

# Progress Update: Programmatic Strategies to Increase HPV Vaccination Coverage among U.S. Adolescents

C. Robinette Curtis, MD, MPH

Medical Officer, Immunization Services Division, NCIRD

Advisory Committee on Immunization Practices Meeting

October 21, 2015

# Presentation Outline

- **Background:**
  - **ISD strategies to increase HPV vaccination coverage**
  - **PPHF HPV Immunization Awardees**
- **What worked for public health jurisdictions with improvements in HPV vaccination coverage among females in 2014?**
- **Highlights of a selected initiative, late 2014–present**
- **Moving forward: Challenges and opportunities**

**Abbreviations:**

HPV=Human papillomavirus

PPHF=Prevention and Public Health Fund

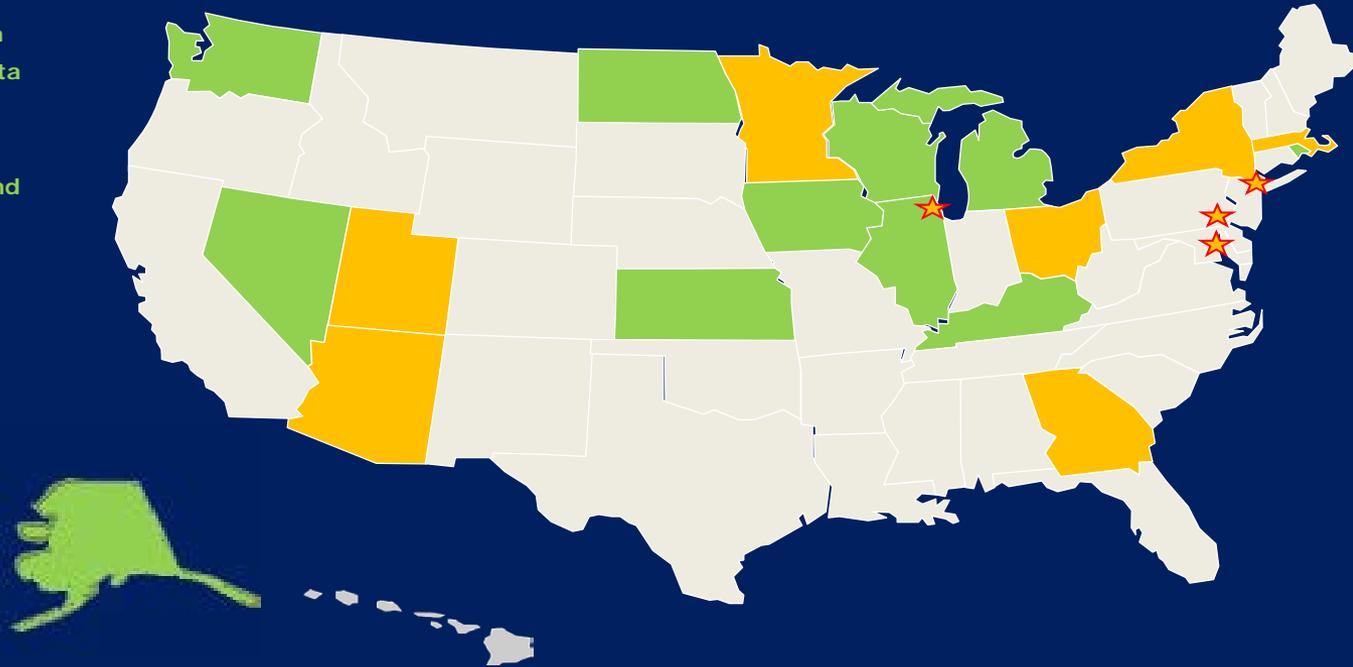
## **ISD Strategies to Increase HPV Vaccination Coverage**

- **Support state and local immunization programs**
- **Mobilize partners and stakeholders**
- **Strengthen provider commitment**
- **Improve and utilize systems**
- **Increase public awareness**

# 2013/2014 PPHF HPV Immunization Awardees

## 2014 Awardees

- Washington
- North Dakota
- Michigan
- Wisconsin
- Rhode Island
- Illinois
- Iowa
- Kentucky
- Kansas
- Nevada
- Alaska



## 2013 Awardees

- Minnesota
- Massachusetts
- New York
- New York City
- Philadelphia
- District of Columbia
- Ohio
- Chicago
- Georgia
- Utah
- Arizona

### Abbreviations:

PPHF = Prevention and Public Health Fund;  
HPV = Human papillomavirus

# **2013 and 2014 PPHF HPV Immunization Awardee Activities Specified in the Funding Opportunity Announcement (FOA)**

- **Developing a jurisdiction-wide joint initiative with immunization stakeholders**

**Abbreviations:**

PPHF = Prevention and Public Health Fund;

HPV = Human papillomavirus

# Stakeholders



# **2013 and 2014 PPHF HPV Immunization Awardee Activities Specified in the Funding Opportunity Announcement (FOA)**

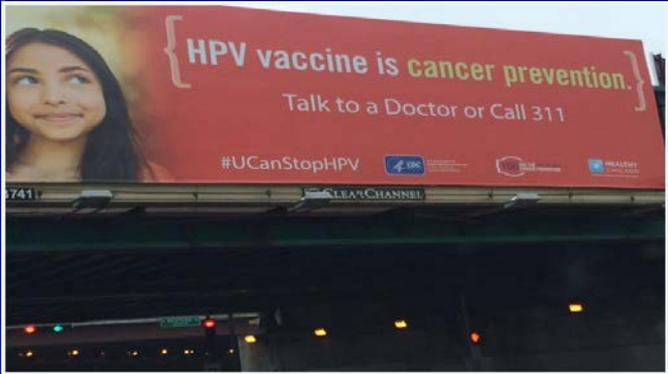
- **Developing a jurisdiction-wide joint initiative with immunization stakeholders**
- **Implementing a comprehensive communication campaign targeted to the public**

**Abbreviations:**

PPHF = Prevention and Public Health Fund;

HPV = Human papillomavirus

## Print and Outdoor Ads



## Radio and TV



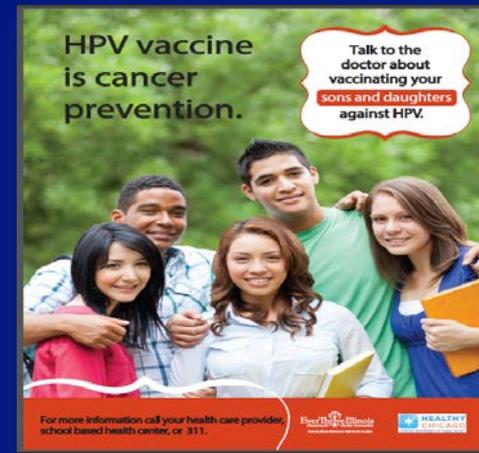
## School Outreach

## Social Media

#UCanStopHPV



facebook



*Slide courtesy of Maribel Chavez-Torres and the Chicago Department of Public Health; presented at PPHF HPV Immunization Reverse Site Visit, Atlanta, GA, 11/17/14.*

# **2013 and 2014 PPHF HPV Immunization Awardee Activities Specified in the Funding Opportunity Announcement (FOA)**

- **Developing a jurisdiction-wide joint initiative with immunization stakeholders**
- **Implementing a comprehensive communication campaign targeted to the public**
- **Implementing Immunization Information System (IIS)-based reminder / recall for adolescents aged 11–18 years**

**Abbreviations:**

PPHF = Prevention and Public Health Fund;

HPV = Human papillomavirus

# Postcards in Spanish for Planned Reminder / Recall Activity in the District of Columbia



*Image courtesy of Nancy E. Ejuma and the  
District of Columbia Department of Health*

# **2013 and 2014 PPHF HPV Immunization Awardee Activities Specified in the Funding Opportunity Announcement (FOA)**

- **Developing a jurisdiction-wide joint initiative with immunization stakeholders**
- **Implementing a comprehensive communication campaign targeted to the public**
- **Implementing Immunization Information System (IIS)-based reminder / recall for adolescents aged 11–18 years**
- **Using assessment and feedback to evaluate and improve the performance of immunization providers in administering the 3-dose HPV vaccine series consistent with current ACIP recommendations**

**Abbreviations:**

**PPHF = Prevention and Public Health Fund;**

**HPV = Human papillomavirus**

AFIX Home

About AFIX +

The Four Components

Program Policies & Procedures Guide +

Site Visit Questionnaire +

Awardee Resources

AFIX Quarterly Conference Calls

Contacts +



## Overview of AFIX

AFIX is a quality improvement program used by awardees to raise immunization coverage levels, reduce missed opportunities to vaccinate, and improve standards of practices at the provider level. The acronym for this four-part dynamic strategy stands for

1. **Assessment** of the healthcare provider's vaccination coverage levels and immunization practices.
2. **Feedback** of results to the provider along with recommended quality improvement strategies to improve processes, immunization practices, and coverage levels.
3. **Incentives** to recognize and reward improved performance.
4. **eXchange** of information with providers to follow up on their progress towards quality improvement in immunization services and improvement in immunization coverage levels.



More >

## Get Email Updates

To receive email updates about this page, enter your email address:

What's this?

Submit

## Related Links

[Vaccines & Immunizations](#)

[Preteens and Teens Still Need](#)

## Contacts



Find your city/state/territory AFIX contacts to consult regarding specific AFIX questions.

## Quick Vaccine Information Links

## What's New!

- Quarterly Conference Call Minutes  
March 26, 2015
- AFIX Policies and Procedures Guide
- AFIX Site Visit Questionnaire
- AFIX Site Visit Answer Guide

## Resources for Awardees

- AFIX Site Visit Answer Guide
- AFIX Logic Model (updated Nov 2013)

<http://www.cdc.gov/vaccines/programs/afix/index.html>

# 2013 and 2014 PPHF HPV Immunization Awardee Activities Specified in the Funding Opportunity Announcement (FOA)

- Developing a jurisdiction-wide joint initiative with immunization stakeholders
- Implementing a comprehensive communication campaign targeted to the public
- Implementing Immunization Information System (IIS)-based reminder / recall for adolescents aged 11–18 years
- Using assessment and feedback to evaluate and improve the performance of immunization providers in administering the 3-dose HPV vaccine series consistent with current ACIP recommendations
- **Implementing strategies targeted to immunization providers to:**
  - **Increase knowledge regarding: HPV-related diseases (including cancers), and HPV vaccination safety and effectiveness;**
  - **Improve skills needed to deliver strong, effective HPV vaccination recommendations;**
  - **Decrease missed opportunities for timely HPV vaccination and series completion;**
  - **Increase administration of HPV vaccine doses consistent with current ACIP recommendations.**

**Abbreviations:**

PPHF = Prevention and Public Health Fund;

HPV = Human papillomavirus

## MDH activities

- HPV PPHF grant
  - Stakeholders
  - Reminder/recall
  - Public awareness
  - **Provider education**
  - Assess. & feedback
- Adolescent PPHF grant
  - Assess. reports
- Evaluation
- Lessons Learned

## *Just Another Shot: Reframing the HPV Vaccine Conversation*

- Provider video on HPV vaccine recommendation
  - 3 humorous vignettes
  - 4 model encounters

[www.wevaxteens.org](http://www.wevaxteens.org)



*Slide courtesy of Lara Hilliard and the Minnesota Department of Health; presented at PPHF HPV Immunization Reverse Site Visit, Atlanta, GA, 11/17/14.*

## National, Regional, State, and Selected Local Area Vaccination Coverage Among Adolescents Aged 13–17 Years — United States, 2014

Sarah Reagan-Steiner, MD<sup>1</sup>; David Yankey, MS<sup>1</sup>; Jenny Jeyarajah, MS<sup>1</sup>; Laurie D. Elam-Evans, PhD<sup>1</sup>; James A. Singleton, PhD<sup>1</sup>; C. Robinette Curtis, MD<sup>1</sup>; Jessica MacNeil, MPH<sup>2</sup>; Lauri E. Markowitz, MD<sup>3</sup>; Shannon Stokley, MPH<sup>1</sup> (Author affiliations at end of text)

Routine immunization is recommended for adolescents aged 11–12 years by the Advisory Committee on Immunization Practices (ACIP) for protection against diseases including pertussis, meningococcal disease, and human papillomavirus (HPV)–associated cancers (*1*). To assess vaccination coverage among adolescents, CDC analyzed data collected regarding 20,827 adolescents through the 2014 National Immunization Survey–Teen (NIS-Teen).<sup>\*</sup> From 2013 to 2014, coverage among adolescents aged 13–17 years increased for all routinely

Coverage differed by state and local area. Despite overall progress in vaccination coverage among adolescents, HPV vaccination coverage continues to lag behind Tdap and MenACWY coverage at state and national levels. Seven public health jurisdictions achieved significant increases in  $\geq 1$ - or  $\geq 3$ -dose HPV vaccination coverage among females in 2014, demonstrating that substantial improvement in HPV vaccination coverage is feasible.

NIS-Teen monitors vaccination coverage among adolescents aged 13–17 years in the 50 states, District of Columbia (DC),

## States and Local Areas with Increases\* in HPV Vaccination Coverage among Females Aged 13–17 Years, NIS-Teen, 2014

	≥1 HPV Dose		≥3 HPV Doses	
	Estimate (95% CI)	Percentage point increase	Estimate (95% CI)	Percentage point increase
Dist. of Columbia**	75.2(±9.4)	22.8	56.9(±10.9)†	28.6
Georgia**	--	--	47.1(±9.7)	14.5
Illinois††	64.4(±6.5)	13.2	47.7(±6.9)	15.4
Illinois-Chicago**	78.1(±8.1)	20.5	52.6(±10.7)†	16.1
Montana	57.2(±9.2)	13.8	42.9(±9.1)	16.0
North Carolina	71.1(±8.1)	13.9	54.0(±9.2)	22.3
Utah**	59.2(±8.3)	17.7	--	--

\* Statistically significant difference from 2013 (Revised) estimates ( $p < 0.05$ ).

\*\* Received 2013 Prevention and Public Health Fund (PPHF) awards to increase HPV vaccination coverage.

† Estimates with confidence interval (CI) half-widths >10 may not be reliable.

†† Received 2014 PPHF award to increase HPV vaccination coverage.

# Varied Combinations of Interventions Identified as Important by 6 of 7 Jurisdictions

## Activities Specified in PPHF FOA:

- Joint initiatives with cancer prevention and immunization stakeholders
- Public communication campaigns
- IIS-based reminder/recall
- Assessment and feedback
  - Conducting consistent with federal AFIX guidance
  - Ensuring clinical practice decision makers participate
  - Including clinician-to-clinician educational component
- Provider and practice-focused strategies aimed at improving HPV vaccination administration consistent with ACIP recommendations

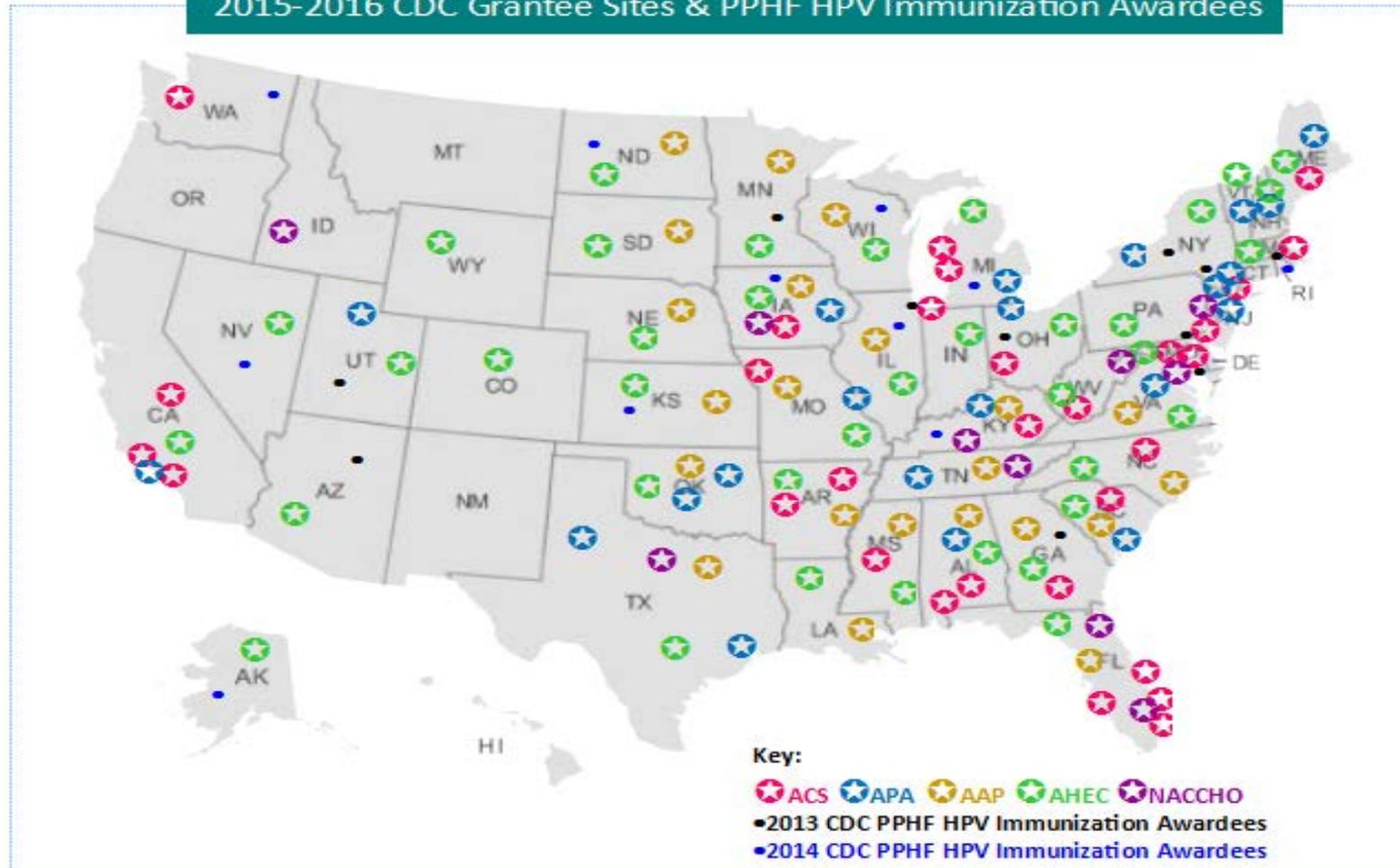
## Other Activities:

- Using all opportunities to educate parents and clinicians about importance of routine HPV vaccination at ages 11-12 years
- Incorporating HPV vaccination into cancer control plans

## **Partnership Cooperative Agreements Focused on Increasing HPV Vaccination**

- **Initially funded in late 2014**
- **Funding time horizons vary**
- **Multiple national partners:**
  - American Academy of Pediatrics (AAP)
  - American Cancer Society (ACS)
  - Academic Pediatric Association (APA)
  - National Area Health Education Center Organization (NAO)
  - National Association of County and City Health Officials (NACCHO)

## 2015-2016 CDC Grantee Sites & PPHF HPV Immunization Awardees



*Image courtesy of the American Cancer Society*

# **Moving Forward: Challenges and Opportunities**

- **Evolving recommendations and related issues**
  - **Can make programmatic planning/execution difficult**
  - **Might decrease interventions' impacts**
- **Evaluating impacts challenging**
  - **Increases in immunization coverage hard to achieve in short time horizons**
  - **Other process / outcome measures possibly difficult to interpret**
  - **Impact of interventions promoting adherence to routine recommendations at age 11-12 years not measurable by 2014 NIS-Teen**
- **Dealing with issues/competing demands:**
  - **Public health responses**
  - **Staffing challenges – turnover; recruitment; contract delays**
  - **Infrastructure and capacity challenges**
- **Leveraging other cooperative agreements**
- **Collaborating across CDC, within HHS, and with other partners**

# **Moving Forward: Challenges and Opportunities**

**Generalizable, promising practices to increase HPV vaccination coverage include:**

- Leveraging opportunities for partnership engagement and collaboration**
- Conducting AFIX visits consistent with federal guidance and, when feasible, enhanced by clinician-to-clinician education**
- Incorporating HPV vaccination into cancer control plans**
- Using all opportunities to educate parents and clinicians about importance of routine HPV vaccination at ages 11-12 years**

# Acknowledgments

- **State of Alaska Department of Health and Social Services**
- **Arizona Department of Health Services**
- **Chicago Department of Public Health**
- **District of Columbia Department of Health**
- **Illinois Department of Public Health**
- **Iowa Department of Public Health**
- **Georgia Department of Public Health**
- **Kansas Department of Health and Environment**
- **Kentucky Department for Public Health**
- **Massachusetts Department of Public Health**
- **Michigan Department of Health & Human Services**
- **Minnesota Department of Health**
- **Montana Department of Public Health and Human Services**
- **Nevada Division of Public and Behavioral Health**
- **The New York City Department of Health and Mental Hygiene**
- **New York State Department of Health**
- **North Carolina Department of Health and Human Services**
- **North Dakota Department of Health**
- **Ohio Department of Health**
- **Philadelphia Department of Public Health**
- **Rhode Island Department of Health**
- **Utah Department of Health**
- **Washington State Department of Health**
- **Wisconsin Department of Health Services**

# Acknowledgments

- **Partnership Organizations, including:**
  - **American Academy of Pediatrics (AAP)**
  - **American Cancer Society (ACS)**
  - **Academic Pediatric Association (APA)**
  - **National Area Health Education Center Organization (NAO)**
  - **National Association of County and City Health Officials (NACCHO)**
- **CDC**
  - **Office of the Director**
  - **Office of Infectious Diseases**
    - **National Center for Immunization and Respiratory Diseases**
    - **National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention**
    - **National Center for Emerging and Zoonotic Infectious Diseases**
  - **Office of Noncommunicable Diseases, Injury, and Environmental Health**
    - **National Center for Chronic Disease Prevention and Health Promotion**

**Thank You!**  
**Email: [rcurtis@cdc.gov](mailto:rcurtis@cdc.gov)**

**For more information please contact Centers for Disease Control and Prevention**

1600 Clifton Road NE, Atlanta, GA 30333

Telephone: 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348

E-mail: [cdcinfo@cdc.gov](mailto:cdcinfo@cdc.gov) Web: <http://www.cdc.gov>

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.