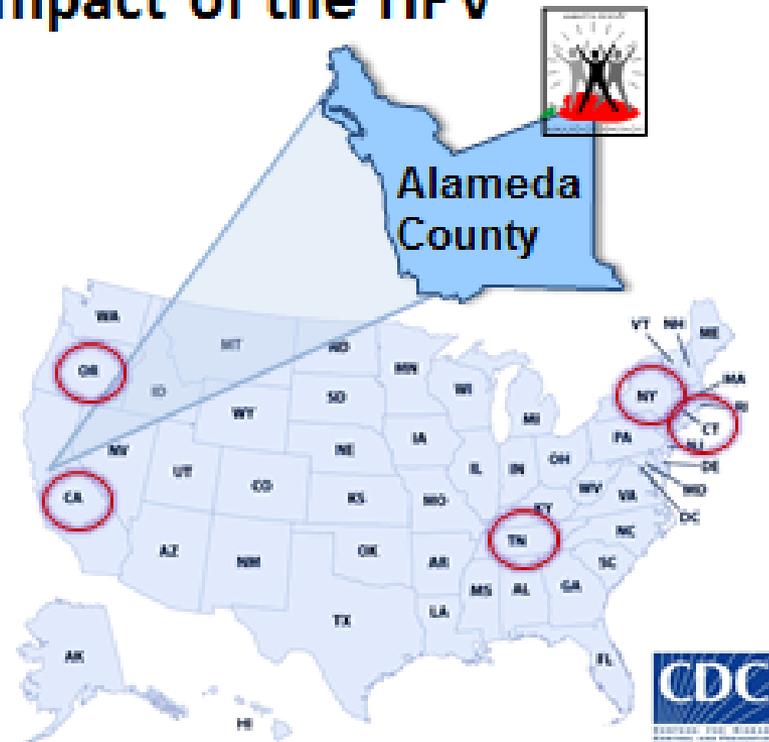


What is HPV-Impact?



Population-based surveillance of cervical pre-cancer to evaluate the impact of the HPV vaccines, by

1. Monitoring cervical pre-cancer
2. Monitoring HPV types
3. Tracking HPV vaccine history and cervical cancer screening



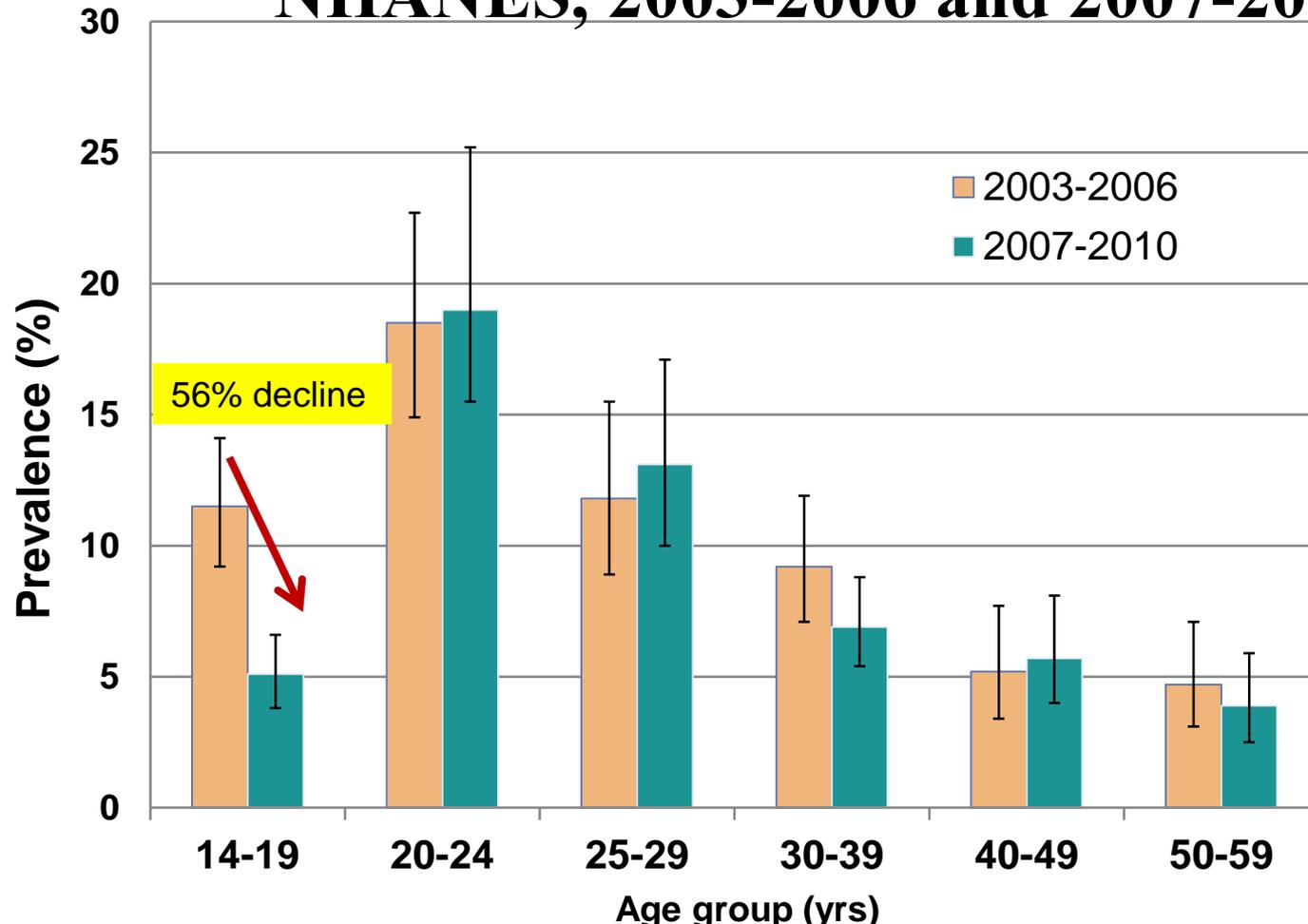
HPV16/18-related Prevalence in Precancerous Cervical Lesions

- **United States**
 - Sentinel HPV-IMPACT national data 2008-2011
 - CIN grade 2 or 3 and adenocarcinoma in situ (AIS)
 - Examined vaccination status in women diagnosed with CIN 2+ and examined HPV vaccine impact on HPV 16/18 related CIN 2+
- **Conclusion: Decreased high-grade cervical lesions in women vaccinated at least 24 months prior to abnormal Pap**

Reduction in HPV Prevalence Among Young Women, NHANES, 2003-2010

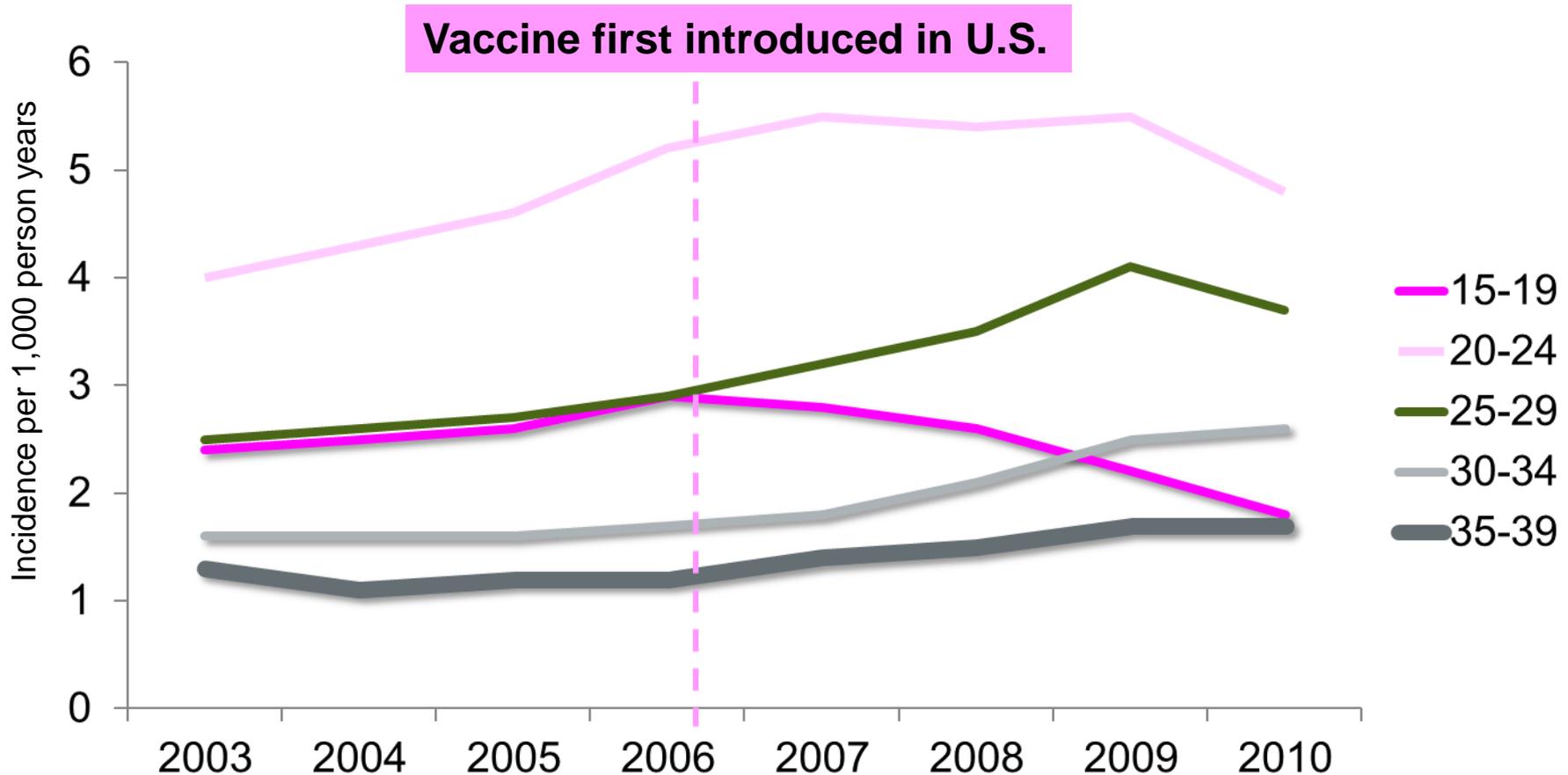
- Compared HPV prevalence data from the vaccine era (2007-2010) and the prevaccine era (2003-2006)
- Cervicovaginal swab samples from females aged 14-19 years
- Vaccine type HPV prevalence (HPV 6, 11, 16, or 18) in 2003-2006 (pre-vaccine) compared to 2007-2010 (vaccine era) by age groups

Prevalence of HPV 6, 11, 16, 18* in cervicovaginal swabs, by age group NHANES, 2003-2006 and 2007-2010



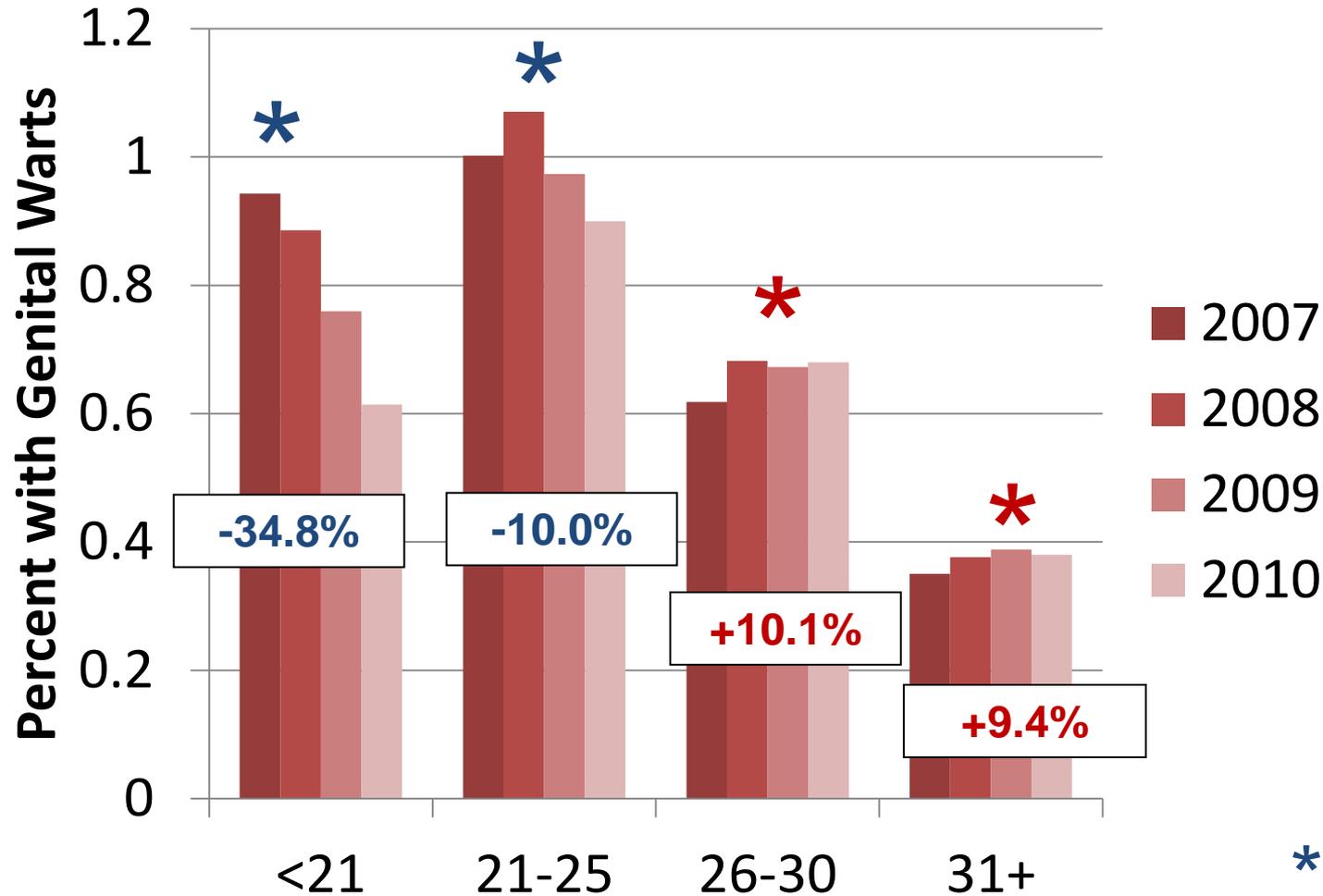
Markowitz, et al. JID 2103 *weighted prevalence

Genital warts, females 2003-2010, U.S. MarketScan® Database



Flagg EW, AJPH 2013

Genital warts among females by age group, CA Family PACT 2007-2010



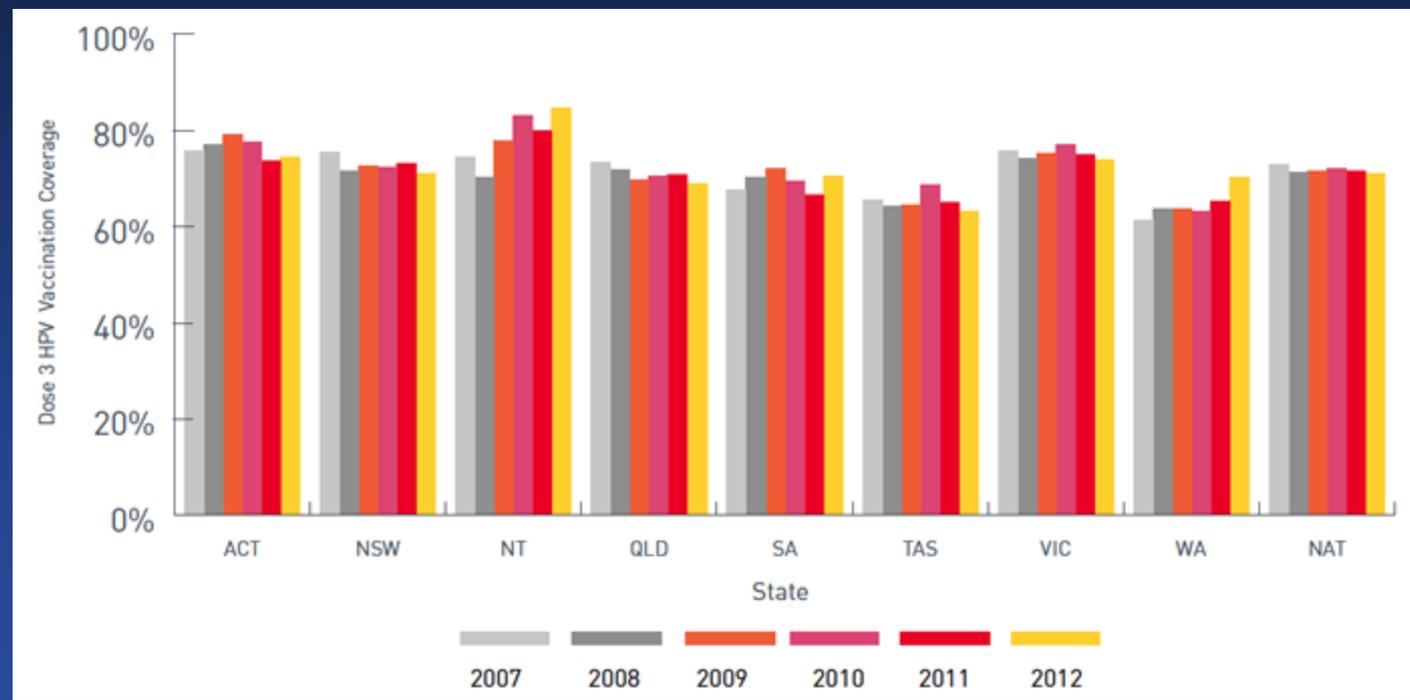
Evidence from Other Countries

Australia's HPV Immunization Program



- Introduced a national quadrivalent HPV vaccine (Gardasil) program for young women in mid-2007
 - Free vaccine to 12-13 year old girls with catch-up program for women up to 26 years from 2007 to 2009
 - High vaccination rates: >80% coverage for the first dose and ~70% for the 3 dose series in 12-17 year old girls. First dose HPV vaccination rates of 64% for women 18-19 years and 52% for 20-26 years.
 - Males ages 12-13 years targeted starting February 2013 with catch-up for males 14-15 years old until the end of 2014.

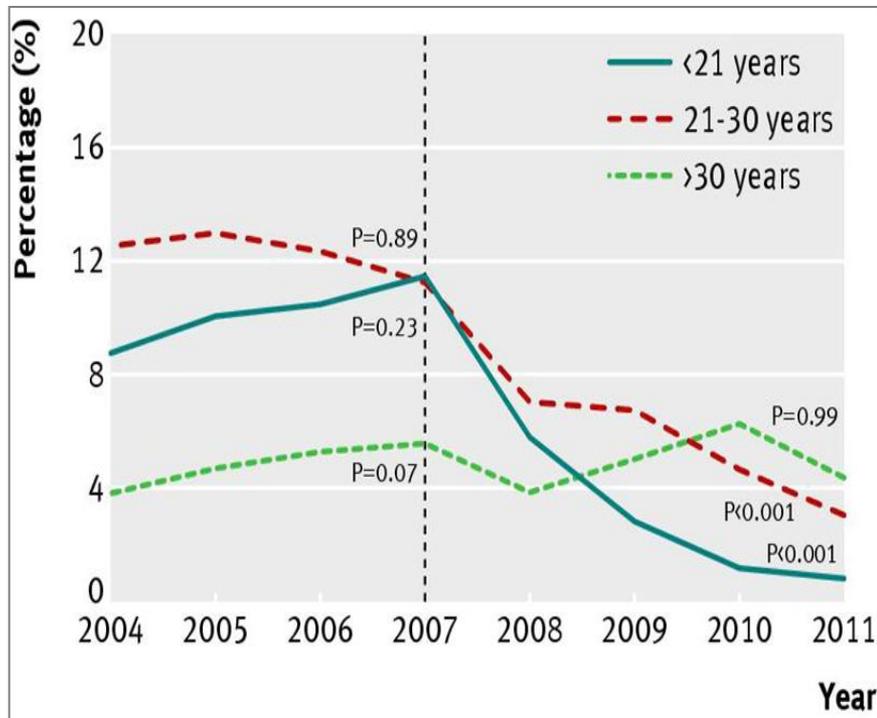
National (Australia) HPV 3 dose vaccination coverage for all females turning 15 years of age, 2007 - 2012



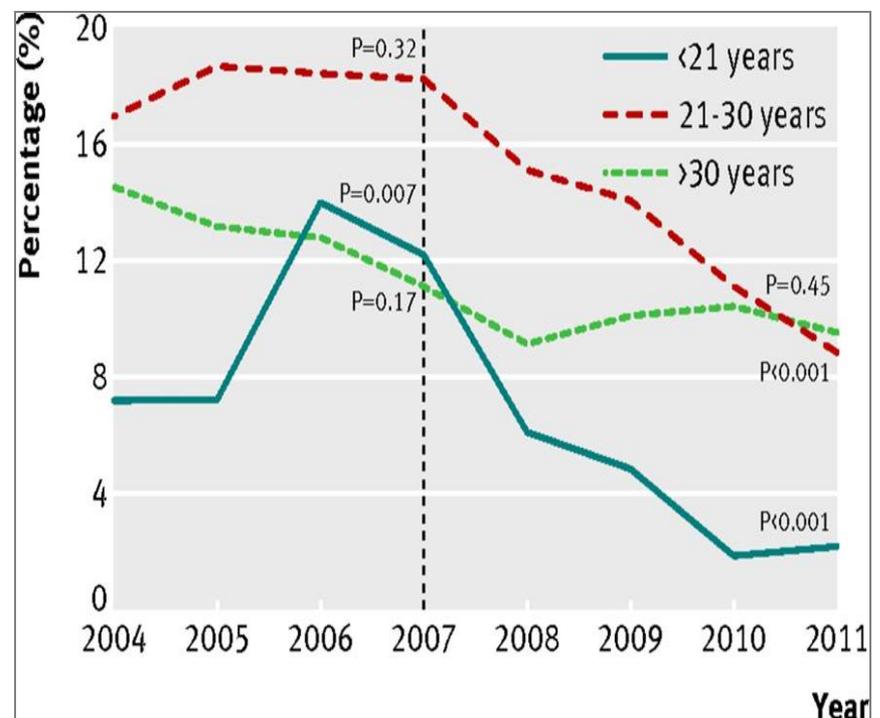
Impact of HPV vaccination in Australia

Proportion of Australian born females and males diagnosed as having genital warts at first visit, by age group, 2004-11

Females



Males



Ali, et al. BMJ 2013

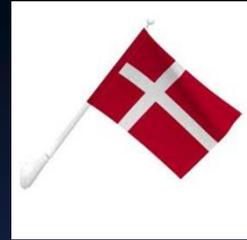
Australian Studies on HPV Vaccine

Early Impact on Cervical Abnormalities

- **Analyses from national cervical smear and vaccination registries (Victoria and Queensland)**
 - Assessed women with first cervical Pap smears between 2007 and 2011 and were eligible for the school-based vaccination program (younger 17 years-Victoria) or free vaccination (12 – 26 years-Queensland) in 2007
- **Conclusions:**
 - Decreased risk cervical lesions among vaccinated
 - Greatest effectiveness among younger women
 - Vaccine seemed more effective for preventing high grade lesions

Gertig BMC Med 2013;11:227.

Crowe BMJ 2014;348:g1458.



Denmark's HPV Vaccination Program

- **Denmark introduced quadrivalent HPV vaccine for 12 year old girls in Jan 2009 with catch-up program for 13-15 year old girls in October 2008**
 - Latest data: 90% receiving first dose and ~80% receiving all 3 doses
- **Catch-up to 27 years in August 2012**
 - Latest data: 61% receiving first dose and 18% receiving all 3 doses.

Baldur-Felskov et al. Cancer Causes Control 2014; 25:915-922.

Danish Studies on HPV Vaccine Impact

- **National Pathology Data Bank (2000-2013)**
- **Incidence of atypia or worse and CIN2+increased in all age groups* in 2000-2010.**
- **After introduction of the vaccination program the incidence of atypia+ decreased significantly in women younger than 18 years and in 18-20 year old women. The incidence of CIN2+ also decreased significantly in 18-20 year old women in 2010-13 but no significant decrease seen in older age groups.**

*12-17 years, 18-20 years, 21-23 years, 24-30 years, 31-64 years, 65 years +

Baldur-Felskov et al. Cancer Causes Control 2014; 25:915-922.

ACCELERATING HPV VACCINE UPTAKE: URGENCY FOR ACTION TO PREVENT CANCER

HPV Vaccine Three-Dose Coverage Among Girls in High-Income Countries



Note: National data on HPV vaccine coverage in Canada are not available. However, **Canadian provinces report three-dose coverage among target age groups between 50 and 85 percent.**

http://deainfo.nci.nih.gov/advisory/pcp/annualReports/HPV/Part4.htm#figure_10

Increasing Coverage Challenging: Efforts Identified

- Education of parents, providers, and patients
- Increasing the consistency and strength of the HPV vaccination recommendation by providers
- Eliminating missed opportunities for vaccination

Estimated vaccination coverage among 13-15 year olds,³⁸ National Immunization Survey-Teen, U.S. and California, 2008-2013

Year	Females		Males
	≥1 HPV	≥3 HPV	≥1 HPV
	% (95%CI)	%(95%CI)	% (95%CI)
U.S. 2013	54.9(±2.4)	32.7(±2.4)	34.9(±2.5)
HP 2020 Objective	-	80.0	-
CA 2008	45.5(±13.5)	16.6(±8.6)	NA
CA 2009	41.7(±10.9)	15.4(±6.6)	NA
CA 2010	56.1(±11.6)	29.0(±9.8)	NA
CA 2011	57.4(±9.1)	37.8(±9.3)	15.0(±6.5)
CA 2012	60.8(±10.2)	27.5(±9.4)	27.7(±8.7)
CA 2013	74.1(±11.6)	49.2(±13.6)	57.6(±11.3)

There is no Healthy People 2020 objective for receipt of ≥1 dose of HPV.

Top five reasons for not vaccination adolescents with HPV Vaccine—NIS-Teen, 2013

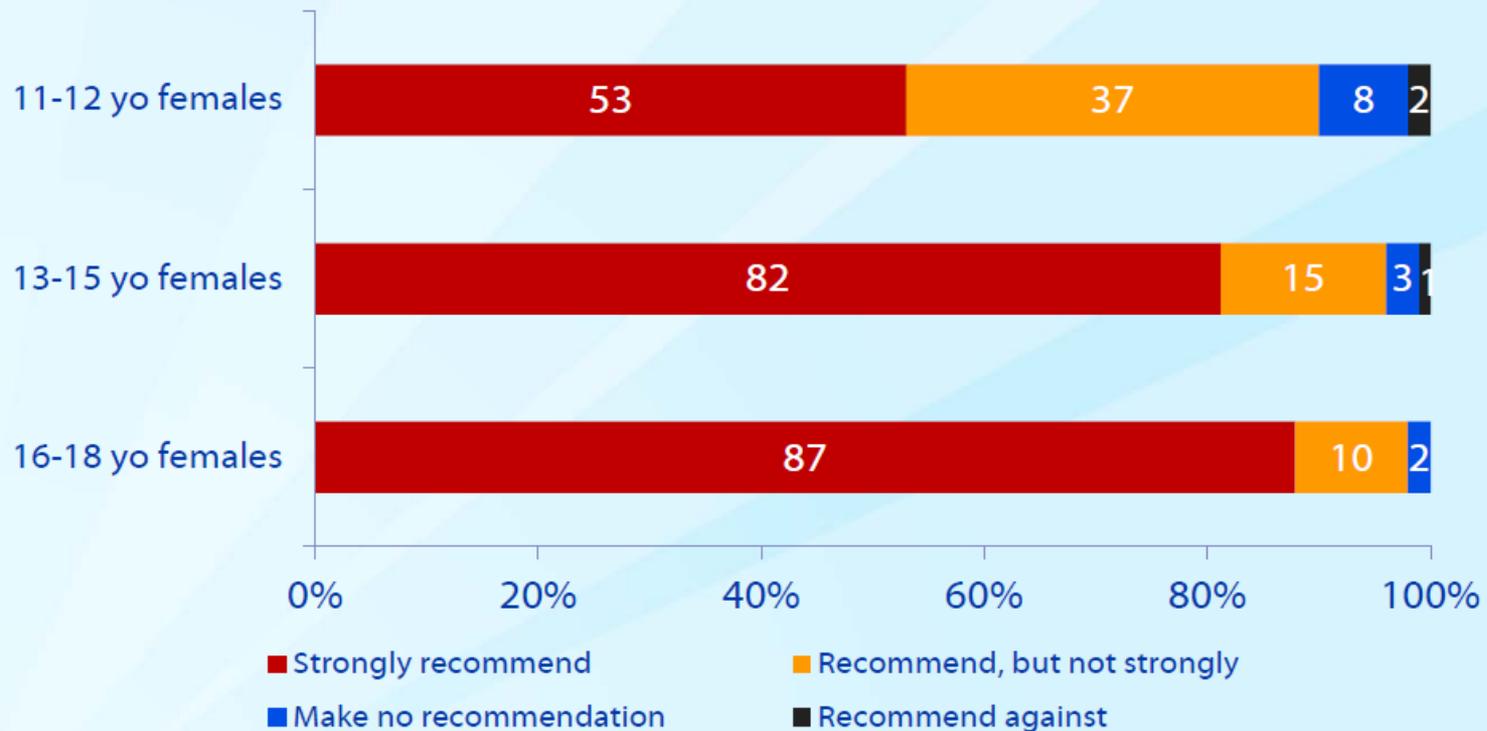
- **Parents of Girls:**
 - Lack of knowledge (15.5%)
 - Not needed or not necessary (14.7%)
 - Safety concerns/side effects (14.2%)
 - Not recommended (13.0%)
 - Not sexually active (11.3%)
- **Parents of Boys:**
 - Not recommended (22.8%)
 - Not needed or necessary (17.9%)
 - Lack of knowledge (15.5%)
 - Not sexually active (7.7%)
 - Safety concerns/side effects (6.9%)

Missed Opportunities

- **Missed opportunity**=a health care encounter occurring on or after the 11th birthday and before the 13th birthday during which the adolescent received at least one vaccine but did not receive the first dose of HPV vaccine.
- If missed opportunities for HPV vaccination had been eliminated for the 2000 birth cohort, vaccination coverage with 1 or more doses could have reached 91.3% (95% CI: 87.9-93.8) by age 13 years

MMWR, 2014. 63(29)620-624

Current Strength of Recommendation in Females, Pediatricians and Family Physicians (N=609)*



Allison et al. Academic Pediatrics. 2013;13:466-74.

HPV Vaccine Communications During the Healthcare Encounter

- ❑ HPV vaccine is often presented as 'optional' whereas other adolescent vaccines are recommended
- ❑ Some expressed mixed or negative opinions about the 'new vaccine' and concerns over safety/efficacy
- ❑ When parents expressed reluctance, providers were hesitant to engage in discussion
- ❑ Some providers shared parents' views that teen was not at risk for HPV and could delay vaccination until older

Goff S et al. Vaccine 2011;10:7343-9

Hughes C et al. BMC Pediatrics 2011;11:74

What are the key messages for providers?

Key Messages

- **HPV vaccine is safe and effective!**
- **Clear, strong recommendation by the provider**
- **HPV vaccine series at ages 11-12 years for girls and boys...don't wait!**
- **Avoid missed opportunities**
 - Give HPV vaccine along with other recommended vaccines (and the required Tdap vaccine for 7th grade entry)
- **Follow-up for completion of series**

Acknowledgements

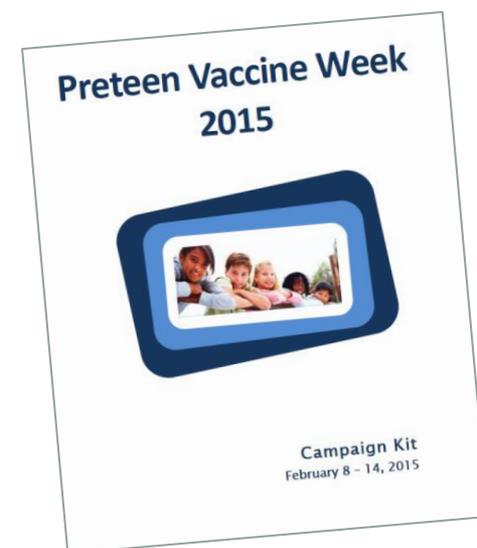
- **CDPH Immunization Branch**
 - Janice Louie, MD, MPH
 - Rob Schechter, MD
 - Jane Pezua, MPH
- **CDPH STD Control Branch**
 - Ina Park, MD
 - Erin Murray, MPH
- **ACIP and Mark Sawyer, MD**

Questions?

PVW 2015 CAMPAIGN KIT

Campaign Kit

- Talking Points
 - Human Papillomavirus
 - Tetanus, Diphtheria and Whooping Cough
- Matte Article for Physician Newsletter
- Social Media Messages
 - #PreteenVax
- Suggested Activities



Suggested Activities

- Electronic media
 - Updating website
 - Social media messages
- Print media
- Radio
- Collaboration with schools

HPV Vax Increases of Up to 15% IL, MS, NM, SC

- Physician HPV vaccination training
- Provider assessment and feedback visits
- Physician in-service visits
- Launching a radio campaign

Source: CDC. (July 23, 2014). Press Briefing Transcript: CDC Telebriefing on National Immunization Survey- Teen results and HPV vaccination coverage among adolescents.

BITLY / BIT.DO

URL Shortener Demo

URL shorteners

- Allow you to take long URLs (web addresses) and shorten them
 - Twitter has 140 character limit
 - With a shorter URL, you have more room for content!
 - When you shorten your links into **bit.ly** / **bit.do** URLs, **bit.ly** / **bit.do** give you metrics
 - How many clicks are your links getting?

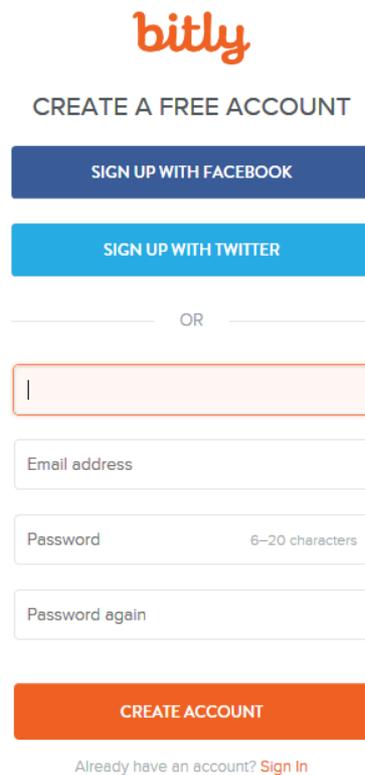
<http://bit.do/PVWCampaignKit>

vs.

<http://www.cdph.ca.gov/programs/immunize/Pages/PreteenVaccineWeek.aspx>

How to use bit.ly

- Create an account at <https://bit.ly.com/>



The image shows the Bitly account creation interface. At the top is the Bitly logo in orange. Below it is the heading "CREATE A FREE ACCOUNT". There are two buttons for social media sign-up: "SIGN UP WITH FACEBOOK" (dark blue) and "SIGN UP WITH TWITTER" (light blue). Below these is a horizontal line with "OR" in the center. The form consists of several input fields: a name field (orange border), an "Email address" field, a "Password" field with a "6-20 characters" requirement, and a "Password again" field. At the bottom is a large orange "CREATE ACCOUNT" button. Below the button is a link: "Already have an account? [Sign In](#)".

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OR

|

Email address

Password 6-20 characters

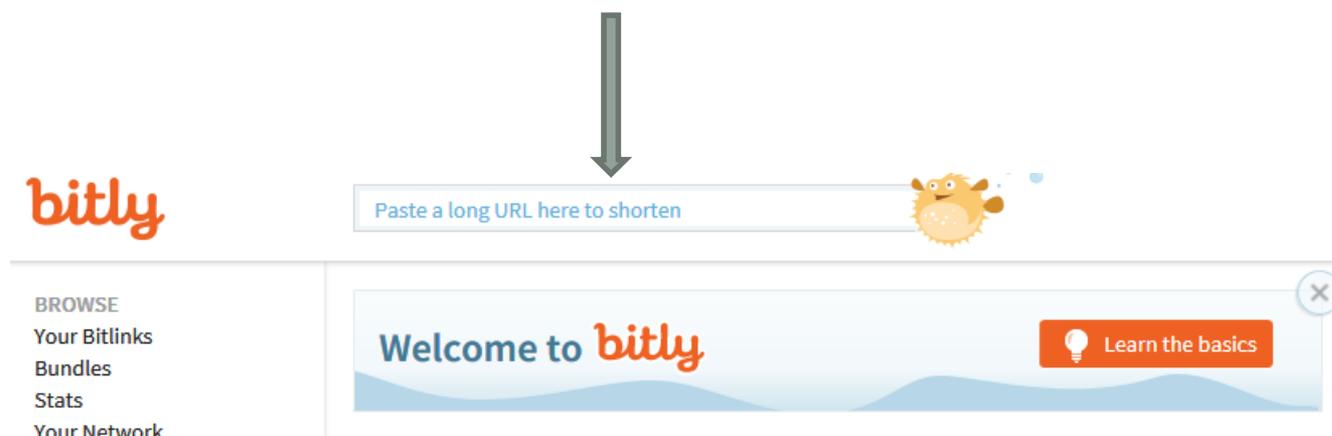
Password again

CREATE ACCOUNT

Already have an account? [Sign In](#)

How to use bit.ly

- When you login to your account, you'll see this page



- Click on the field where the arrow is and place any URL that you would like to shorten in
 - Example:
http://eziz.org/assets/docs/cdphmemo_2014_6_Pertussis_CDPH_Partners.pdf

How to use bit.ly

- Once you hit “Enter”, bit.ly takes the URL and shortens it
- Click on the shortened link, and copy it



- You can post the shortened link from bit.ly and post it to your social networking site along with the description of the post



Tracking Your Links

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Paste a long URL here to shorten



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eziz.org/assets/docs/cdphmemo_2014_6_Pertussis_CDPH_Partners.pdf

http://eziz.org/assets/docs/cdphmemo_2014_6_Pertussis_CDPH_Partners.pdf

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Tracking Statistics

- Track individual clicks
 - Date, hour and user's IP address
- How do you track your link?
 - Add a “-” after your personalized link to view stats
- EXAMPLE:

<http://bit.do/PVWCampaignKit->

Access statistics for <http://bit.do/PVWCampaignKit>
Title: PreteenVaccineWeek
Redirect to: <http://www.cdph.ca.gov/programs/immunize/Pages/PreteenVaccineWeek.aspx>

Views (redirects): **43** clicks (**43** desktop clicks + **0** mobile clicks)
 Distinct users: **27** (distinct IP addresses)
 Distinct referrer sites: **2** domains
 Distinct referrer pages: **2**
 Stats views (this page): **16**
 Short url creation date: 2014-10-13 15:14:12
 Compression rate: From 70 characters to 28 characters: **60%** (42 characters) shorter!
 QR Code:  [enlarge](#)

Referrer sites:

Referrer site	Access times
(direct access)	42
bit.do	1

Referrer pages:

Referrer (click from)	Access times
(direct access)	42
http://bit.do/PVWCampaignKit	1

Details of each access:
 Export data: Download in [CSV](#) or [Excel \(.xlsx\)](#) format. **(NEW: Download data as an Excel file is now working!)**

Referrer (click from)	User's IP	Country/City	Access Date
(direct access)	158.96.4.13	United States (Sacramento, California)	2014-10-20 14:52:27
(direct access)	209.78.56.72	United States (Napa, California)	2014-10-17 13:27:27

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- Need an account to view statistics
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 - All time, hour, 24 hours, 7 days, 14 weeks, and 30 days
- Can track clicks on social networking sites

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- Do not need an account to view statistics
- Tracks statistics by:
 - Date, hour, and user IP address, whether accessed through a mobile platform
- Can download reports as Excel files
- Can track clicks on social networking sites

Questions? Comments? Concerns?

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 - <http://support.bitly.com/knowledgebase>
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NEXT CALL!

Wednesday, November 12
11:00 AM – 12:00 PM