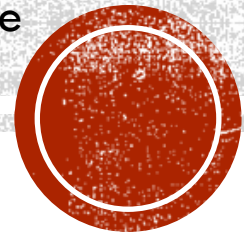




TEEN VACCINE UPDATE

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UCSD/RCH Adolescent and Young Adult Medicine



POLL/QUIZ

Who is here today?

Do you counsel about adolescent vaccines?

What is the hardest part for you?

WHY do you think things have changed?



ROUTINE ADOLESCENT IMMUNIZATIONS

Tdap

HPV

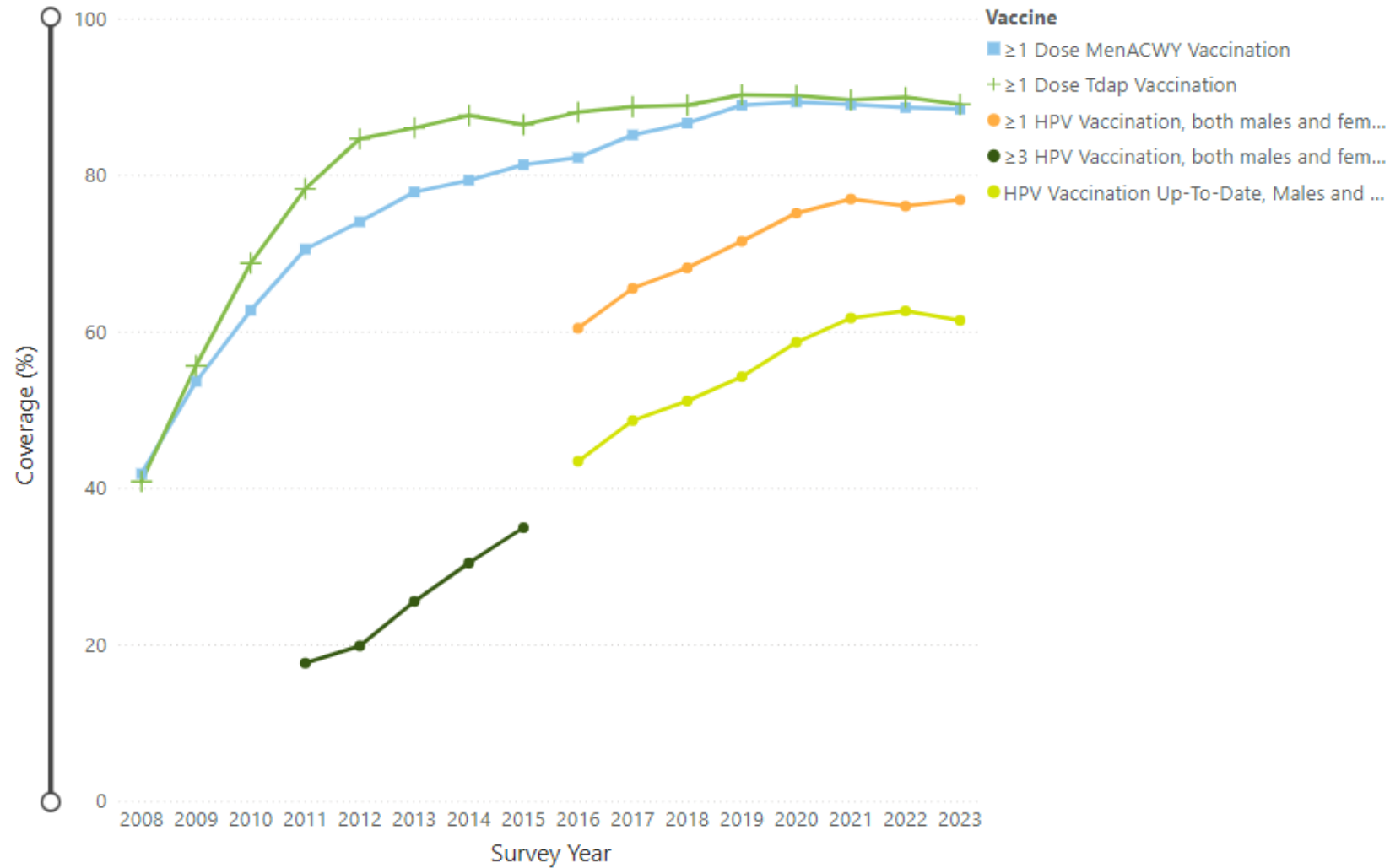
Meningococcal
ACWY +/- Men
B

Influenza

COVID

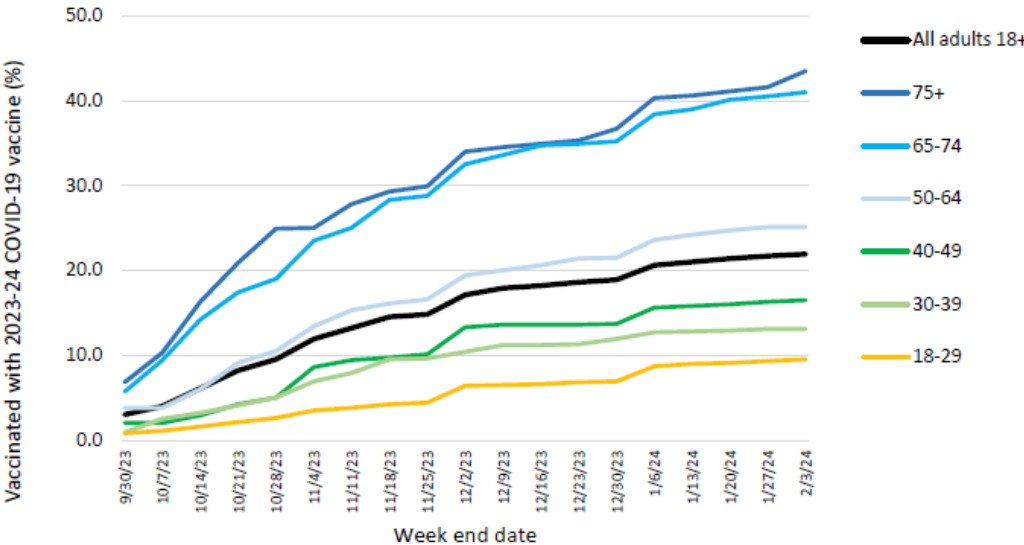


Vaccination Coverage by Year among Adolescents Age 13-17 Years, United States, National Immunization Survey-Teen

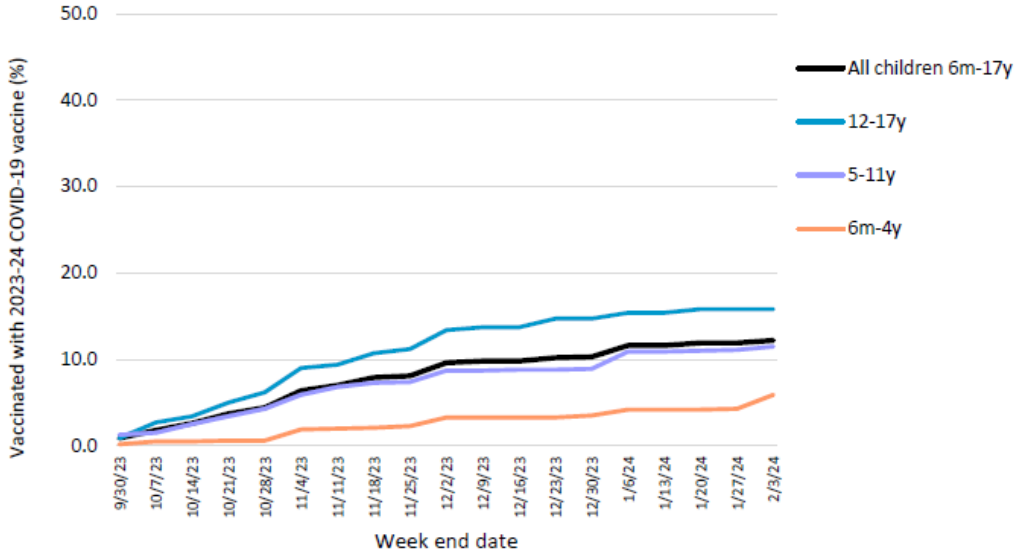


2023-2024 COVID VACCINE COVERAGE

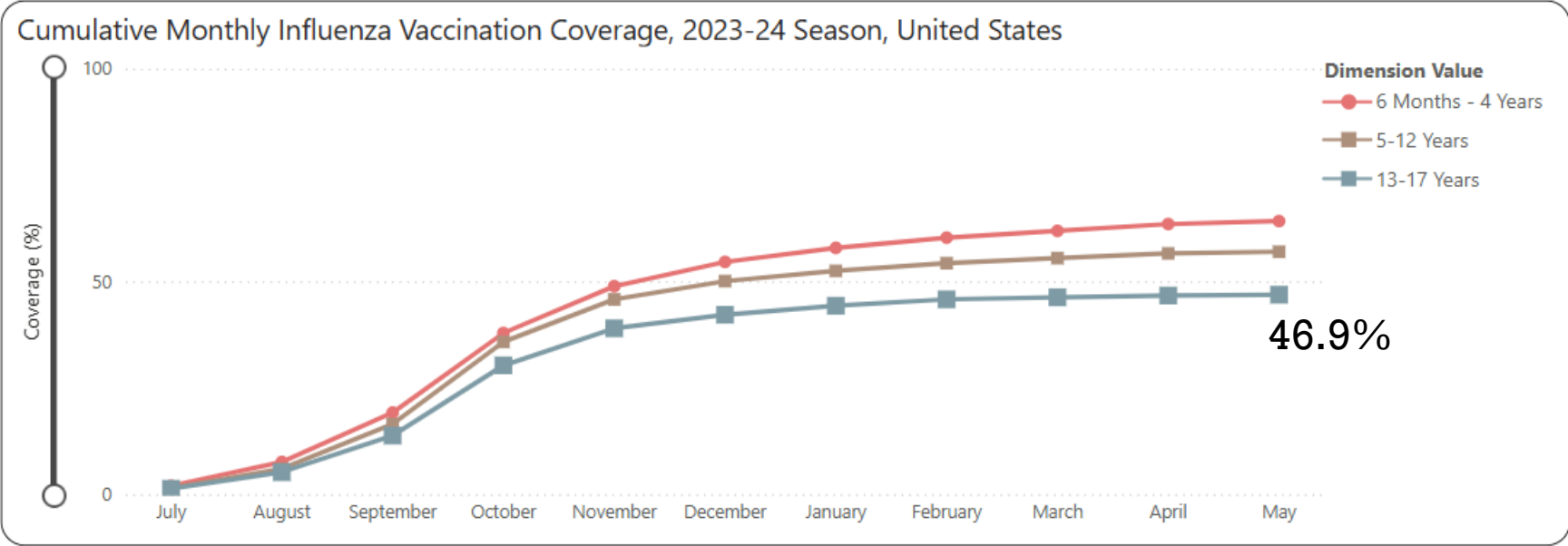
COVID-19 Vaccination Coverage with 2023-24 Vaccine Among Adults ≥18 Years, NIS-ACM



COVID-19 Vaccination Coverage with 2023-24 Vaccine Among Children 6 Months-17 Years, NIS-CCM



2023-2024 FLU VACCINE COVERAGE



<https://www.cdc.gov/fluview/interactive/general-population-coverage.html>





Now BOTH Bexsero and Trumenba are 2 doses, 6 mo apart

There's a new pentavalent (ACWY+B) meningococcal vaccine on the market – waiting for official CDC recs

May change the meningococcal dosing schedule

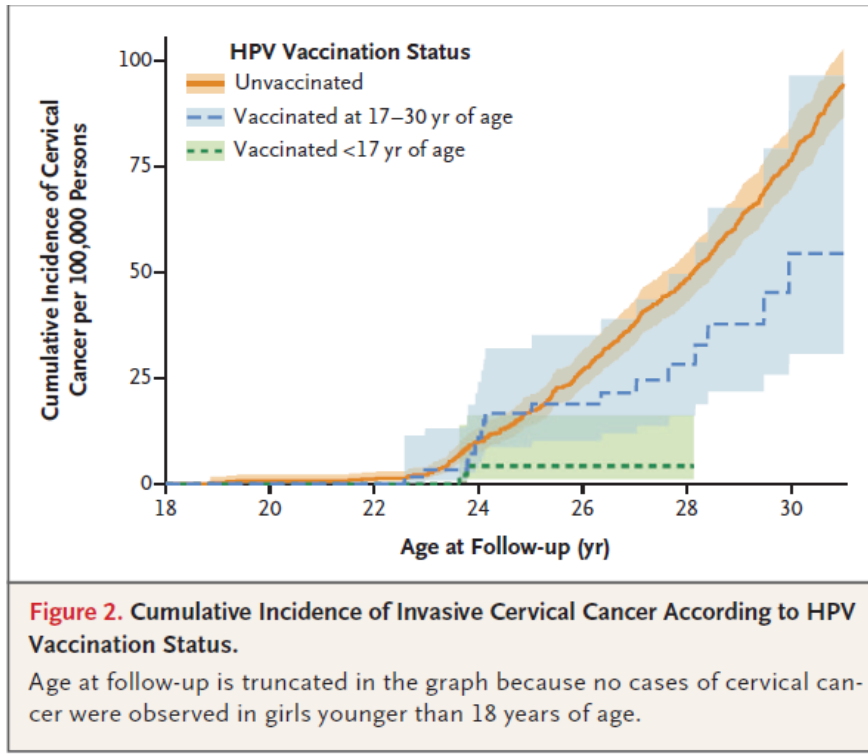


CDC is now more encouraging of starting HPV vaccination at age 9

RECOMMEND vs “permitting” at age 9?

Single dose may be effective!

HPV VACCINE PREVENTS CANCER



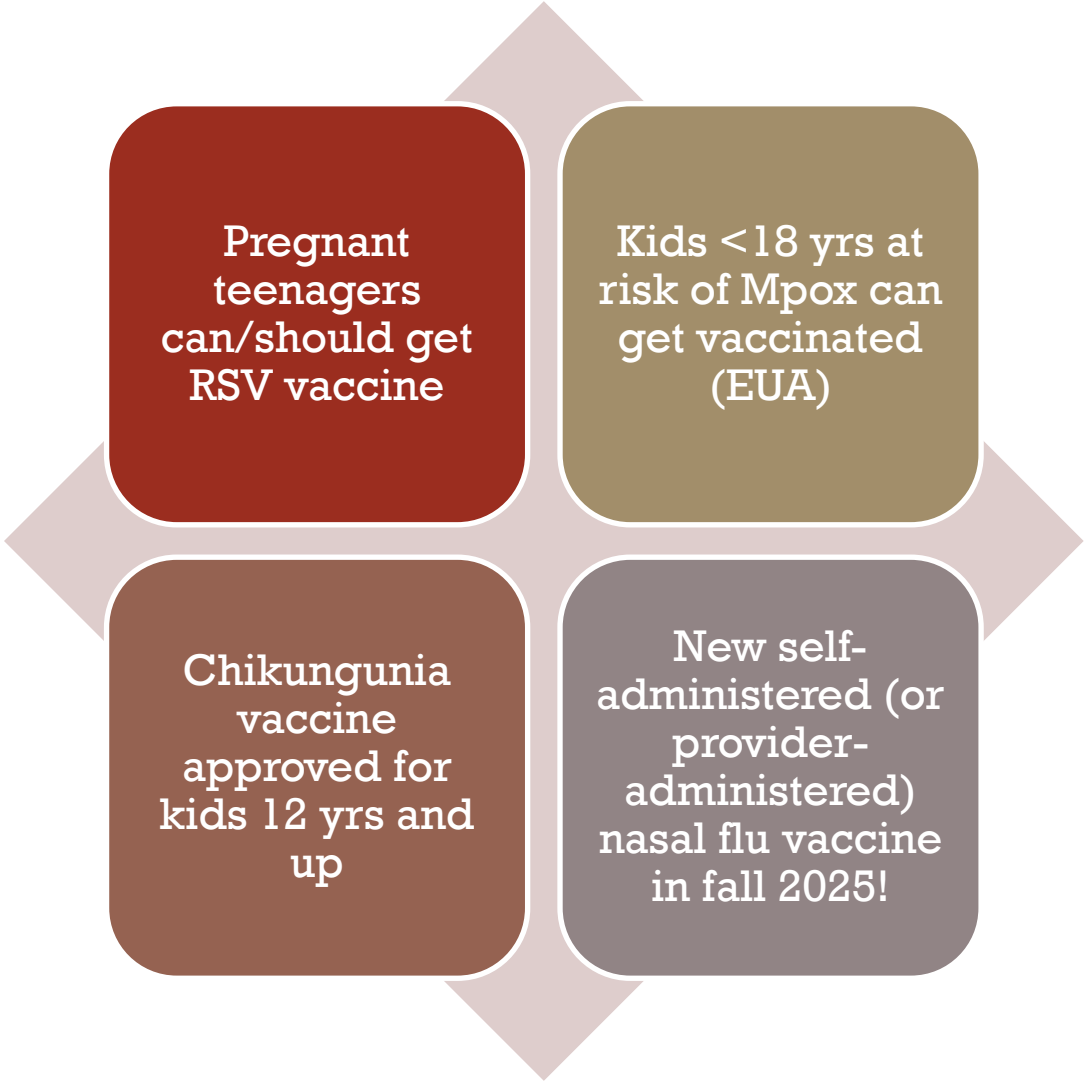

- Risk of cervical cancer was 88% lower in girls vaccinated before age 17 years compared to unvaccinated
- Risk of cervical cancer was 53% lower in women vaccinated between 17-30 years of age
- 84% of cervical cancers caused by HPV16 and HPV18

Lei J et al, N Engl J Med 2020;383:1340-8.





**MISCELLANEOUS
UPDATES**



Pregnant
teenagers
can/should get
RSV vaccine

Kids <18 yrs at
risk of Mpox can
get vaccinated
(EUA)

Chikungunia
vaccine
approved for
kids 12 yrs and
up

New self-
administered (or
provider-
administered)
nasal flu vaccine
in fall 2025!



To: CAHAN San Diego Participants

Date: February 14, 2025

From: Public Health Services

Health Advisory: Increased adolescent deaths in San Diego County due to seasonal influenza.

Key Messages

- On February 13, 2025, a fourth adolescent death due to seasonal influenza was reported in the San Diego County (SDC) [Respiratory Virus Surveillance Report](#).
- Of eligible SDC residents between 6 months to 17 years of age, only 23% have received the 2024-25 seasonal influenza vaccination.
- As it is still mid-season, providers should encourage vaccination and early treatment with antiviral agents, especially for those at higher risk for more severe outcomes.
- Providers should subtype influenza samples from ICU patients if the H antigen of influenza A is neither H1 nor H3.
- Deaths due to influenza in persons less than 18 years of age are required to be reported to the County Epidemiology Unit.



FDA NEWS RELEASE

FDA Approves Nasal Spray Influenza Vaccine for Self- or Caregiver-Administration

First Influenza Vaccine That Does Not Need to be Administered by a Health Care Provider

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For Immediate Release: September 20, 2024





WHY IS COVERAGE SO LOW?

- Vaccine Hesitancy
- Decline of preventive care
- The Infodemic





VACCINE HESITANCY: ADOLESCENTS (CAEDDU ET AL, 2021)

- 3 main categories:
 - Knowledge (of disease and vaccine)
 - Vaccination setting and experience
 - Individual factors





- **LACK OF AWARENESS** of the disease/vaccine was one of the main reasons cited for not receiving a vaccine
- Adolescent confidence in a vaccine is higher if the disease is perceived as “severe”
- Girls are more likely than boys to have knowledge of a vaccine
- Boys are more likely than girls to believe vaccines are safe/effective
- Sources of information:
 - Most preferred: Family, school, health care providers
 - Most accessible: social media



VACCINATION SETTING AND EXPERIENCE

- SCHOOL-BASED INFORMATION and vaccination sites = VERY positive impact on attitudes and uptake
- Consistent and equitable access to vaccines (again: schools)
- Fear of injection pain
 - Combined vaccines preferred





INDIVIDUAL FACTORS

- Overall, adolescents have less vaccine-related knowledge and more vaccine hesitancy than parents, BUT want to be included in decisions
- Higher SES seems to be associated with higher vaccine uptake and confidence
- **KNOWING** someone who has had the vaccine helps (e.g. HPV)
- Sexually active adolescents are more willing to get HPV vaccine

VACCINE HESITANCY: PARENTS (ROBERTS ET AL, 2015)

- Parents of adolescents: 25% are unsure overall about vaccines for adolescents.
 - >40% concerned about serious side effects
 - >45% did not think teens could get all of the vaccines recommended in one visit at once
 - Almost 40% were not confident that the vaccine prevents disease
 - 16% thought it was better for their teen to develop immunity by getting sick than from a vaccine
 - >25% thought teens get more vaccines than are good for them
 - **95% agreed that “it is my role as a parent to question vaccines”**





VACCINE HESITANCY: PARENTS

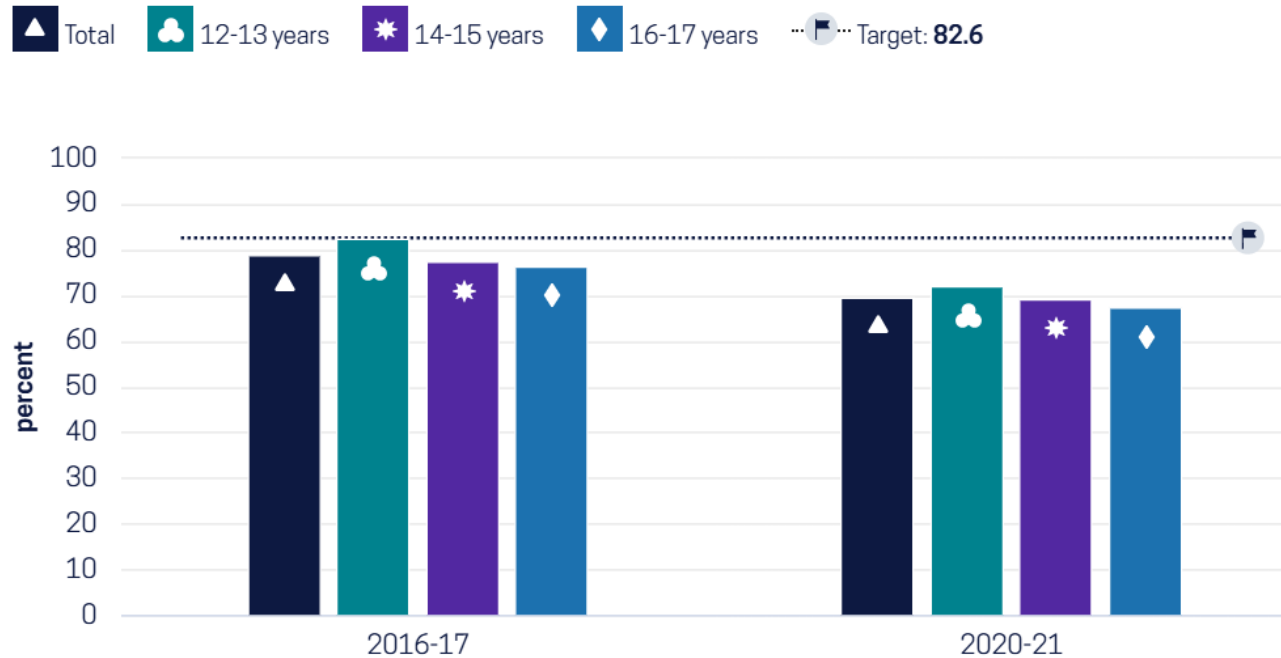
(KLASSEN ET AL, 2024)

- Effects of the COVID19 pandemic on general vaccination attitudes for parents of kids aged 9-14 :
 - 26% of parents MORE likely to vaccinate
 - Increased appreciation of vaccines overall
 - Motivation to seek preventive care
 - 4% of parents LESS likely to vaccinate
 - Distrust of COVID19 public health efforts including vaccine development
 - Disillusionment with vaccines' ability to prevent disease
- Intent to vaccinate associated with:
 - Democratic political affiliation
 - Urban residence
 - Higher parent education



DROP IN YOUTH RECEIVING WCVS IN THE LAST 1 YEAR

Total dropped from 78.7% to 69.6% (down 9.1%)
Kids 12-13 years: 82.3% → 72.1% (down 10.2%)



Data Source: [National Survey of Children's Health \(NSCH\)](#), HRSA/MCHB





THE INFODEMIC

- Study of parents who use social media for vaccine information
 - Political affiliation was the **ONLY** factor that affected both confidence in vaccines and vaccine uptake for their children (Manganello, 2023)
- Those who rely on social media as a primary news source are less likely to get themselves or children vaccinated (Nicholls et al, 2024)
 - Highly related to TRUST in government, public health infrastructure
- People **WANT** credible info from professionals/recognized associations on social media (Fontenot et al, 2024)





HPV VACCINE IN PARTICULAR

- 37% of parents had viewed something on HPV vaccine on social media
 - 20% positive
 - 5% negative
 - 12% mixed
- Compared to no social media exposure:
 - Viewing + content: more likely to vaccinate child (OR = 1.74)
 - Viewing – or mixed content: more likely to delay (OR = 3.29) or refuse (OR = 4.72) vaccination



SOLUTION #1: GET THEM BACK FOR WELL VISITS

- Time to bring the focus back to preventive care
 - Hospital medicine “inreach” has been successful (Morehous et al, 2022)
 - Expansions of Medicaid/Medicare
 - Investment by insurance companies



1

School vaccination rather than offices? MAKE IT EASY.

2

More nursing vaccine visits rather than needing to see an MD/APP?


- School nurses?

3

VFC program expansions?

SOLUTION #2: EXPAND/ENSURE EQUITABLE ACCESS





**SOLUTION #3:
ADDRESS VACCINE
HESITANCY**

In the office:

- Provide **KNOWLEDGE** (don't assume that people have it)
 - Discuss disease **SEVERITY**
 - Highlight **EFFECTIVENESS** and **SAFETY**
- Call out the infodemic - validation
- Make a **PERSONAL** recommendation – what would you do for your own child?
- Make it **RELEVANT** – ties to their own history
- Ultimately show respect for their autonomy (parents **AND** kids)
- Be a source of objectivity amid political chaos

Systemically:

- Contribute to accurate content on social media
- Expand school vaccine programs and mandates

FOR TEENS:

Create immediate relevancy (diseases that kill young people or give you warts!!)

They want to hear about personal experiences and not just statistics/facts. SHARE WHAT YOU HAVE SEEN.

Offer pain control and anxiolysis if needed

Compare discomfort of the vaccine to discomfort of the disease (like birth control and pregnancy)

Take advantage of altruism – protecting younger siblings/grandparents, friends, future partners

QR codes to quality online content



TAKEAWAYS



**Vaccine rates
among
adolescents
need a “booster”
(ha!)**



**The information
landscape has
changed since
the pandemic**

Science doesn't have
a side.



**Focus on
preventive care
as a whole**



**School, school,
school**



**Involve
adolescents in
the discussion**



**We need to find
them where they
are at – on social
media**



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THANK YOU!

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