Immunizations Update

IHS National Immunization Program

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AUGUST 24, 2022

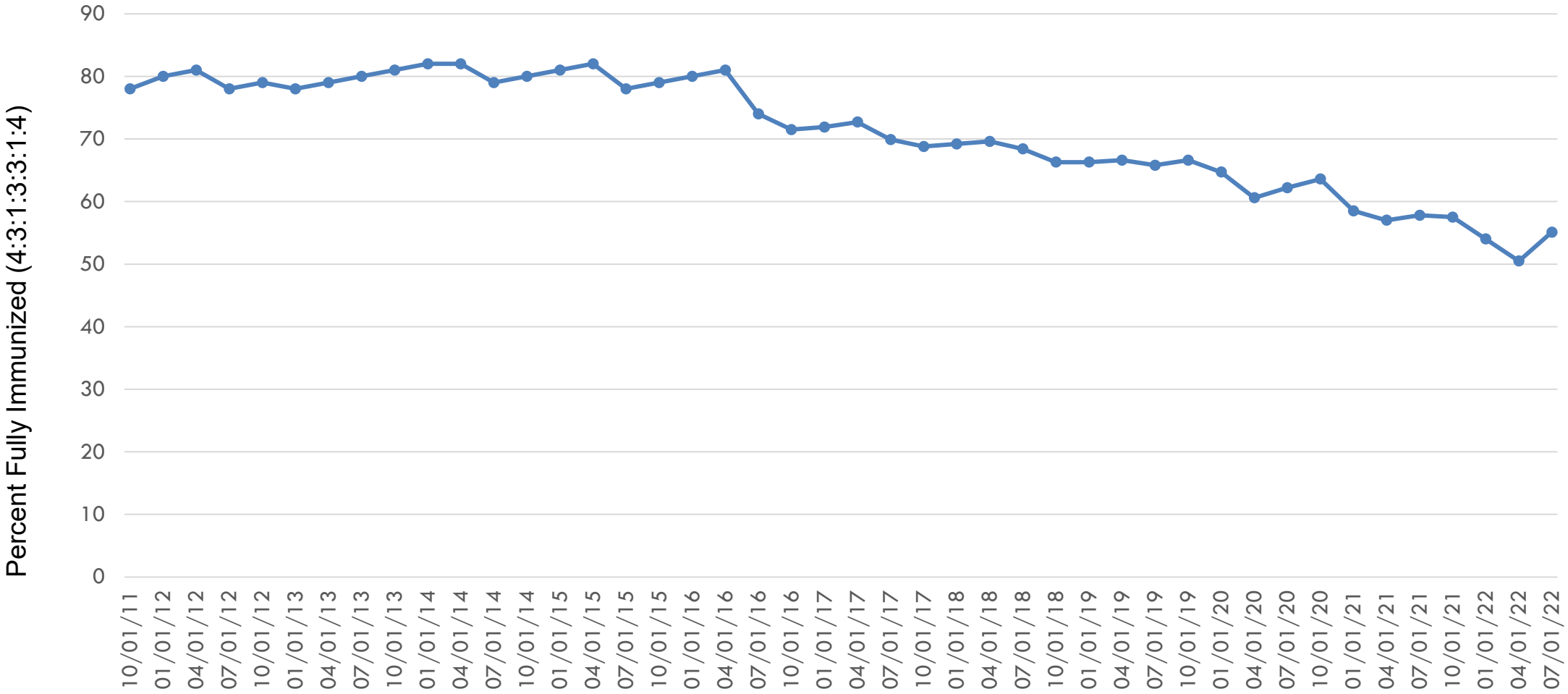
Routine Vaccines Across the Lifespan

- Coverage Rates
  - NIRS
  - NIS
  - COVID-19
- Campaigns – HHS and IHS
- Call to Action
  - Routine vaccines and Back to School
  - COVID-19

NIRS

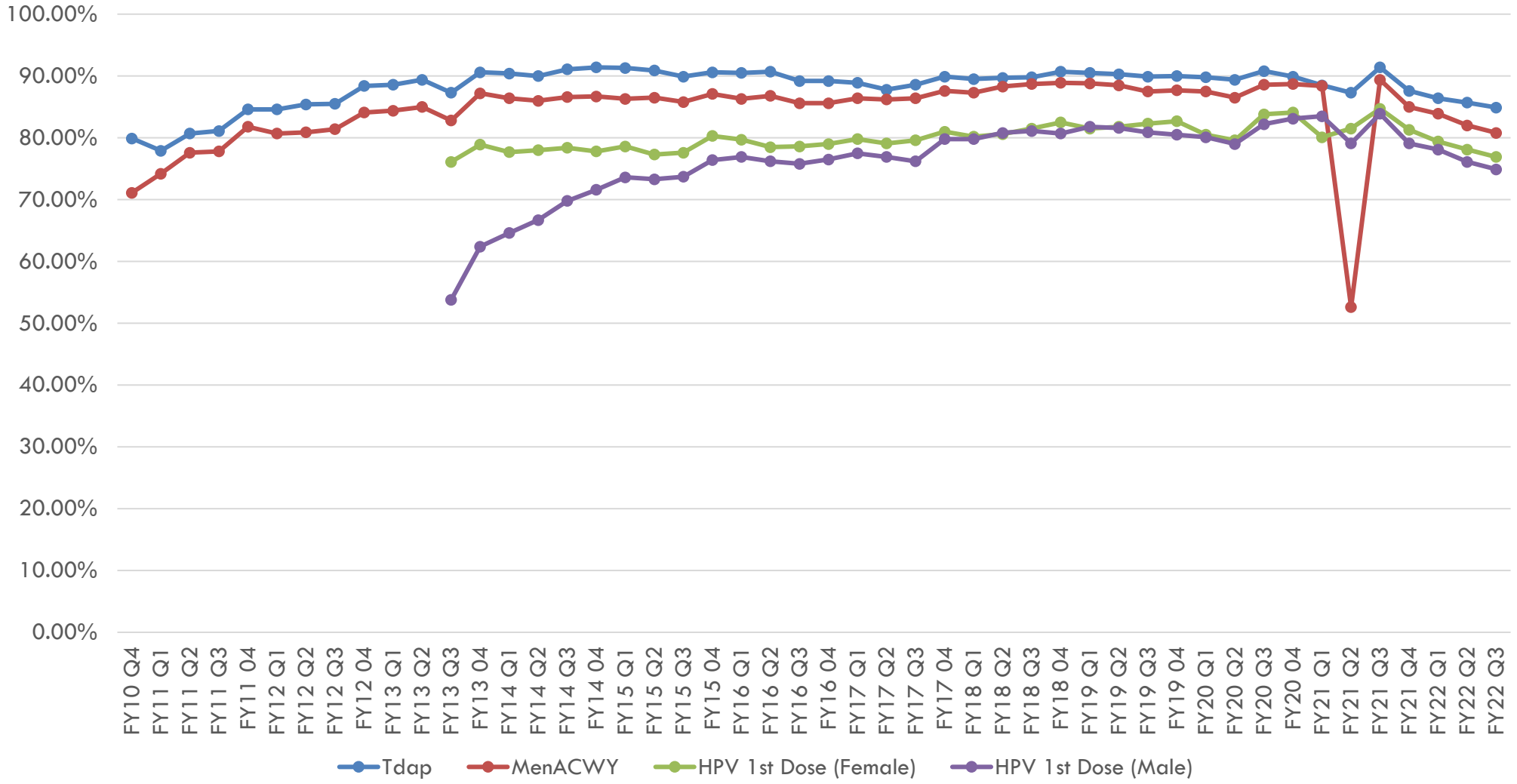
National Immunization Reporting System

Percent Fully Immunized
2 Year Olds
IHS National



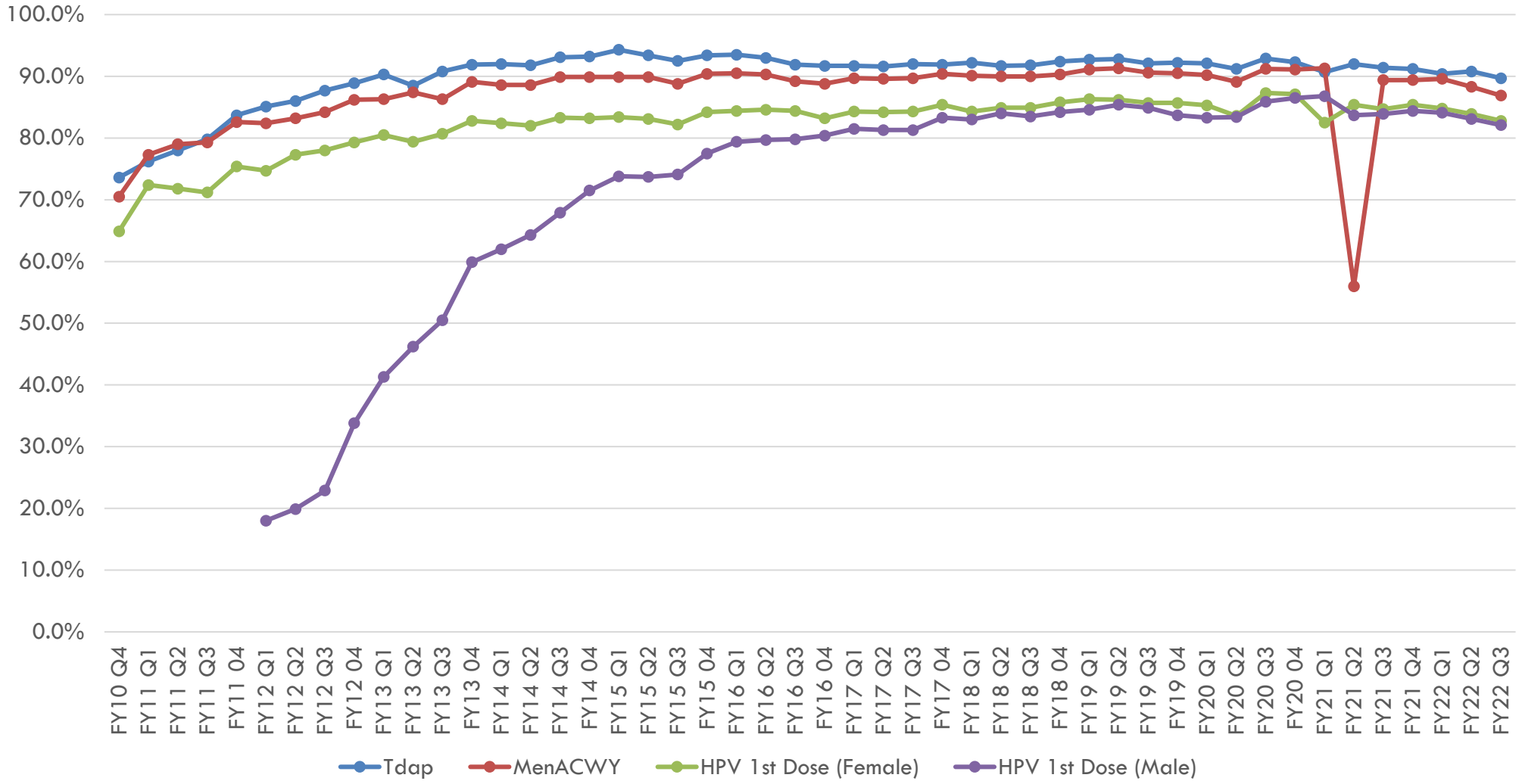
Data source: National Immunization Reporting System (NIRS):
https://www.ihs.gov/NonMedicalPrograms/ihpes/immunizations/index.cfm?module=immunizations&option=home

Adolescent Vaccine Coverage
13 Year Olds
IHS National



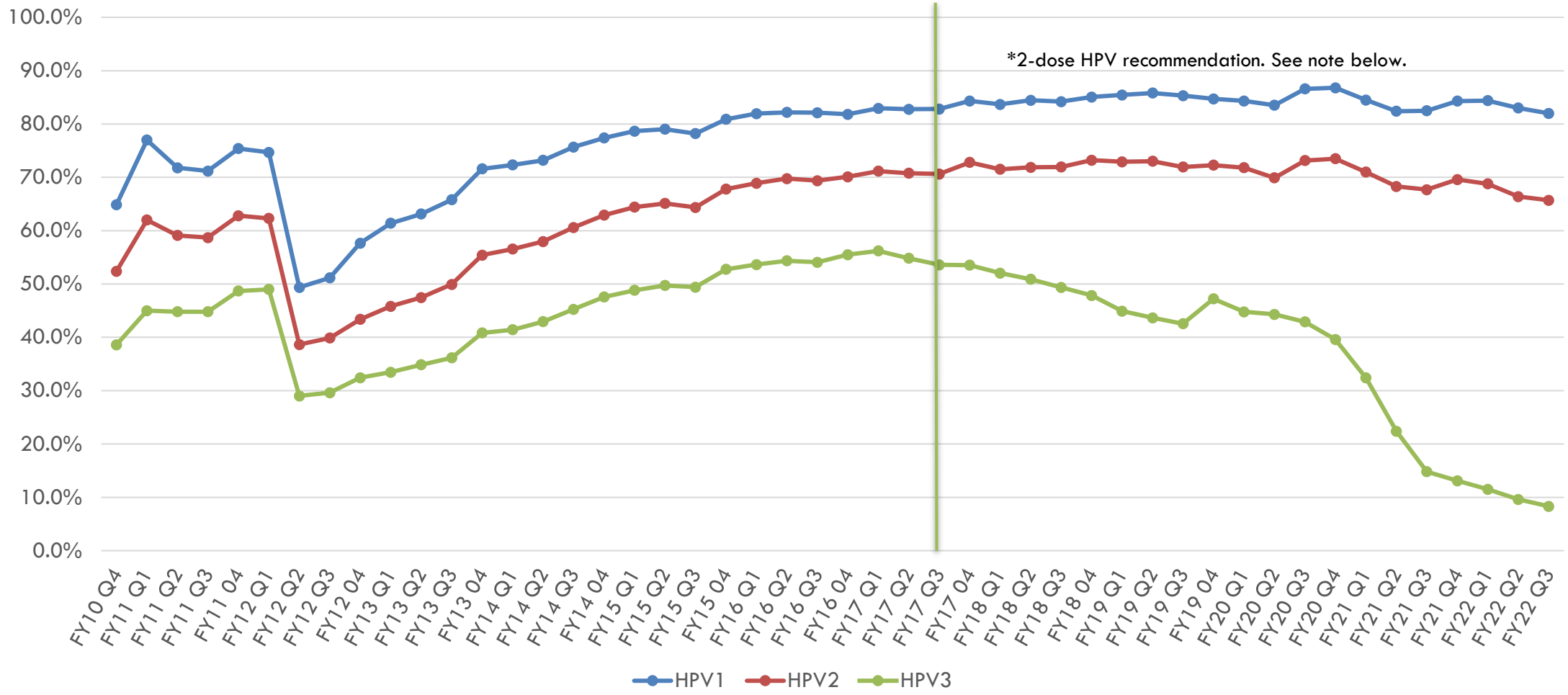
Data source: National Immunization Reporting System (NIRS):
https://www.ihs.gov/NonMedicalPrograms/ihpes/immunizations/index.cfm?module=immunizations&option=home

Adolescent Vaccine Coverage
13-17 Year Olds
IHS National



Data source: National Immunization Reporting System (NIRS):
https://www.ihs.gov/NonMedicalPrograms/ihpes/immunizations/index.cfm?module=immunizations&option=home

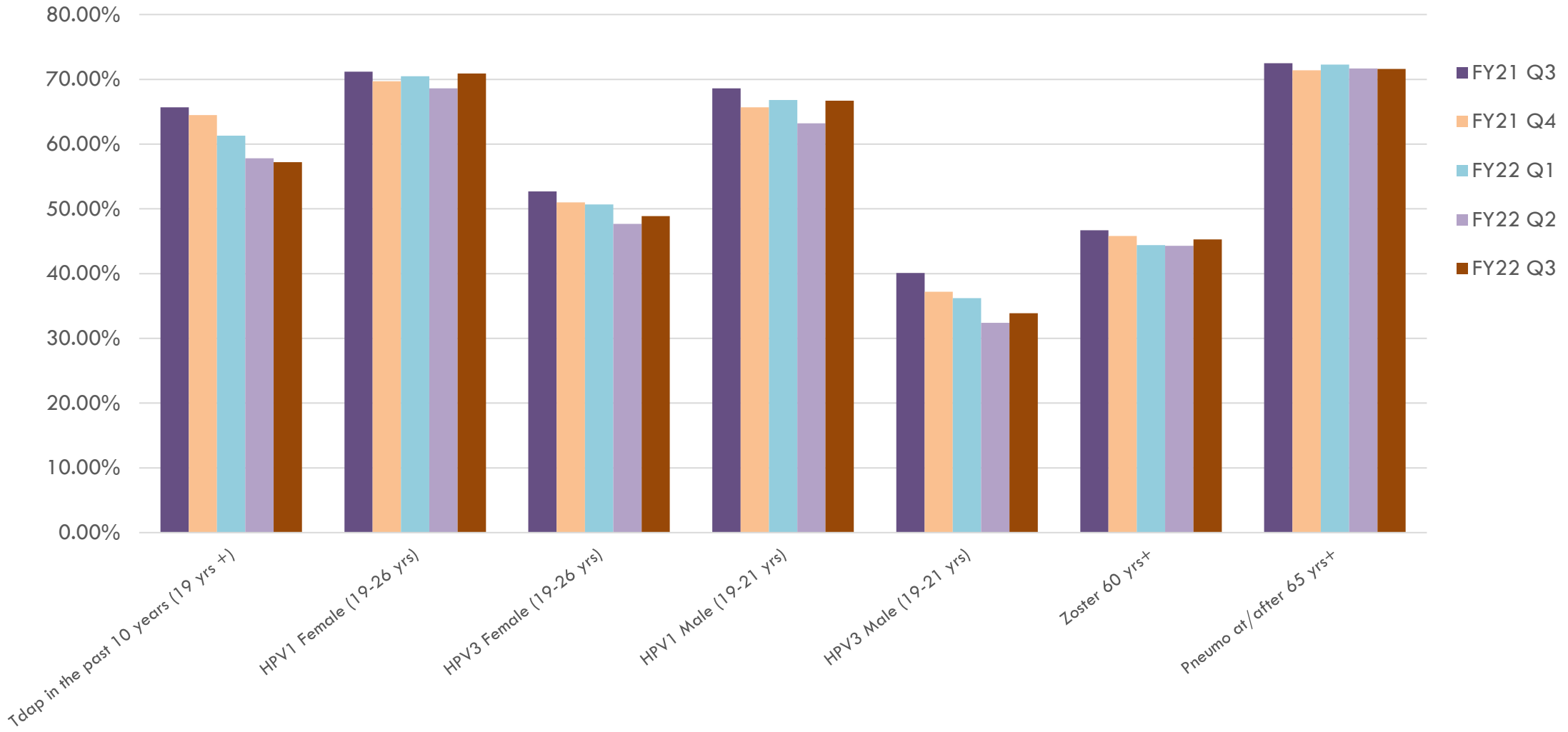
HPV Vaccine Coverage
13 - 17 years (Males and Females Combined)
IHS National



* NOTE: *IHS implemented the 2-dose HPV schedule into the clinical decision support, however it is not reflected in the reports. Therefore, the HPV 2nd and 3rd dose coverage currently do not reflect the true coverage.*

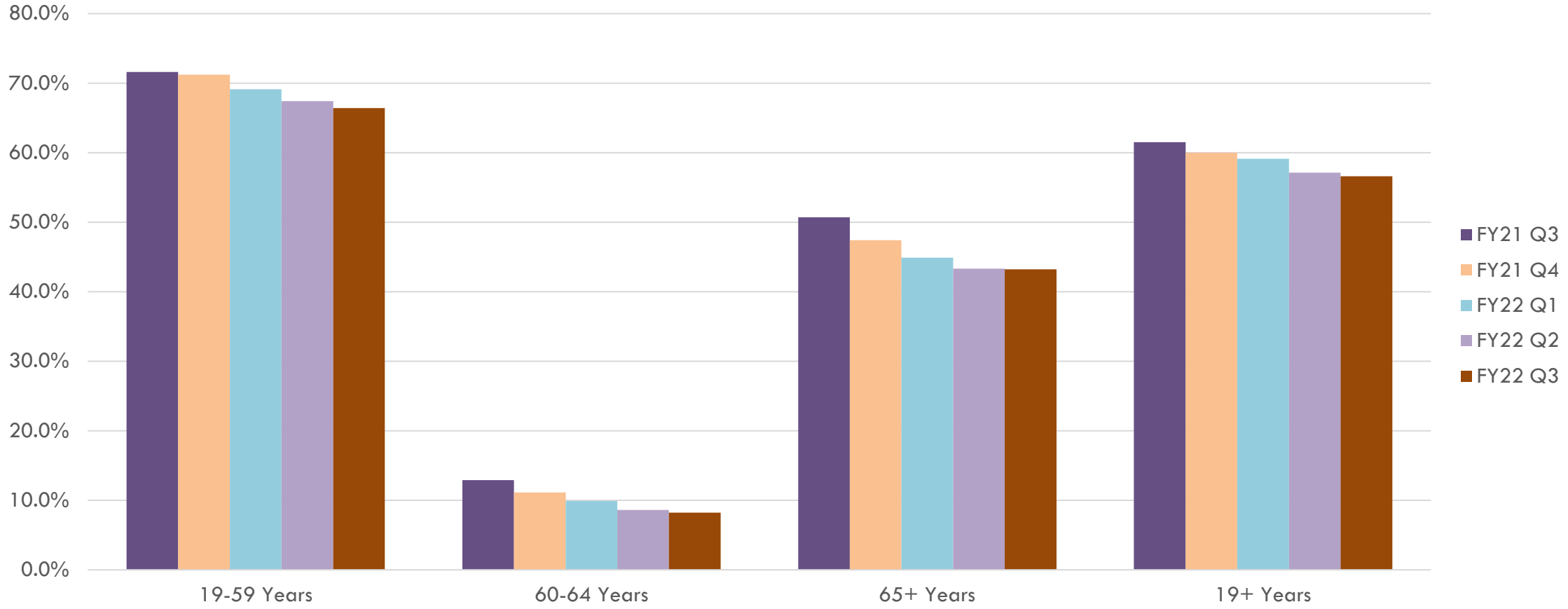
Data source: National Immunization Reporting System (NIRS):
https://www.ihs.gov/NonMedicalPrograms/ihpes/immunizations/index.cfm?module=immunizations&option=home

Adult Vaccine Coverage
IHS National



Data source: National Immunization Reporting System (NIRS):
https://www.ihs.gov/NonMedicalPrograms/ihpes/immunizations/index.cfm?module=immunizations&option=home

Adult Immunization Composite Measures * Appropriately Vaccinated Per Age Recommendations IHS National



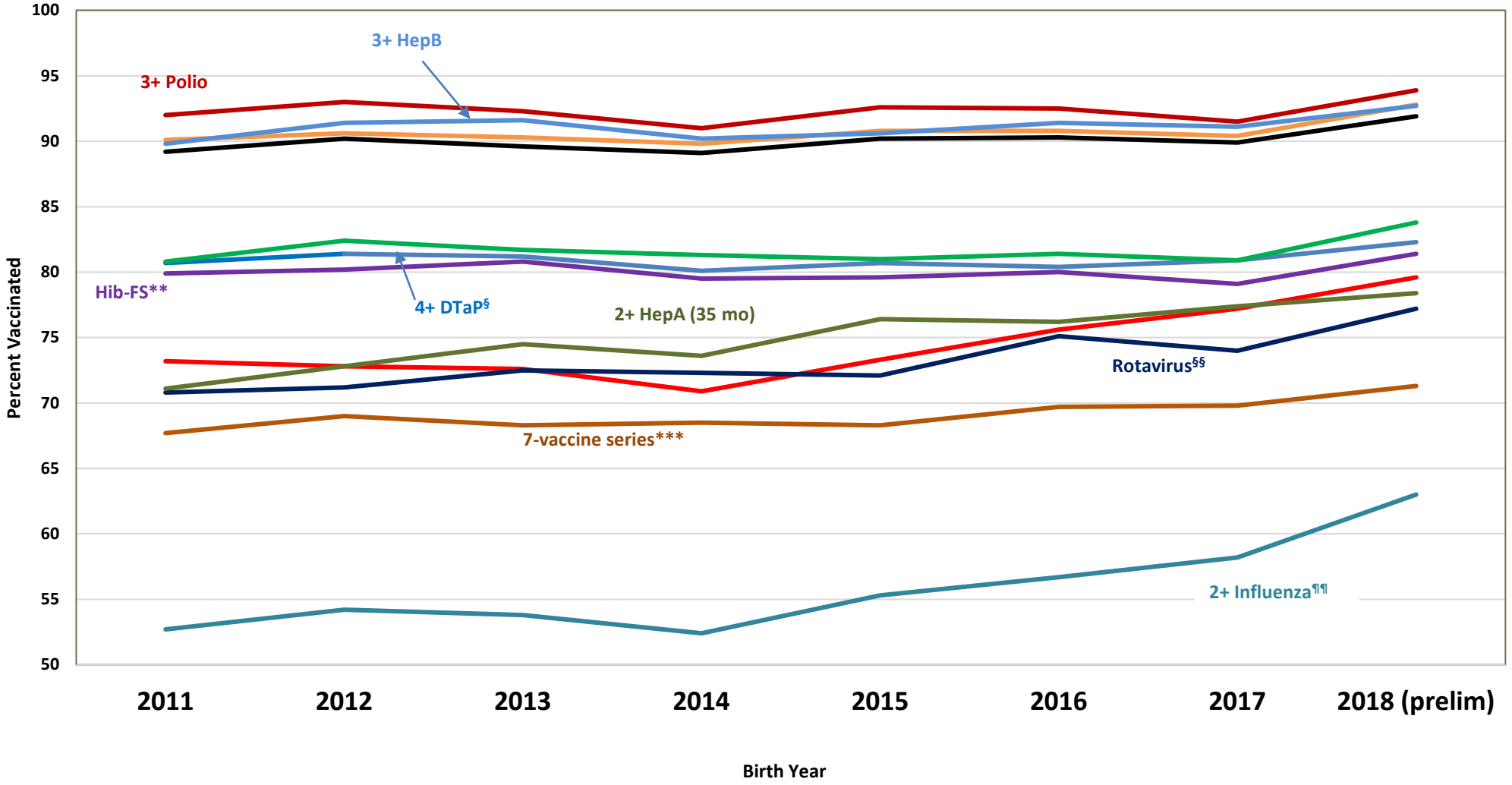
* 19-59 years with Tdap ever and Tdap/Td <10 years; 60-64 years with Tdap ever and Tdap/Td <10 years and Zoster; 65+ years with Tdap ever and Tdap/Td <10 years and Zoster and Pneumo; and 19 years and older with appropriately vaccinated per age recommendation

Data source: National Immunization Reporting System (NIRS):
https://www.ihs.gov/NonMedicalPrograms/ihpes/immunizations/index.cfm?module=immunizations&option=home

NIS

National Immunization Survey

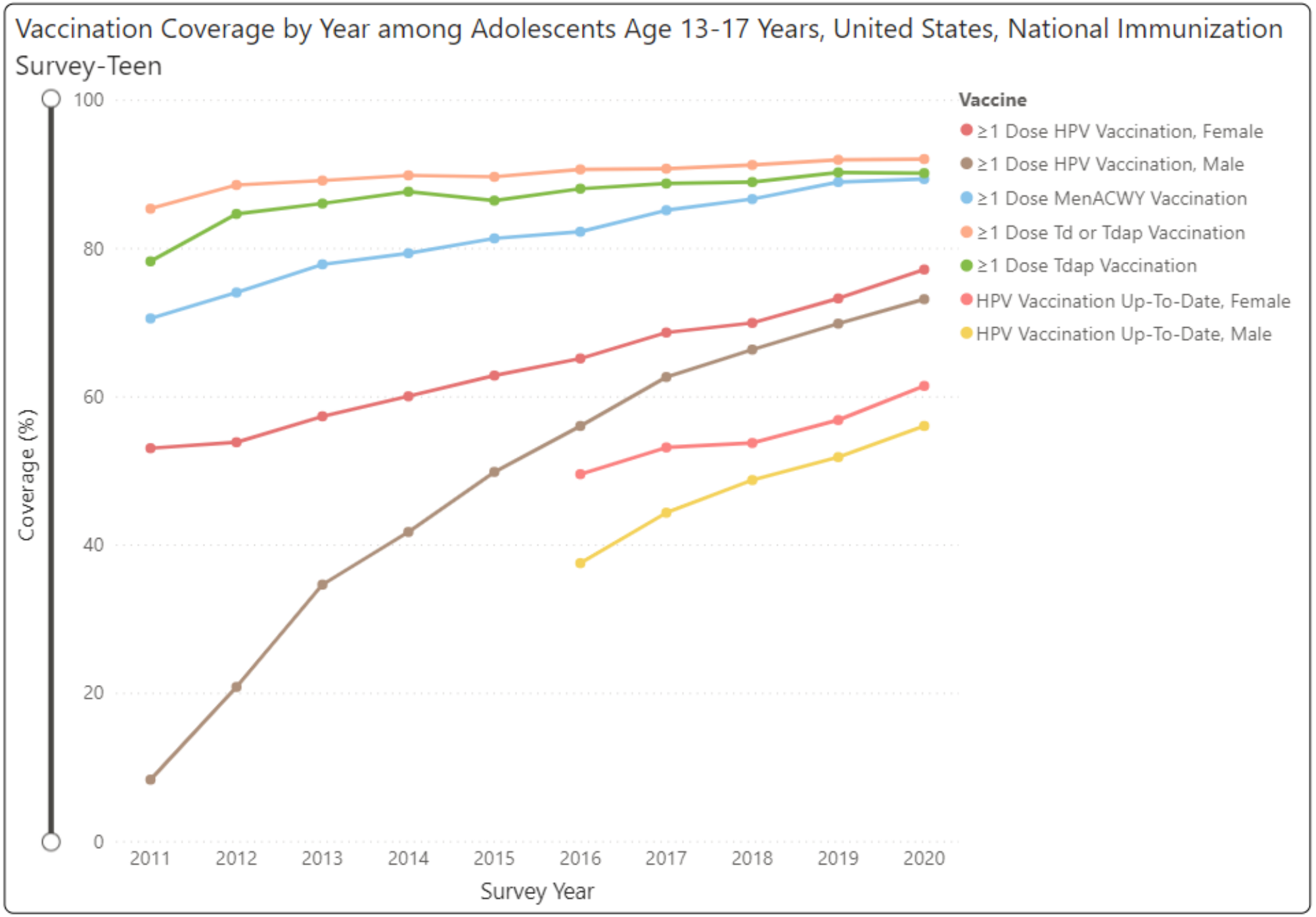
NIS Child


100
95
90
85
80
75
70
65
60
55
50
Percent Vaccinated
3+ HepB
3+ Polio
Hib-FS**
4+ DTaP§
2+ HepA (35 mo)
Rotavirus§§
7-vaccine series***
2+ Influenza¶¶
2011
2012
2013
2014
2015
2016
2017
2018 (prelim)
Birth Year

NIS Child

Vaccine/Dose	Race/Ethnicity						
	White, non-Hispanic (referent)	Black, non-Hispanic	Hispanic	American Indian/Alaska Native, non-Hispanic	Asian, non-Hispanic	Native Hawaiian or other Pacific Islander, non-Hispanic	Multiple Race, non-Hispanic
	(n = 17,236)	(n = 2,126)	(n = 5,731)	(n = 338)	(n = 1,275)	(n = 111)	(n = 2,297)
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
DTaP¶							
≥3 doses	95.0 (94.4-95.6)	91.3 (89.2-93.1)**	92.8 (91.3-94.1)**	87.0 (79.1-92.9)**	96.3 (94.3-97.7)	85.8 (74.9-93.6)	92.2 (89.3-94.5)**
≥4 doses	84.4 (83.3-85.5)	76.1 (72.9-79.1)**	79.1 (76.7-81.3)**	77.1 (68.3-84.8)	86.0 (82.1-89.4)	--††	80.1 (76.6-83.5)**
Poliovirus (≥3 doses)	93.8 (93.1-94.5)	90.4 (88.2-92.3)**	91.9 (90.4-93.3)**	87.0 (79.0-93.0)	96.1 (94.1-97.6)**	85.8 (74.9-93.6)	91.3 (88.4-93.7)
MMR (≥1 dose)§§	93.2 (92.5-93.9)	89.1 (86.8-91.1)**	89.5 (87.5-91.2)**	87.4 (80.2-92.9)	94.6 (92.5-96.3)	88.0 (79.8-94.0)	91.3 (88.6-93.7)
Hib¶¶							
Primary series	94.0 (93.2-94.7)	91.0 (88.9-92.9)**	92.0 (90.5-93.4)**	86.0 (78.1-92.2)**	96.2 (94.3-97.6)**	87.2 (76.6-94.6)	91.9 (89.0-94.2)
Full series	83.7 (82.5-84.8)	75.4 (72.3-78.4)**	76.3 (73.9-78.7)**	77.7 (68.5-85.8)	85.6 (81.3-89.3)	--††	77.9 (74.0-81.6)**
HepB							
Birth dose***	77.2 (75.9-78.5)	75.8 (72.6-78.8)	81.1 (78.9-83.1)**	--††	82.9 (78.2-86.8)**	--††	78.1 (74.3-81.5)
≥3 doses	92.8 (92.0-93.5)	91.3 (89.3-93.0)	90.6 (88.9-92.2)**	84.2 (75.5-91.1)**	94.3 (92.0-96.1)	89.1 (78.9-95.8)	91.5 (88.8-93.8)
VAR (≥1 dose)§§	92.2 (91.3-92.9)	89.3 (87.1-91.3)**	89.2 (87.3-90.9)**	86.8 (79.2-92.7)	94.2 (91.5-96.3)	89.0 (81.1-94.6)	90.2 (87.3-92.7)
PCV							
≥3 doses	93.6 (92.8-94.3)	89.9 (87.8-91.9)**	91.6 (90.1-92.9)**	86.5 (78.7-92.5)	95.4 (93.4-97.0)	85.8 (74.9-93.6)	91.6 (88.7-94.0)
≥4 doses	85.5 (84.4-86.5)	76.4 (73.3-79.3)**	79.6 (77.3-81.8)**	77.8 (69.1-85.4)	85.1 (80.7-88.9)	--††	81.5 (78.0-84.7)**
HepA							
≥1 dose	87.3 (86.2-88.4)	84.9 (82.1-87.4)	87.3 (85.5-89.0)	--††	91.0 (87.9-93.6)**	--††	86.6 (83.3-89.5)
≥2 doses (by 35 months)	77.6 (75.7-79.4)	75.7 (71.2-80.0)	78.5 (74.9-81.8)	--††	84.9 (79.3-89.6)**	--††	74.3 (69.4-79.0)
Rotavirus (by 8 months)†††	79.4 (78.1-80.7)	66.6 (63.1-69.8)**	72.9 (70.4-75.2)**	--††	80.7 (76.2-84.4)	--††	76.5 (72.7-80.0)
Influenza ≥2 doses§§§	66.1 (64.6-67.5)	45.5 (41.9-49.1)**	56.9 (54.2-59.7)**	--††	74.7 (70.2-79.0)**	--††	57.3 (53.0-61.6)**
Combined 7-vaccine series¶¶¶	74.7 (73.3-76.0)	64.7 (61.3-68.1)**	66.3 (63.6-68.9)**	--††	74.2 (69.5-78.7)	--††	68.8 (64.8-72.7)**
No vaccinations	1.0 (0.8-1.3)	1.2 (0.7-1.9)	0.7 (0.4-1.0)**	††	--††	--††	--††

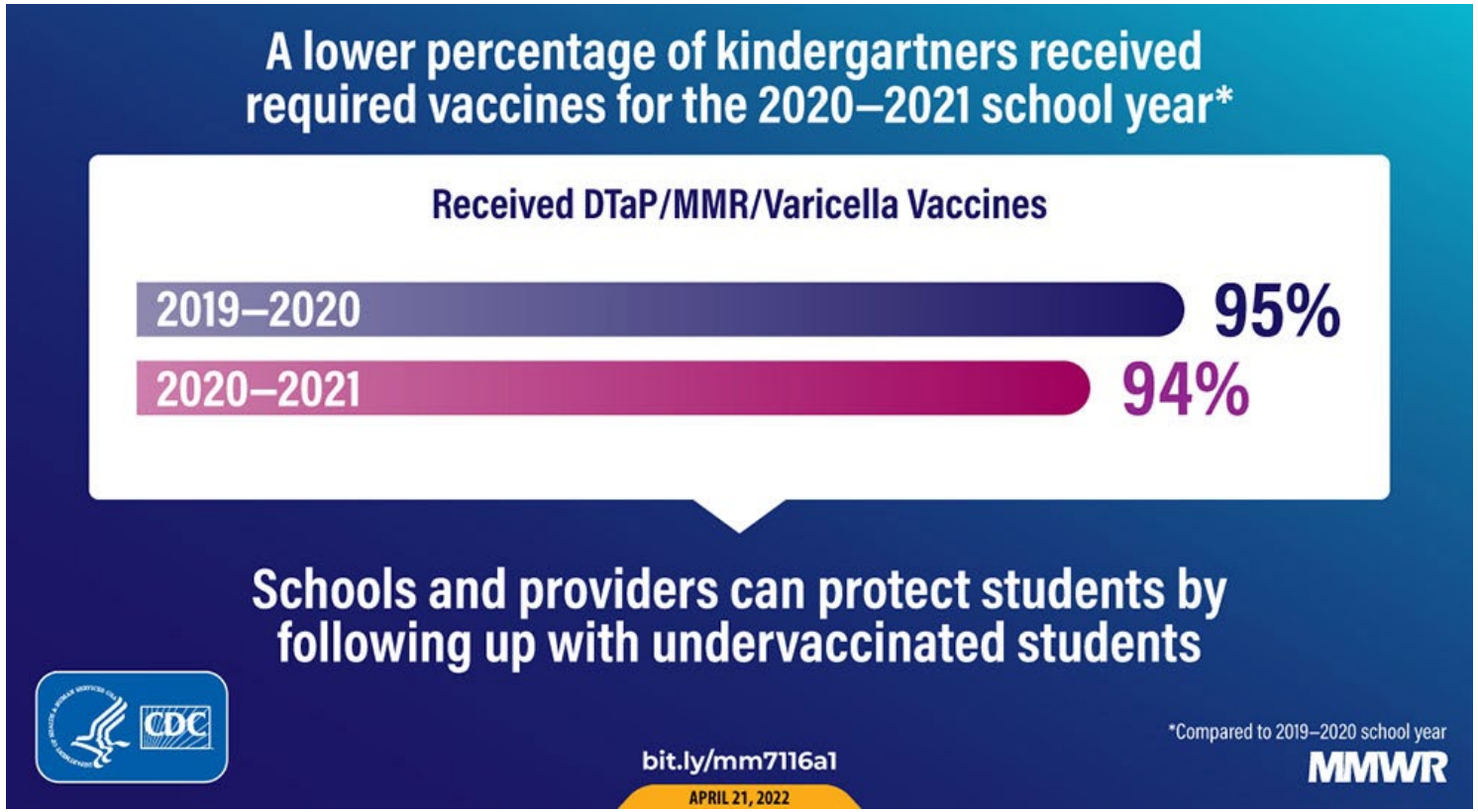
NIS Teen


Vaccination Coverage by Year among Adolescents Age 13-17 Years, United States, National Immunization Survey-Teen
Coverage (%)
100
80
60
40
20
0
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Survey Year
Vaccine
≥1 Dose HPV Vaccination, Female
≥1 Dose HPV Vaccination, Male
≥1 Dose MenACWY Vaccination
≥1 Dose Td or Tdap Vaccination
≥1 Dose Tdap Vaccination
HPV Vaccination Up-To-Date, Female
HPV Vaccination Up-To-Date, Male

NIS Teen

	Race/Ethnicity, % (95% CI)[§]					
	White only, non-Hispanic (n = 12,582)	**Black only, non-Hispanic** (n = 1,671)	**Hispanic** (n = 3,410)	**American Indian/Alaska Native only, non-Hispanic** (n = 252)	**Asian, non-Hispanic** (n = 808)	**Multiracial, non-Hispanic** (n = 1,367)
Vaccines						
Tdap¶ ≥ 1 dose	91.5 (90.6 to 92.4)	89.0 (86.3 to 91.2)	87.6 (84.9 to 89.9) **	88.7 (76.9 to 94.9)	90.8 (87.0 to 93.6)	90.6 (87.5 to 93.0)
MenACWY††						
≥1 dose	89.3 (88.2 to 90.3)	89.4 (87.0 to 91.4)	89.2 (86.4 to 91.4)	93.3 (88.3 to 96.3)	89.2 (84.2 to 92.7)	89.9 (87.1 to 92.2)
≥2 doses§§	58.0 (54.6 to 61.4)	46.8 (38.2 to 55.5) **	52.5 (44.1 to 60.8)	63.8 (42.9 to 80.6)	51.9 (34.1 to 69.2)	47.5 (36.4 to 58.8)
HPV¶¶ vaccine coverage by doses						
All Adolescents						
≥1 dose	71.1 (69.7 to 72.5)	78.1 (74.7 to 81.2) **	80.0 (77.0 to 82.7) **	85.3 (78.4 to 90.3) **	77.2 (71.4 to 82.0) **	77.9 (73.1 to 82.1) **
HPV UTD***	55.4 (53.9 to 56.9)	60.7 (56.9 to 64.4) **	62.7 (59.3 to 66.1) **	66.4 (52.8 to 77.7)	60.9 (54.2 to 67.2)	60.7 (55.7 to 65.5) **
FEMALES						
≥1 dose	72.4 (70.3 to 74.4)	80.0 (75.3 to 84.0) **	84.0 (80.1 to 87.3) **	91.8 (82.5 to 96.4) **	77.0 (68.8 to 83.5)	79.3 (71.2 to 85.6)
HPV UTD	57.1 (54.8 to 59.3)	63.9 (58.4 to 69.0) **	67.9 (62.9 to 72.5) **	71.8 (47.0 to 88.0)	62.6 (53.5 to 70.8)	62.8 (55.1 to 69.9)
MALES						
≥1 dose	69.9 (67.9 to 71.8)	76.1 (71.1 to 80.5) **	76.5 (72.1 to 80.4) **	77.1 (66.7 to 85.0)	77.4 (68.8 to 84.1)	76.3 (70.9 to 80.9) **
HPV UTD	53.8 (51.7 to 55.9)	57.4 (52.0 to 62.6)	58.3 (53.6 to 63.0)	59.5 (47.2 to 70.7)	59.2 (49.2 to 68.5)	58.2 (51.9 to 64.2)
MMR ≥2 doses	93.6 (92.7 to 94.3)	92.7 (90.7 to 94.4)	89.5 (86.9 to 91.7) **	98.3 (95.5 to 99.4) **	91.2 (84.4 to 95.3)	94.3 (92.0 to 96.0)
Hepatitis A vaccine ≥2 doses†††	79.9 (78.6 to 81.0)	80.7 (77.7 to 83.4)	85.4 (82.7 to 87.8) **	94.8 (90.5 to 97.2) **	85.6 (79.2 to 90.3) **	85.4 (81.9 to 88.4) **
Hepatitis B vaccine ≥3	93.9 (93.1 to 94.6)	92.2 (90.3 to 93.8)	89.6 (87.2 to 91.7) **	94.5 (84.9 to 98.1)	92.1 (85.6 to 95.8)	94.9 (92.8 to 96.5)
Among adolescents with no history of varicella:						
≥1 dose vaccine	96.3 (95.6 to 96.9)	95.6 (94.1 to 96.7)	93.7 (91.3 to 95.4) **	99.2 (96.6 to 99.8) **	96.2 (93.5 to 97.8)	96.8 (95.1 to 98.0)
≥2 doses vaccine	93.0 (92.0 to 93.8)	91.0 (88.8 to 92.8)	89.8 (87.0 to 92.0) **	97.6 (94.6 to 98.9) **	90.2 (82.7 to 94.6)	94.6 (92.4 to 96.1)
History of varicella or received ≥2	93.6 (92.7 to 94.4)	91.5 (89.4 to 93.2)	90.7 (88.2 to 92.8) **	97.8 (95.0 to 99.0) **	91.1 (84.2 to 95.2)	94.9 (92.9 to 96.4)

Kindergarten Survey



1% = 35,000 children

Vaccination Coverage with Selected Vaccines and Exemption Rates Among Children in Kindergarten — United States, 2020–21 School Year | *MMWR*

COVID-19

Risk for COVID-19 Infection, Hospitalization, and Death By Race/Ethnicity

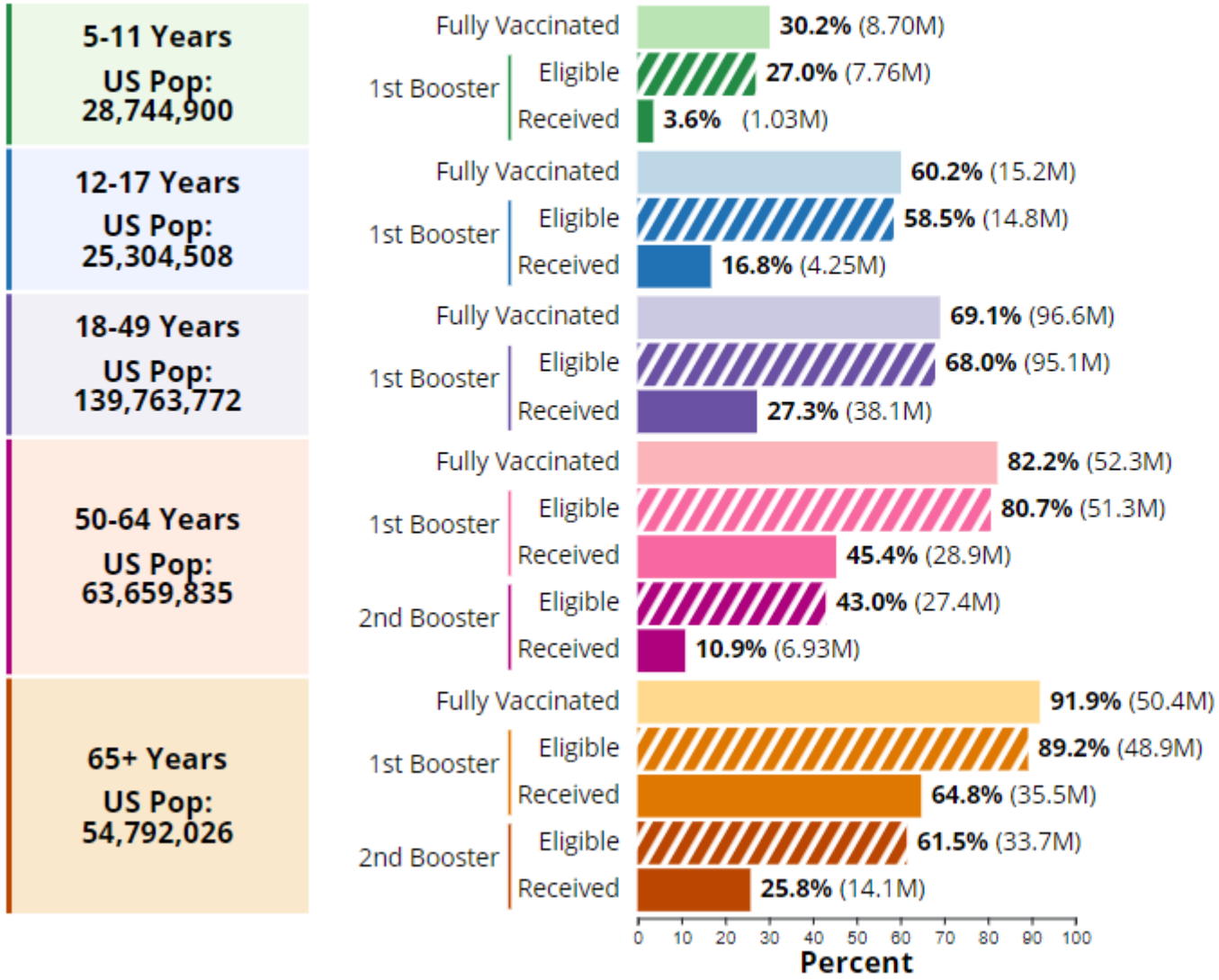
Updated July 28, 2022 Print

Rate ratios compared to White, Non-Hispanic persons	American Indian or Alaska Native, Non-Hispanic persons	Asian, Non-Hispanic persons	Black or African American, Non-Hispanic persons	Hispanic or Latino persons
Cases[1]	1.5x	0.8x	1.1x	1.5x
Hospitalization[2]	2.8x	0.8x	2.2x	2.1x
Death[3, 4]	2.1x	0.8x	1.7x	1.8x

Risk for COVID-19 Infection, Hospitalization, and Death By Race/Ethnicity | CDC

COVID Data Tracker

Primary Series Completion, Booster Dose Eligibility, and Booster Dose Receipt by Age, United States



https://covid.cdc.gov/covid-data-tracker/#vaccinations_vacc-people-onedose-pop-total

Let's Celebrate… Week 88!

- **COVID-19 vaccine available to all!**
  - More than 800 million doses delivered
  - More than 607 million doses administered
- **Total COVID-19 vaccine doses administered: 607 million**
  - 261.9 million people have had at least one vaccine dose
  - 29.6 million children (ages <18) have had at least one dose
  - 862+ thousand children <5 years of age have had at least one dose
  - 223.5 million people *fully vaccinated*
  - 199.3 million adults (ages 18+) *fully vaccinated*
- **Boosters administered**
  - 108 million first boosters
  - 22.3 million second boosters

American Indian/Alaska Native Vaccination Rates

Data reflective of 8/9/22 for I/T/Us within the IHS jurisdiction

AI/AN Age Group	Received at Least One Dose	Fully Vaccinated	% Fully Vaccinated Who Received (3rd & Any Booster) Doses
Age 65+	90.3% (133,729)	70.9% (105,026)	60.8% (63,888)
Age 18+	75.8% (646,080)	56.8% (484,658)	46% (223,019)
Age 12-17	51.6% (75,393)	36.5% (53,293)	29% (15,452)
Age 5-11	23% (41,632)	17% (30,816)	10.3% (3,181)
Age <5	2.3% (2,604)	0	N/A

- Rates are gradually increasing in all categories and age ranges
- Notable increases in past 30 days:
  - Adolescents 12-17 yrs
    - 1st doses ↑ 1.2% (~1,800 doses)
    - Boosters ↑ 4.2% (~2,200 doses)
  - Pediatrics 5-11 yrs
    - 1st doses ↑ 1.4% (~2,400 doses)
    - Boosters ↑ 5.7% (~1,800 doses)
  - Pediatrics 0-4 yrs
    - 1st doses ↑ 2% (~2100 doses)

Data Considerations: All data is from the IHS COVID-19 Dashboard

- Second boosters are not yet displayed separately in the IHS COVID-19 Dashboard
- A significant number of administered doses have been given to "Unknown Race". Areas are actively working to determine if race data can be recovered.
- Some AI/AN patients may have been vaccinated outside of IHS facilities that chose the IHS for vaccination; these doses are not reflected in this data.

IHS Vaccine Task Force Activity

Two FDA & CDC Fully Approved COVID-19 Vaccines

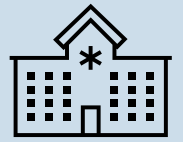
- Pfizer (Comirnaty®) vaccine fully approved age 16+
- Moderna (Spikevax®) vaccine fully approved age 18+
- Boosters, additional doses and doses for children under the FDA licensed ages are available under an Emergency Use Authorization (EUA)

Vaccination Rates and Boosters

- Vaccination rates continue to incrementally increase
- Vaccination is recommended for EVERYONE 6 months+
- Boosters are recommended for EVERYONE 5 years+
- NEW FALL BOOSTERS - Expected early September

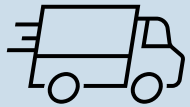
Distribution

- Vaccines are widely available across Indian Country
- Ample supply available of Pfizer, Moderna, Janssen/J&J and Novavax



357

I/T/Us receiving vaccine from IHS



3.28 million

Doses Delivered

Over 2.26 Million Doses Administered!

Fall Boosters: Variant Formulations

- Pfizer/Moderna have developed COVID-19 bivalent boosters that include an Omicron BA.4 and BA.5 valence.
  - Pfizer/FDA EUA is pending; doses for people ages 12+ (Pfizer) and 18+ (Moderna)
  - At least one vaccine for the younger pediatric populations will follow
  - Roll out in September will align with seasonal influenza vaccine administration
  - These will be new vaccine products and are expected to be widely recommended

- Will replace all current boosters
- Maintain primary series footprint! Need that before receiving booster
- Spacing and timing between boosters not yet known

Call to action

NATIONAL IMMUNIZATION AWARENESS MONTH

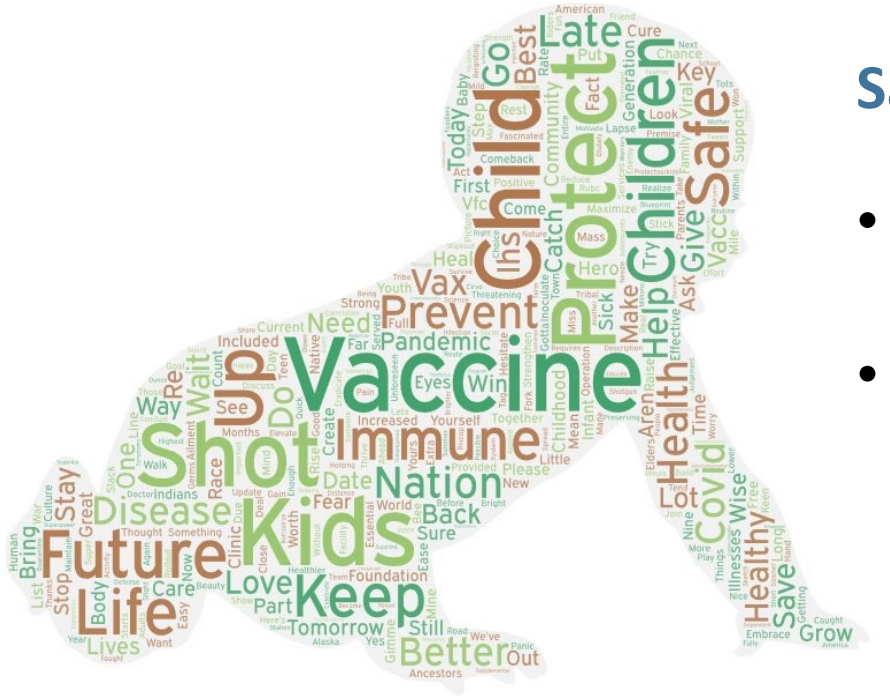
HHS Catch-up to Get Ahead

- Launched August 2020
- Focused on childhood 7-series
- Resources include social media toolkits
- Impactful activities:
  - Use EHR and IIS to assess coverage
  - Expand access to vaccines
  - Increase communication to parents

Twitter | Facebook | Instagram

https://www.hhs.gov/immunization/catch-up/index.html

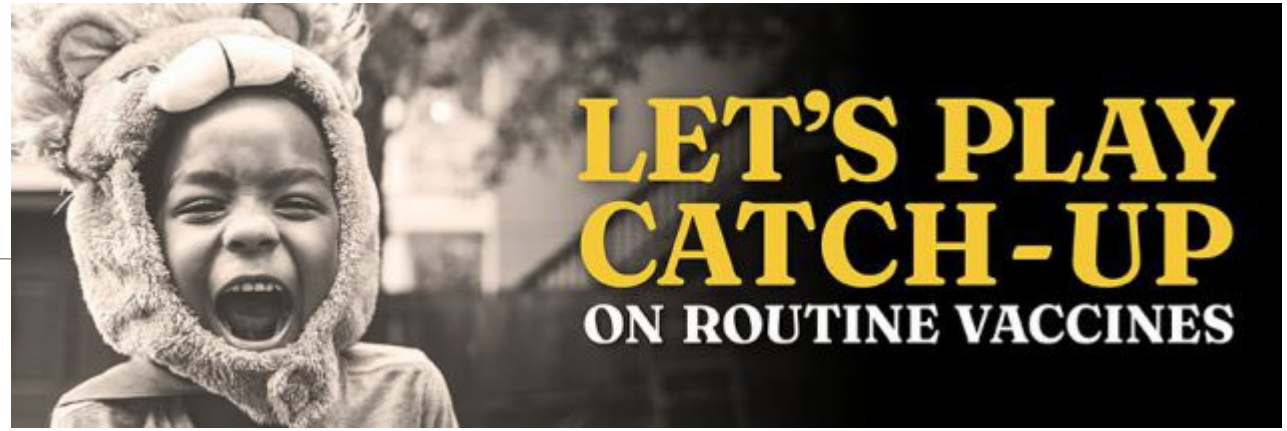
IHS Pediatric Immunization Improvement Initiative



Safeguard our Future: Protect Tomorrow, Vaccinate Today

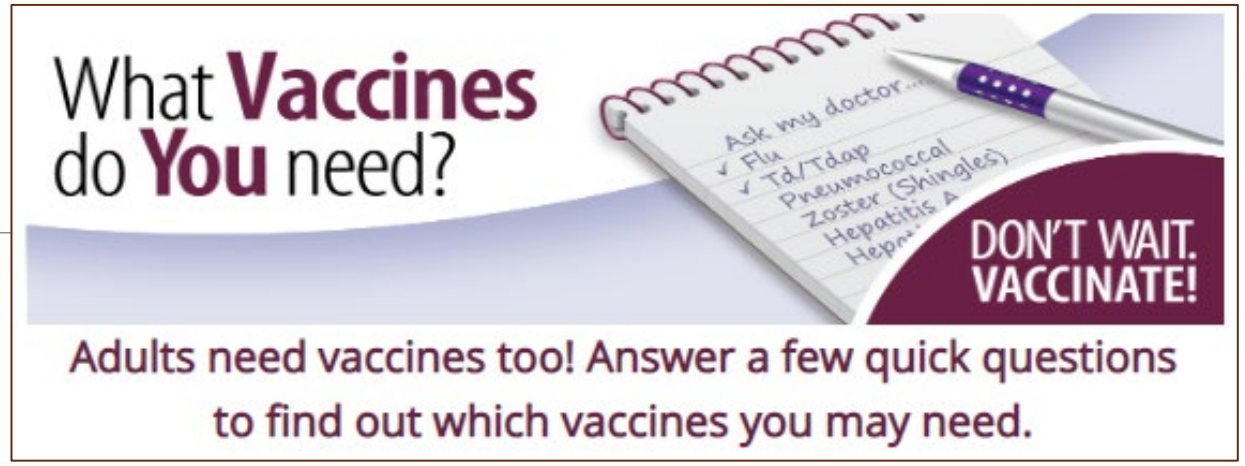
- QI initiative
- Focused on improving childhood rates & coordinating teen vaccines with COVID-19 vaccines

Call to Action



- Routine vaccines + COVID-19 vaccines/boosters
- Excellent opportunity to address all childhood vaccines
  - Vaccine rates for routine vaccines are still lagging from the effects of the pandemic
  - Leverage back-to-school to update due or overdue vaccines during routine care
    - Sports Physicals and Headstart physicals
    - Annual check-ups and well child visits
    - Utilize targeted and widespread outreach to families

Call to Action



- Seasonal Vaccines
  - Influenza vaccine each fall
  - NEW COVID-19 variant booster

- Routine Vaccines
  - Hepatitis B vaccine recommended for **every** adult <60 yrs now and certain individuals > 60 yrs
  - Pneumococcal vaccines - new recommendations are in place
  - Tetanus boosters are due every 10 years
  - Shingles vaccine is recommended for EVERY adult ≥ 50 yrs and certain individuals with weakened immune systems that are 18-49 yrs

https://www2.cdc.gov/nip/adultimmsched/

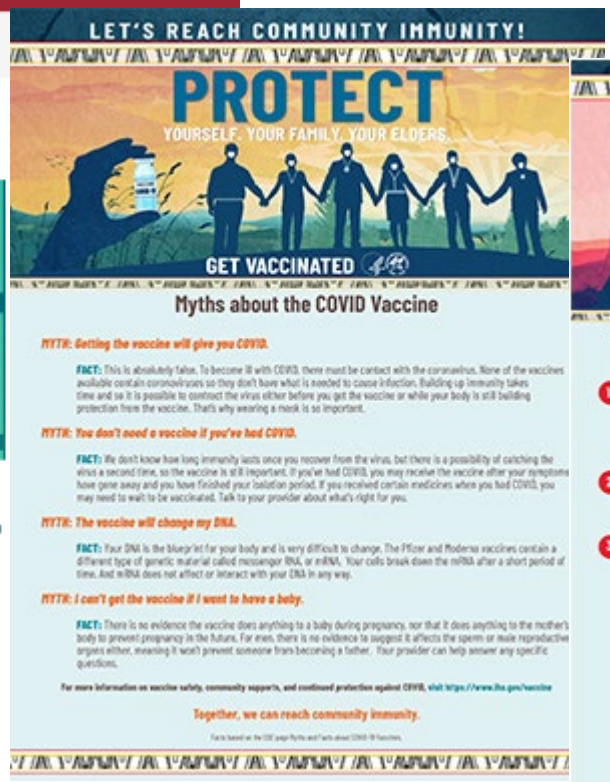
Call to Action:

Add Routine & COVID-19 Vaccinations to the Back-to-School Checklist

- Send reminders to families whose children are behind on well-child visits and routine vaccination.
- Notify families when children are eligible for COVID-19 vaccines. Tell them where they can find COVID-19 vaccines for their children if they're not offered in the office or clinic.
- Offer vaccination-only appointments or hold vaccination clinics.
- Administer COVID-19 vaccines at the same time as other routinely recommended vaccines, if recommended and appropriate.

Photo Sources: https://www.today.com/health/covid-19-vaccine-health-care-workers-share-photos-t204282, https://www.dailynews.com/2020/12/14/first-wave-of-coronavirus-vaccines-arriving-across-southern-california/photos sent by people who received vaccine including Naomi Tepper and Dana Meaney-Delman

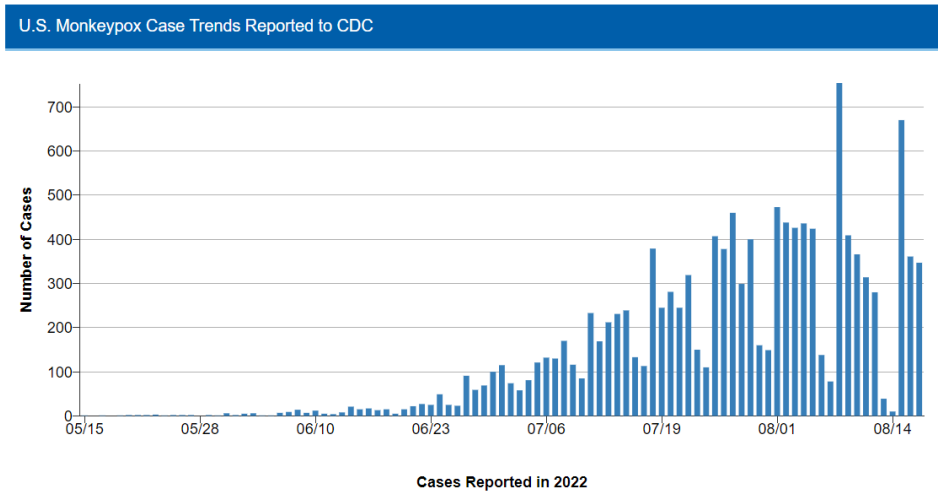
IHS Resources



References: Vaccine | Indian Health Service (IHS)

Emergency Responses

There's more than COVID!



- Monkeypox
  - Risk-based recommendation
  - Not routinely recommended
- Polio
  - Routine recommendation
  - Check your vaccination status!

https://www.cdc.gov/poxvirus/monkeypox/response/2022/mpx-trends.html

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