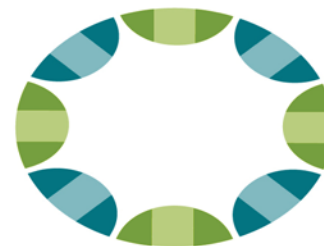# Issues with EHR and IIS in HPV Vaccination
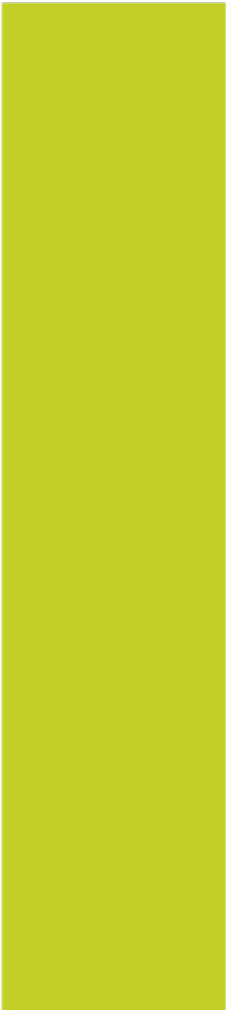
AIRA 2017

Who Are We?

The National HPV Vaccination Roundtable is a national coalition of >70 organizations working together to prevent HPV-associated cancers and pre-cancers by increasing and sustaining HPV vaccination in the USA.

http://bit.ly/HPVRoundtable

Long-term Outcomes:

- Increase frequency and strength of clinician recommendation
- Decrease missed opportunities
- Increase HPV vaccination rates

Priority Areas:

- Providers
- Parents
- Systems
- Policies
- Health disparities

HPV Vaccination can **prevent** an estimated 28,500 new **cancers** per year.

That's more than the average attendance at one of the largest pop concert tours of last year.

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention
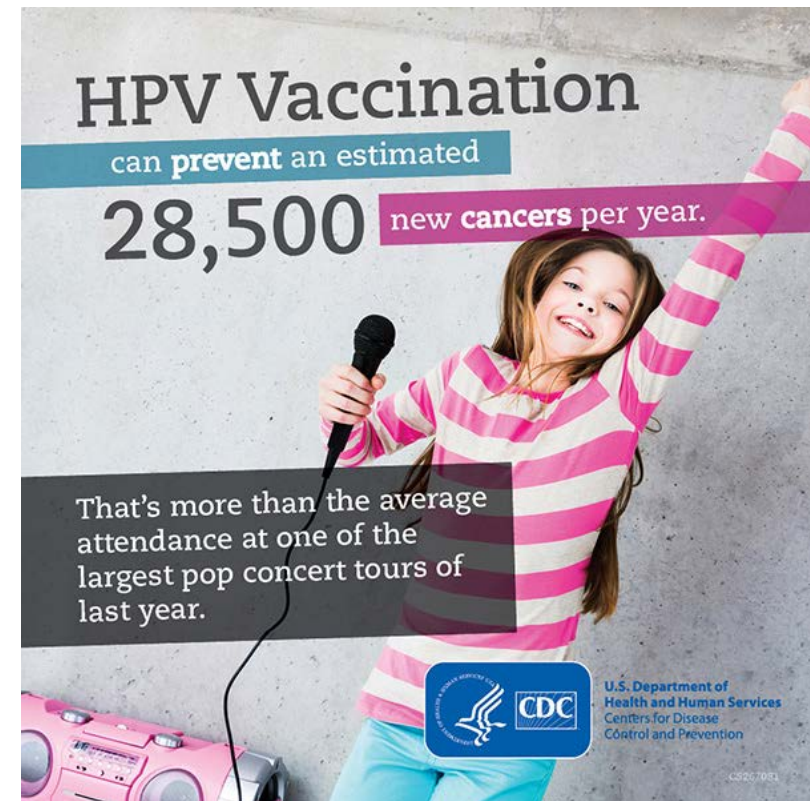
Task Groups

- Best Practices
- Communications
- Electronic Health Records/IIS
- Empowering Parents & Allies
- Provider Training
- State-based Coalitions & Roundtables

Retired:
- Pharmacy-located Vaccination
- Survivor Involvement

EHR/IIS Task Group:

Use literature review and key informant interviews to uncover:

1. How EHR and IIS facilitate or impede complete HPV vaccination **from a provider perspective**

2. How clinic flow encourages or discourages **effective use of technology** in the HPV vaccination process

Literature Review:

- Little published on the exact topic

- What is published:

    - ❖ Clinical processes

    - ❖ Provider reminders/recall

- Gray literature more substantial

Findings:
Qualitative Assessment Report

Examining Health Care Professionals' Views on Using Electronic Health Records and Immunization Information Systems to Increase HPV Vaccination

A Project of the National HPV Vaccination Roundtable

Sampling & Recruitment:

- 44 key informant interviews
- Recruitment:
  - Professional associations
  - Referrals from task group members
  - Personal contacts
  - Snowball
- Electronic eligibility screening tool

Range of Agency* Types:

Agency Type	#	%
FQHC	10	23
Public health immunization program	10	23
Private practice	6	14
University health center or hospital	5	11
Pharmacy	3	7
School-based health center	2	5
Tribal clinic	2	5
Community health center, non-FQHC	1	2
Field expert	5	11

Respondent Profile:

▶ Leaders in using EHR/IIS to improve delivery of HPV vaccine

Professional Role*	#	%
Medical practitioner	31	70
Administrator	25	58
Technical staff	6	14
Field expert	5	12

▶ 48% of respondents had multiple roles

Service Profile:

Low income clients	93%
Racial and ethnic minorities	86%
Children under age 18	83%
LGBT clients	66%
Women	62%
Individuals with special healthcare needs	55%
Residents of rural areas	41%
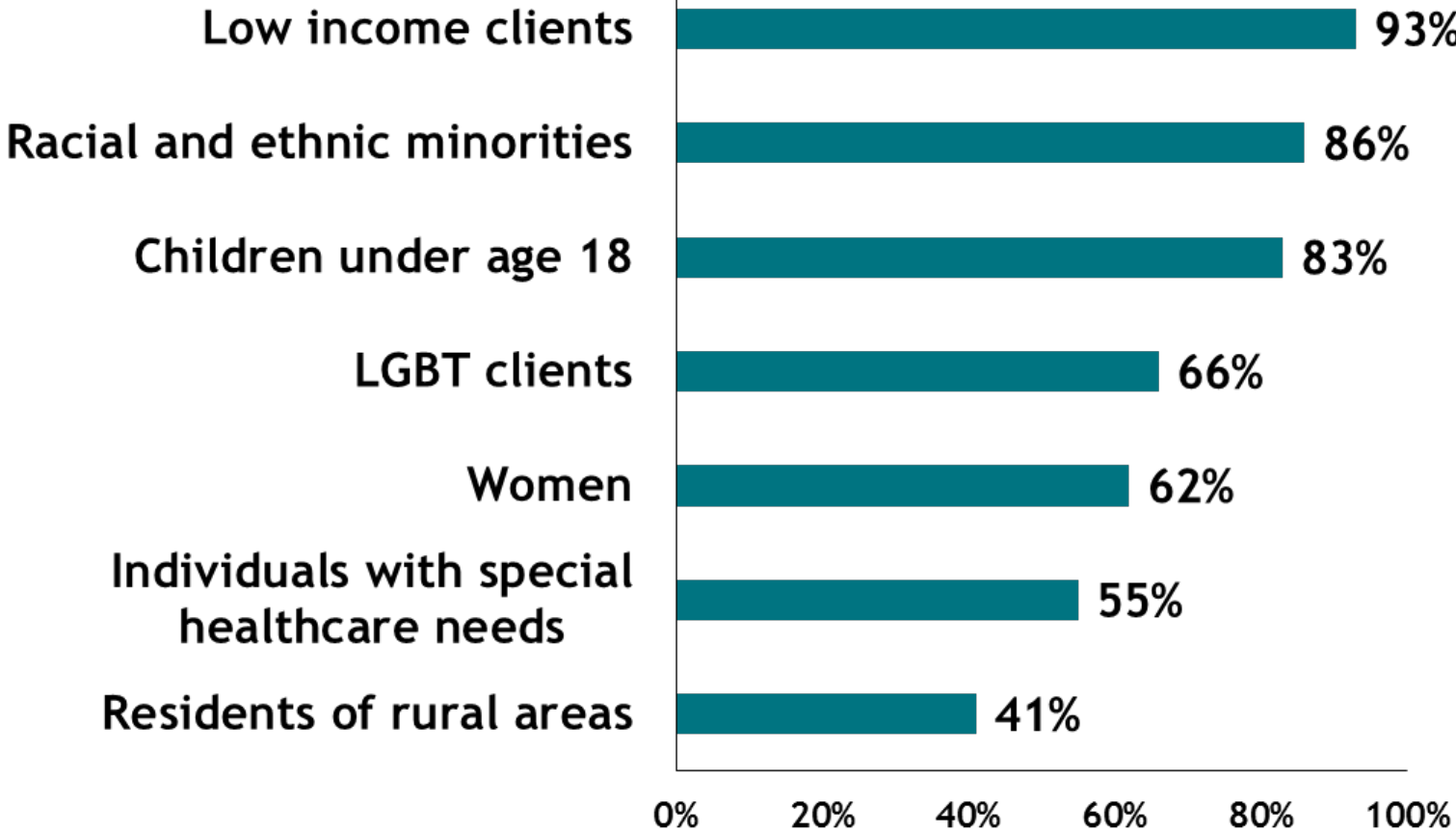
Range of EHR Systems Used:

EHR vendor	#	%
Epic	10	23
eClinicalWorks	7	16
AllScripts	5	11
NextGen	4	9
Insight	3	7
RPMS (IHS)	3	7
SuccessEHS	2	5
Powerchart (Cerner)	2	5
Practice Fusion	2	5
Athena	1	2
Cattails	1	2
Centricity	1	2
Homegrown EHR	2	5
Multiple systems	1	2

▶ Epic was the most common (23%)

▶ No clear patterns in terms of EHR vendor by Health Service Region

▶ Respondents also use 20 unique IIS

Associating Activities & Outcomes:

HIGH (N=3)
- High coverage (series initiation >80%), and
- Multi-pronged QI approach

MODERATE (N=15)
- Low coverage, but multiple QI efforts, or
- Moderate-to-high coverage, but minimal QI

LOW (N=7)
- Low coverage (<40-50% initiation), and
- Minimal or no QI

PERFORMANCE LEVEL
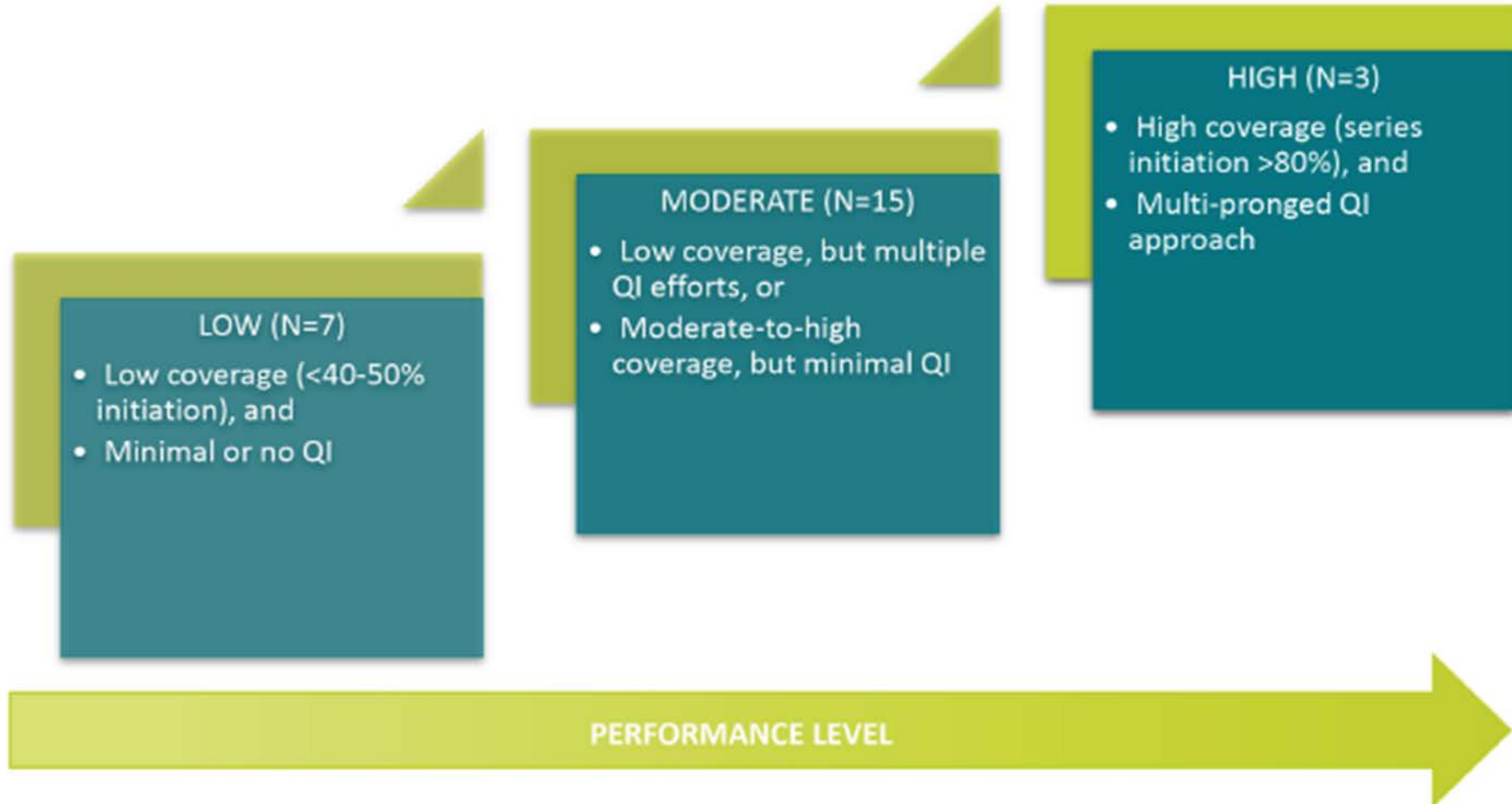
Identified Challenges:

▶ Unidirectional interface

▶ Few interoperable systems (bidirectional)

▶ Vaccination histories depend on:

    ▶ Checking the IIS

    ▶ Patient report

The Importance of Interoperability

...we look at the registry and print out the records. That's how we can see if somebody received the vaccines elsewhere.... Otherwise, we just rely on patients bringing in their medical records.

-Provider/administrator at an urban FQHC

Diverse Decision Supports:

▶ Most have tools

▶ Structure and utility of these tools varied widely

▶ Manual activation may be required

▶ Some lacked system to track administration and/or series completion

Clinical Decision Supports: Help or Hindrance?

You can do pop-ups, but what we've found is, if you decide to do a pop-up, it pops up at every single screen, so it becomes more of a hindrance and annoyance that you click it out every single time... You're more concentrating on getting rid of the notification than you are of actually doing it.

–Provider/ administrator at an urban public health department

Strategies to Improve Rates

▶ Strategies:

   ▶ Using data for quality improvement

   ▶ Educating providers

   ▶ Using patient recalls and reminders

   ▶ Patient education

▶ Grants and research partnerships are needed to implement improvement initiatives

Barriers to Initiation & Completion

- ▶ EHR and IIS limitations make it challenging to track progress
  - ▶ Mismatched records
  - ▶ Data lag times
  - ▶ Unsupportive reminder tools
  - ▶ Labor-intensive systems and processes
- ▶ Parental vaccine hesitancy
- ▶ Cost is a barrier for some

Recommendations:

1. Data Systems Changes

▶ Improve EHR usability

▶ Support interoperability between EHR and IIS

▶ Support interstate data exchange

Recommendations:

2. Practice Changes

- ▶ Promote HPV vaccination coverage
- ▶ Quality improvement strategies
- ▶ Multiple communication strategies with patients
- ▶ "No missed opportunity" approach
- ▶ Streamlined workflow
- ▶ Increase provider and staff understanding

Recommendations:

3. Systemic Change

- ▶ Reduce financial barriers
- ▶ Enhance data systems coordination

Recommendations:

4. Community Awareness and Access

- ▶ Continue to reframe the HPV vaccine through innovative marketing and patient education campaigns

Conclusions & Next Steps

Lessons learned:

- Providers are concerned about more than technology
- Tech/practice/policy are interrelated issues

Phase II:

- Further discovery & alignment with key players: CDC, AIRA, ONC, AAP, HIMSS
- Focused pilot to build on existing EHR/IIS efforts through the lens of HPV vaccination: TBD

Contact Us:

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