HPV Vaccination

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Disclosures

I have no actual or potential conflict of interest in relation to this presentation.

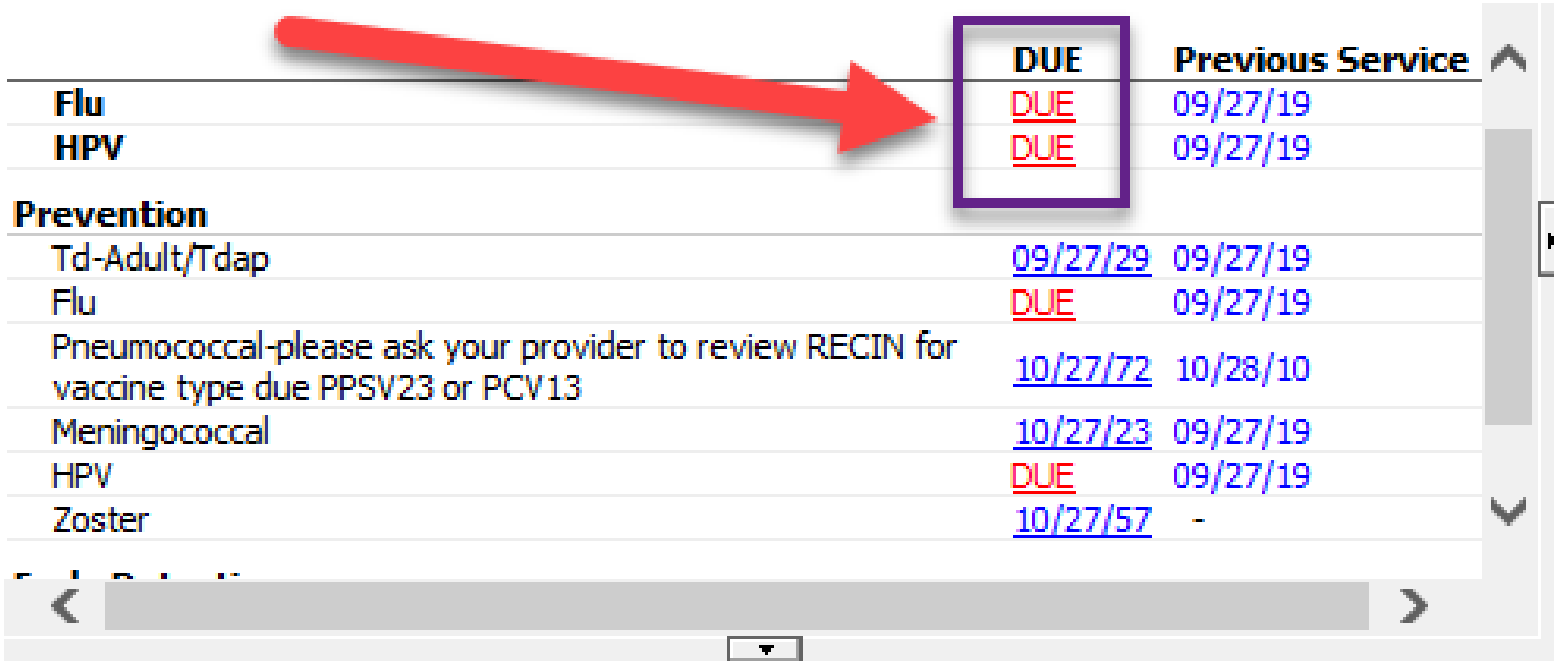
Current Practice

- RECIN – Registry for Effectively Communicating Immunization Needs
  - Includes decision support logic
  - Can document directly into RECIN
  - Reminder Letters (12th year – every other month)
  - Interfaces with WIR (Wisconsin Immunization Registry)

Family	#	Vaccine	Date Given
	2	RV5 RotaTeq	01/22/2009
	3	RV5 RotaTeq	03/19/2009
Pneumococcal	1	PCV7	11/19/2008
	2	PCV7	01/22/2009
	3	PCV7	03/19/2009
	4	PCV7	10/08/2009
	5	PCV13	09/23/2010
	6		Due 09/18/2073
HepA	1	HepA	10/08/2009
	2	HepA	09/23/2010
Td-Adult/Tdap	1	Tdap	10/22/2019
	2		Due 10/22/2029
Flu	1	IIV3 (Flu Split)	10/08/2009
	2	IIV3 (Flu Split)	12/15/2009
	3	IIV3 (Flu Split)	09/23/2010
	4	Flu-Mist(LAIV)	09/27/2011
	5	Flu-Mist(LAIV)	08/21/2012
	6	IIV3 (Flu Split)	12/02/2014
	7	IIV3 (Flu Split)	11/25/2015
	8	IIV3 (Flu Split)	10/14/2016
	9	IIV4 (FluSplitQuad)	02/05/2018
	10	Flucelvax(ccIIV4)	10/10/2018
	11	Flucelvax(ccIIV4)	10/22/2019
	12		Due Now
H1N1 Flu 09	1	H1N1 (SAN)	10/29/2009
	2	H1N1 (SAN)	12/15/2009
Meningococcal	1	MCV4 Menactra	10/22/2019
	2		Due 09/18/2024
HPV	1	HPV9 Gardasil	10/22/2019
	2		Due Now
Zoster	1		Due 09/18/2058
	2		Due 11/18/2058

Current Practice

- EHR prompting (addressing the red)



	DUE	Previous Service
Flu	DUE	09/27/19
HPV	DUE	09/27/19
Prevention		
Td-Adult/Tdap	09/27/29	09/27/19
Flu	DUE	09/27/19
Pneumococcal-please ask your provider to review RECIN for vaccine type due PPSV23 or PCV13	10/27/72	10/28/10
Meningococcal	10/27/23	09/27/19
HPV	DUE	09/27/19
Zoster	10/27/57	-

Current Practice

- Standing orders for vaccination (Adult and Pediatric)
- Vaccination Policy
- Transparent quality data – by system, department, provider
    - Ability to view patient not at goal lists

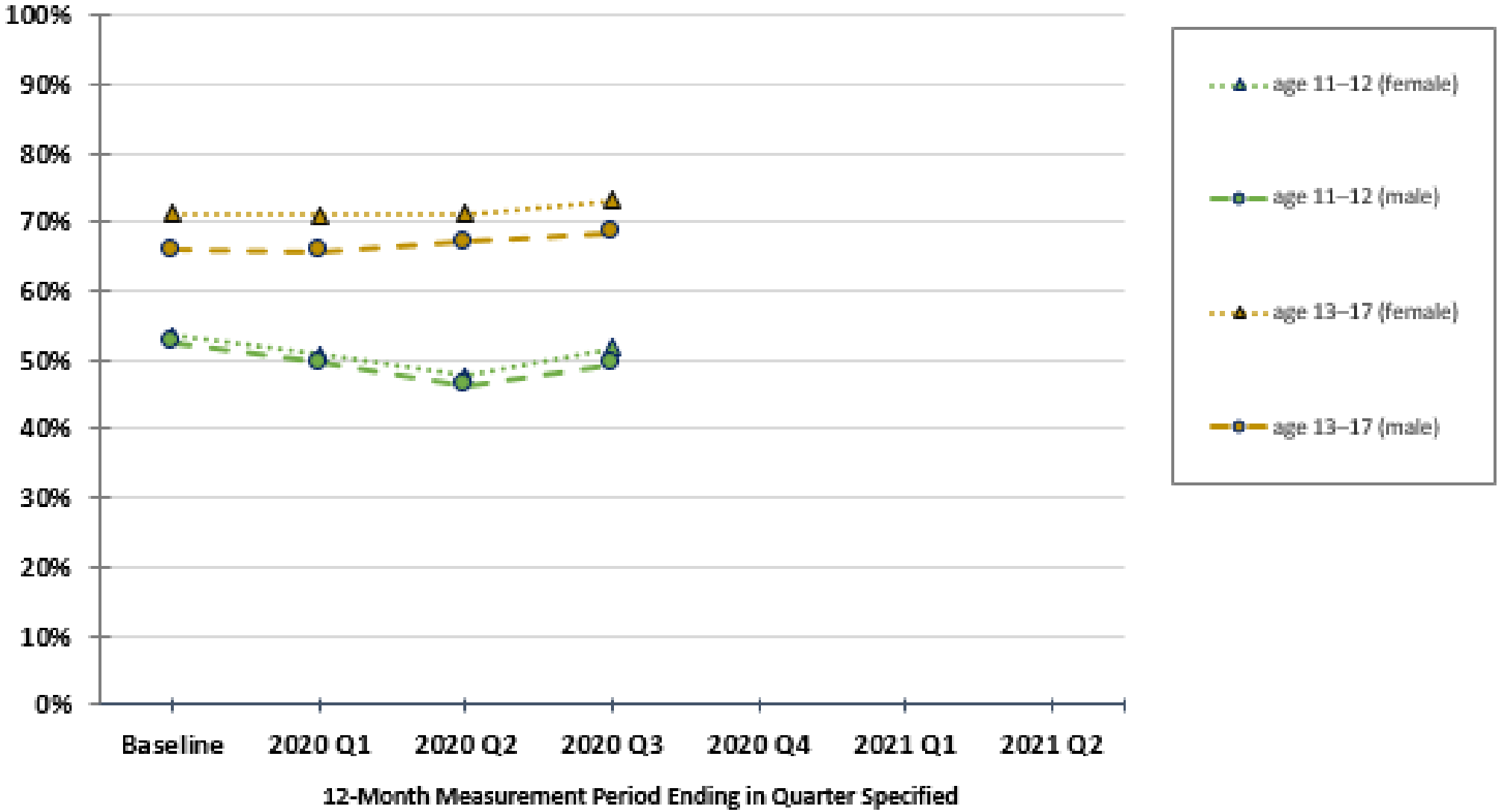
Current Initiatives

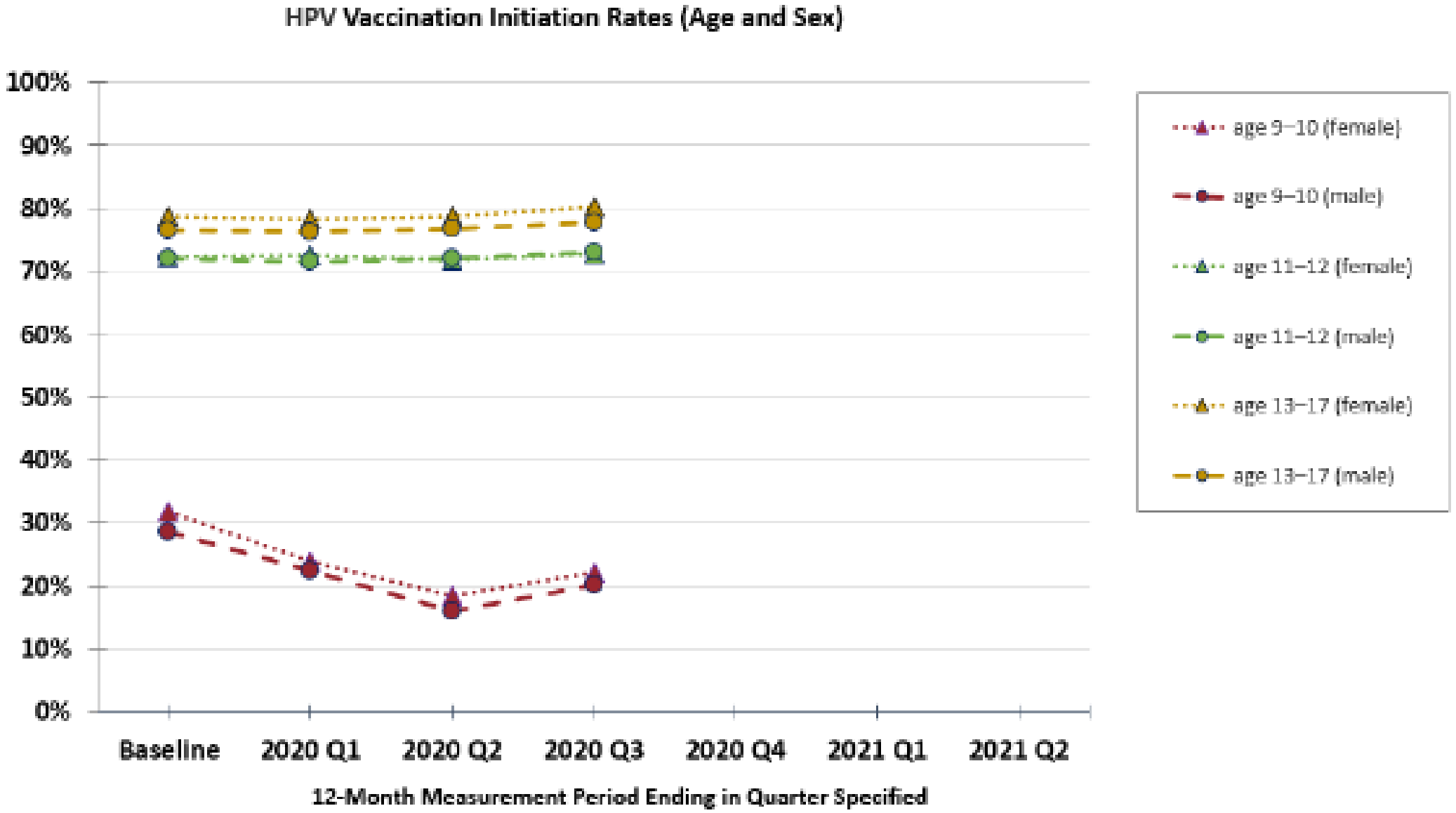
- Adolescent Immunizations in the Midwest, Eliminating Disparities (AIMED)
    - CDC Funding to understand and address disparities in vaccination coverage among adolescents living in rural and urban areas of Minnesota and Wisconsin
        - Partnership with Marshfield Clinic Research Institute, Minnesota Department of Health and Wisconsin Department of Public health
    - Provider Surveys, Parent Surveys
        - Create an intervention that will be implemented and evaluated

- Wisconsin Collaborative for Healthcare Quality Disparities Report
    - Next Disparities Report – November 2020
- AMGA HPV Best Practice Learning Collaborative
- We're in! 2020 – National HPV Roundtable

Support Staff

- Clinical Quality Coordinators
    - Addressing patient not at goal lists
    - Social Determinants of Health
        - Currently CQCs are redeployed to assist with COVID-19 response
- Vaccine Lead Program


HPV Vaccination Completion Rates by Age and Sex
Q3 = September 2020
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Baseline
2020 Q1
2020 Q2
2020 Q3
2020 Q4
2021 Q1
2021 Q2
12-Month Measurement Period Ending in Quarter Specified
age 11–12 (female)
age 11–12 (male)
age 13–17 (female)
age 13–17 (male)



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Partnerships/Collaboratives

- Immunization Action Coalitions
- Wisconsin Collaborative for Healthcare Quality
- American Medical Group Association
- American Cancer Society
- Adolescent Champion Model – Adolescent Health Initiative
    - University of Michigan
- Pharmaceutical Companies

Past Initiatives

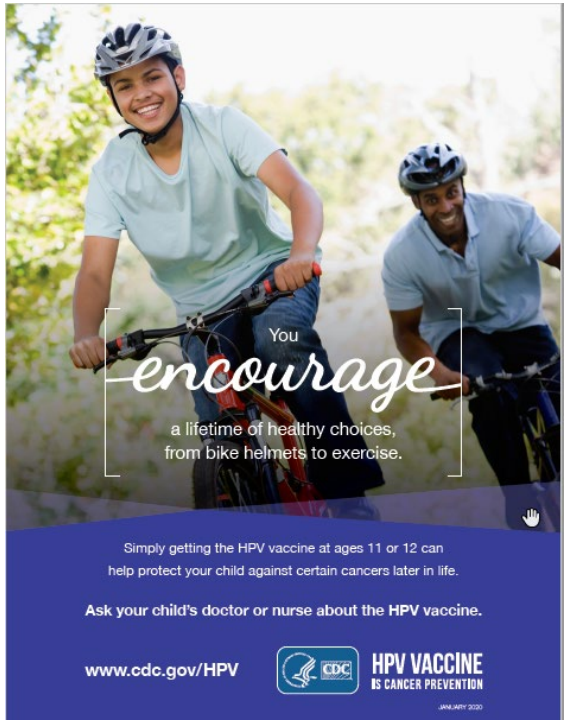
- Past Projects:
    - BRAVO Project - Boosting Recommended Adolescent Vaccines On-time
        - Published 2017 – Journal of Adolescent Health
            - Educational interventions in 9 departments 0
            - Increased HPV completion rates (41% to 59%)

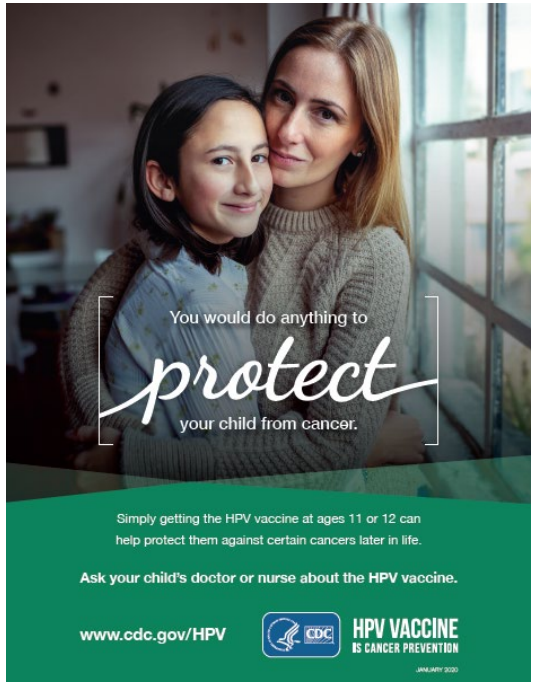
Conclusions: HPV vaccine uptake can be improved through a multifaceted approach that includes provider and staff education and patient reminder/recall. System-level change to optimize reminder and recall notices can have substantial impact on HPV vaccine utilization.

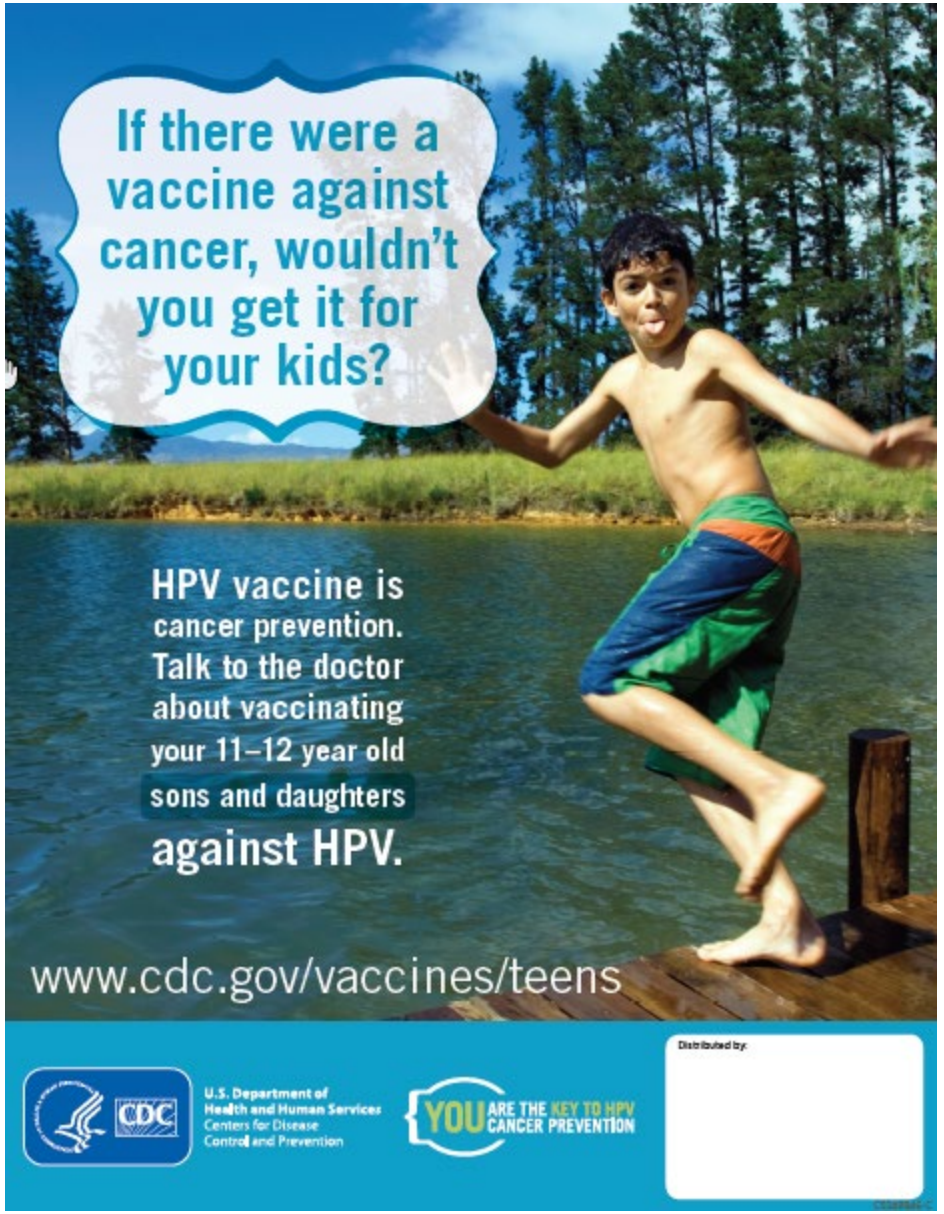
- State Legislation
    - Personal Conviction Waiver
        - Failed to pass 4/1/2020

Resources

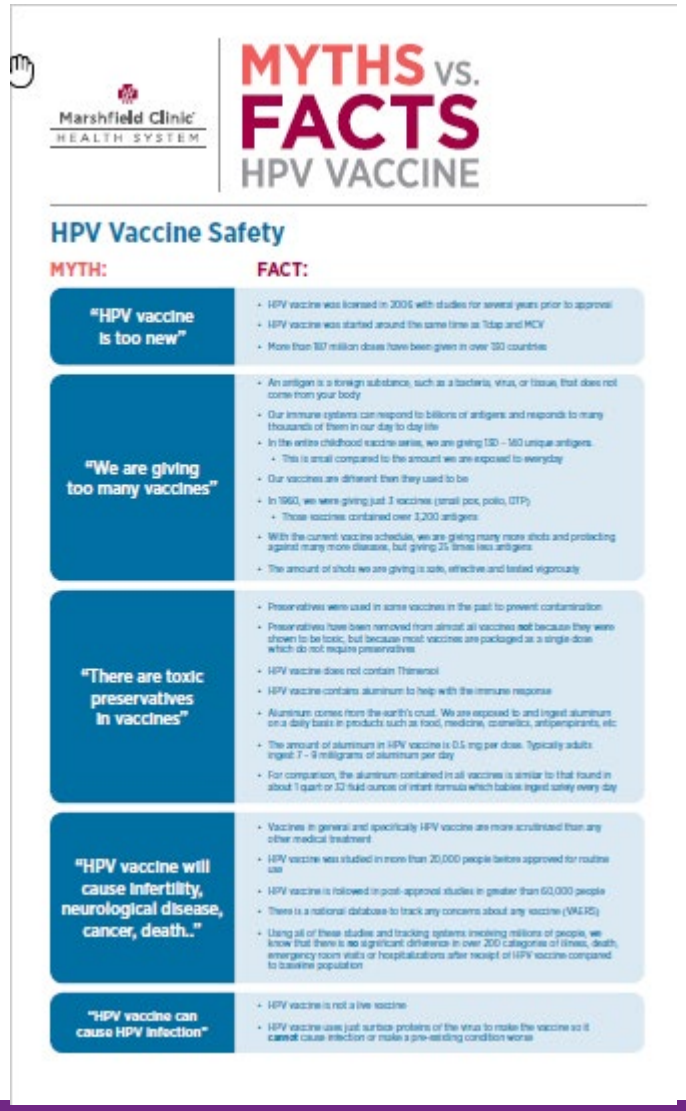
- Posters -CDC







Resources-HPV Myths/Facts



Marshfield Clinic HEALTH SYSTEM

MYTHS vs. FACTS HPV VACCINE

HPV Vaccine Safety

MYTH:	FACT:
"HPV vaccine is too new"	• HPV vaccine was licensed in 2006 with studies for several years prior to approval • HPV vaccine was started around the same time as Tdap and MCV • More than 187 million doses have been given in over 130 countries

"We are giving too many vaccines"	• An antigen is a foreign substance, such as a bacteria, virus, or tissue, that does not come from your body
	• Our immune systems can respond to billions of antigens and responds to many thousands of them in our day to day life
	• In the entire childhood vaccine series, we are giving 130 – 140 unique antigens.
	  • This is small compared to the amount we are exposed to everyday
	• Our vaccines are different than they used to be
	• In 1960, we were giving just 3 vaccines (small pox, polio, DTP)
	  • Those vaccines contained over 3,200 antigens
	• With the current vaccine schedule, we are giving many more shots and protecting against many more diseases, but giving 2% times less antigens
	• The amount of shots we are giving is safe, effective and tested vigorously

"There are toxic preservatives in vaccines"	• Preservatives were used in some vaccines in the past to prevent contamination • Preservatives have been removed from almost all vaccines **not** because they were shown to be toxic, but because most vaccines are packaged as a single dose which do not require preservatives • HPV vaccine does not contain Thimerosol • HPV vaccine contains aluminum to help with the immune response • Aluminum comes from the earth's crust. We are exposed to and ingest aluminum on a daily basis in products such as food, medicine, cosmetics, antiperspirants, etc • The amount of aluminum in HPV vaccine is 0.5 mg per dose. Typically adults ingest 7 – 9 milligrams of aluminum per day • For comparison, the aluminum contained in all vaccines is similar to that found in about 1 quart or 32 fluid ounces of infant formula which babies ingest safely every day
"HPV vaccine will cause infertility, neurological disease, cancer, death.."	• Vaccines in general and specifically HPV vaccine are more scrutinized than any other medical treatment • HPV vaccine was studied in more than 20,000 people before approved for routine use • HPV vaccine is followed in post-approval studies in greater than 60,000 people • There is a national database to track any concerns about any vaccine (VAERS) • Using all of these studies and tracking systems involving millions of people, **we** know that there is **no** significant difference in over 200 categories of illness, death, emergency room visits or hospitalizations after receipt of HPV vaccine compared to baseline population
"HPV vaccine can cause HPV infection"	• HPV vaccine is not a live vaccine • HPV vaccine uses just surface proteins of the virus to make the vaccine so it **cannot** cause infection or make a pre-existing condition worse

HPV Vaccine Effectiveness

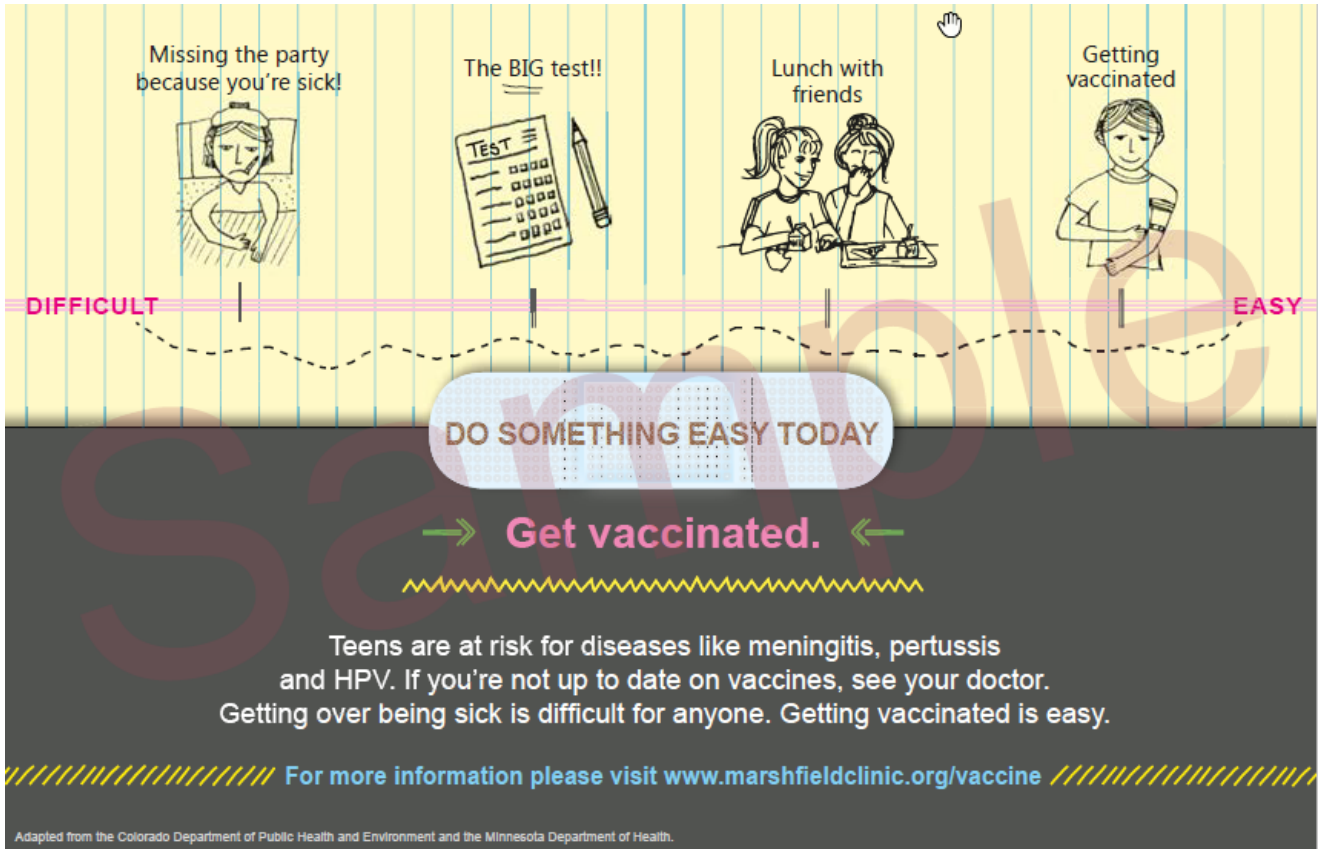
MYTH:	FACT:
"V vaccine is not effective"	• HPV vaccine is extremely effective causing more than 99% of people to have antibodies after vaccination • Studies have shown close to 100% protection against pre-cancers and genital warts • Despite the fact that HPV vaccine completion nationally is just over 30%, since 2006 when HPV vaccination began, there has been more than 60% reduction in HPV infection in teen girls
"It's better to get immunity naturally by getting infected with HPV"	• Most people will be infected with at least one strain of HPV at some point in their lives, but will never know they are infected • 90% clear infection without getting clinical diseases, but 10% do not clear infection and will end up with disease including 40,000 cases of new HPV-related cancer each year • We cannot predict who will clear the infection and who does not, so taking the risk of getting natural protection from HPV infection is taking a chance on getting a cancer which is **preventable**

HPV Vaccine Uncertainties

"Boys don't need HPV vaccine"	• HPV is a very common infection in both males and females • HPV causes head and neck cancer in addition to cervical cancer, genital cancer and genital warts • Males get approximately ½ the number of cases of HPV related cancer (about 9,000 per year) than women get, and can also put their partners at risk of cancer by spreading HPV • We will have the greatest impact on cancer prevention when we have high rates of HPV vaccination in both males and females
"It's too early to give HPV vaccine"	• The immune response is better in younger patients • Only 2 doses are needed before age 15 years rather than 3 doses if started at age 15 or older • The vaccine is preventative only and will not work to treat those who are already infected • 70 – 80% of adults become infected with HPV (90% clear infection, but 10% do not) • Of the 10% that do not, many will develop cervical or head and neck cancer • Protection has been long-lasting
"Giving HPV vaccine early will make my pre-teen think about sex or lead to sex."	• Studies have shown that giving HPV vaccine to pre-teens does not lead to early or increased sexual behavior • 70 – 80% of adults become infected so although HPV is obtained through sexual contact, think about HPV as a virus someone becomes infected with at some point in their life
"Our value system is to be monogamous"	• We support your value system. Giving HPV vaccine prevents cancer and is not at odds with your values

Gundersen Health System has prompting built into EPIC. Adapted and designed with permission from Rajiv Naik, MD, FAAP

Reminder Postcards



Vaccines aren't just for babies – preteens and teens need to be protected, too! Older kids are still at risk for certain diseases.

Marshfield Clinic and the Wisconsin Department of Health Services want you to know that the recommended vaccines include:

1. Tdap booster to prevent pertussis (whooping cough)
2. Meningococcal vaccine to prevent meningitis (brain swelling)
3. HPV vaccine to prevent HPV infections and related cancers
4. Annual flu shot

Keeping your child up-to-date on vaccinations is easy. Many Marshfield Clinic locations offer vaccine-only appointments.

Call Marshfield Clinic today for more information or to schedule an appointment or www.marshfieldclinic.org/vaccine.

Marshfield Clinic HEALTH SYSTEM

Wisconsin Department of Health Services

16364-002

Marshfield Clinic HEALTH SYSTEM

1000 N OAK AVE, ML2
MARSHFIELD WI 54449-5777

FORWARDING SERVICE REQUESTED

Sample

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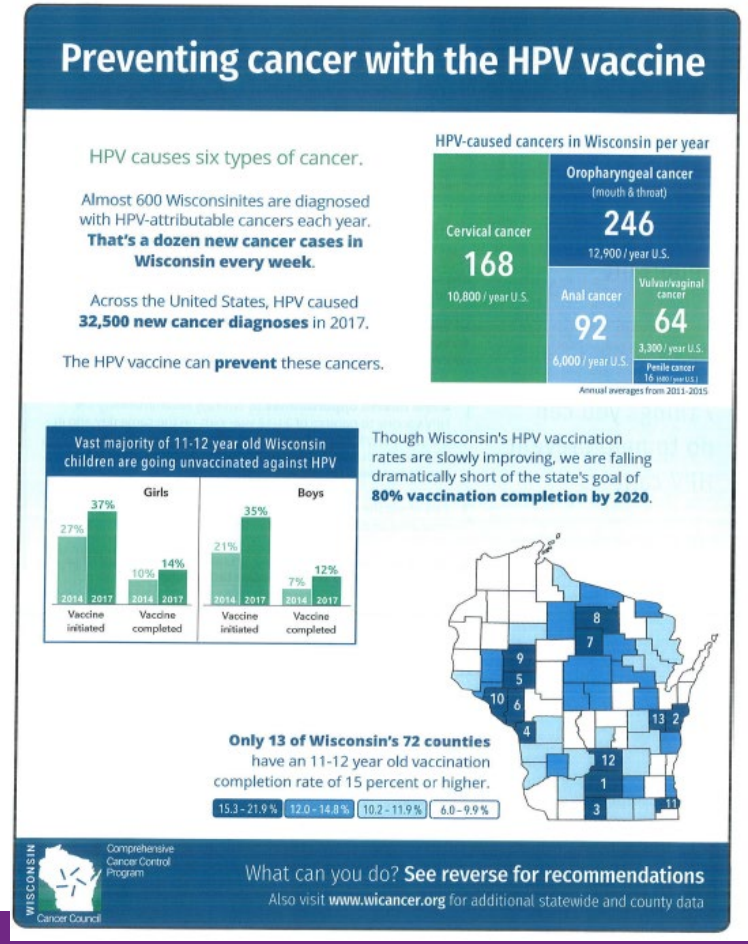
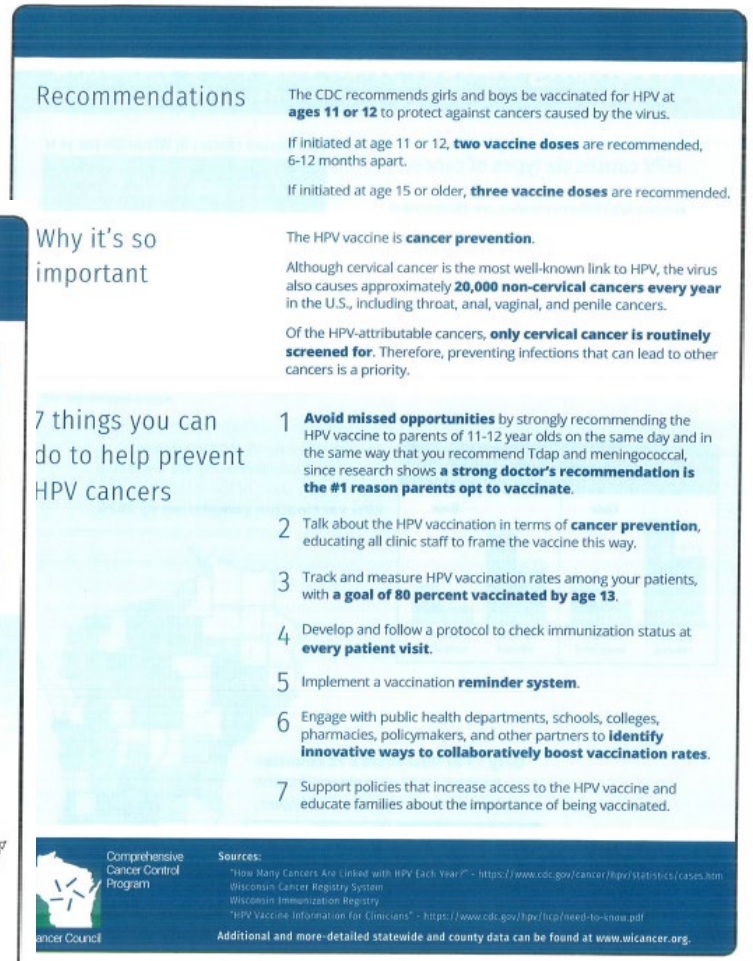
ACS Resources

- American Cancer Society
  - HPV Take a Shot at Cancer
  - HPV Don't Wait to Vaccinate
  - HPV Wisconsin(2018)





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What's Next?

- Expanding reminder/recall
    - Sending letters to patients turning 11 explaining adolescent vaccines
    - 12 year (every other month) letters – sending in parent's preferred method of communication (Text, Email, letter)
    - Completion – Targeted intervention for those that started but did not complete the series (ages 13 years and older)
- Targeted education
    - Providers
    - Medical Support Staff
- Collaborating with Dental/ENT