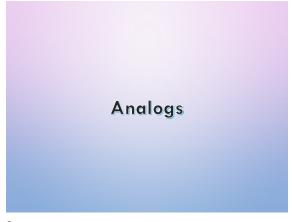


DISCLOSURE

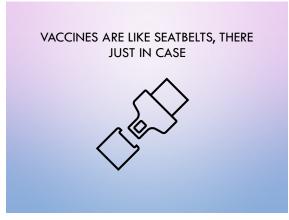
 \* AMY BACHYRYCZ – NOTHING TO DISCLOSE

 \* SPECIAL THANKS TO DR. MELISSA MARTINEZ AND DR. MELISSA MASON FOR ALLOWING USE OF THEIR ANALOG AND DATA CONTENT



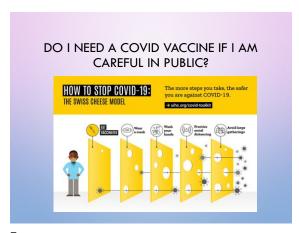


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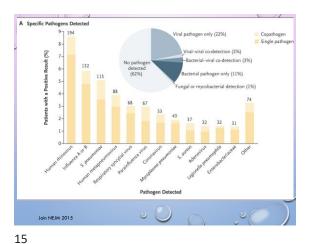


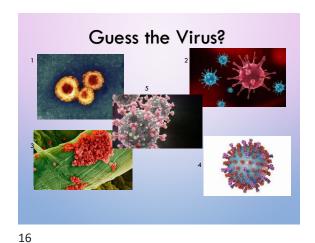


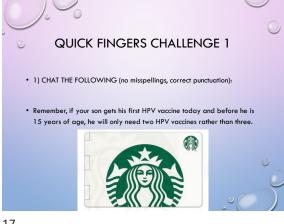


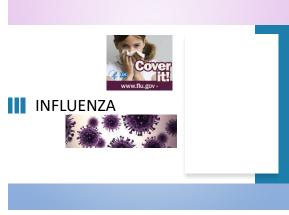
**OBJECTIVES** 1) Discuss and define new ACIP recommendations for existing vaccines. 2) Identify interactive case-based scenarios to best utilize the ACIP schedule for the most up to date vaccine recommendations. 3) Identify patients that may benefit from updated ACIP vaccine recommendations. 4) Review any laws or legal implications that may impact vaccinations state and/or federally.

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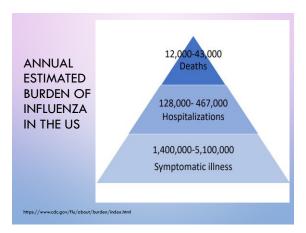




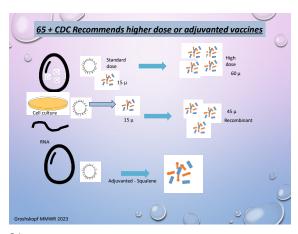


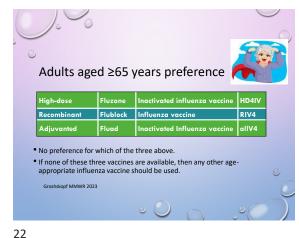


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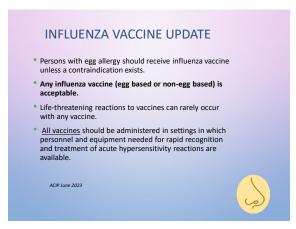


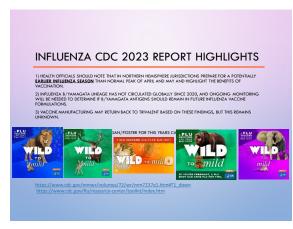






21 2





23 24

2024 ACIP CHILDHOOD SCHEDULE Table 1 Diphtheria, tetar (DTsP <7 wr) Influenza (IIVE) Totanus, dipheheria, (Tdap x7 yrs) Haningococcal B (HanB-4C, HanB-FHbp

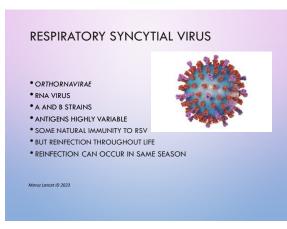
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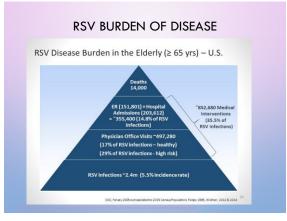
2024 ACIP ADULT SCHEDULE

26









29 30

RSV VACCINE — SUBUNIT VACCINE

• PFIZER RSVPREF ABRYSVO®

• GSK RSVPREF3 AREXVY®

Efficacy of 1 does of DSX respiratory syncytici virus ESVyer63 vaccine against respiratory syncytici virus—associated disease among adults aged 2:00 years — multiple countries, 2021–2023

Vaccine efficacy against outcome

ESV-associated LRTD

ESV-associated LRTD

Session 2

5.0 (27.5-9-4.1)

5.0 (27.5-9-8.0)

EFF consociated LRTD

ESV-associated LRTD

ESV-associated Medically amended LRTD

EFF consociated LRTD

EFF consociated LRTD

EFF consociated LRTD

EFF consociated disease among adults aged 2:60 years
— multiple countries, 2021–2023

Vaccine efficacy against outcome, % (95% CI)\*

Efficacy or 1 does of Pitzer respiratory syncyticil virus ESVyer6\* vaccine against respiratory syncyticil virus—associated disease among adults aged 2:60 years
— multiple countries, 2021–2023

Vaccine efficacy against outcome, % (95% CI)\*

Efficacy evaluation period

EFF consociated medically amended LRTD

Session 1

EFF consociated medically amended LRTD

Session 1

EFF consociated medically amended LRTD

Session 1

EFF consociated medically amended LRTD

Session 2 (interim)

7.6 (23.2-96.1)

Combined sessions 1 and 2 (interim)

EFF consociated medically amended LRTD

Session 2 (interim)

EFF consociated medically amended LRTD

Session 1

EFF consociated medically amended LRTD

Session 2 (interim)

EFF consociated medically amended LRTD

Session 1

EFF consociated medically amended LRTD

Session 2 (interim)

EFF consociated medically amended LRTD

Session 3 (interim)

EFF consociated medically amended LRTD

Session 2 (interim)

EFF consociated medically amended LRTD

Session 3 (interim)

EFF consociated medical

31 32

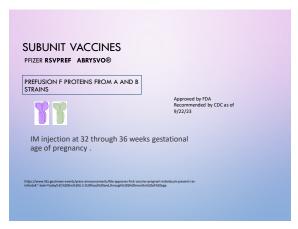
Side Effects RSVpreF RSVpreF3 Pain 10.5% 60% Redness 2.7% 5.5% Swelling 2.4% 7.5% RSVPreF RSVPreF3 1.4%(>38.9°C <0.1%) 2%(>39°C 0.1%) Fatigue 15.5% (Severe 0.3%) 33% (Grade 3 1.7%) Headache 12.8% (Severe 0.1%) 27.2%(Grade 3 1.3%) Muscle aches 10.1% (Severe 0.2%) 28.9%(Grade 3 1.4%) Joint pain 7.5% (Severe<0.1%) 18.1%(Grade 3 1.3%) 3.4% Not reported Vomiting 0.9% Not reported

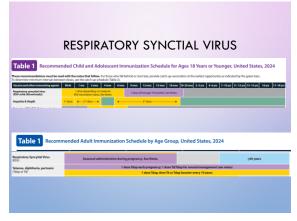
SERIOUS ADVERSE EVENTS

RSVpreF Pfizer
20,255 participants 3 Neurologic Events
Guillain-Barré Syndrome 7 days after vaccination
Miller Fisher Syndrome reported 8 days after vaccination
Undifferentiated motor-sensory axonal polyneuropathy—preexisting worsening
Background rate Guillain-Barré Syndrome 1.5-3 per 100,000

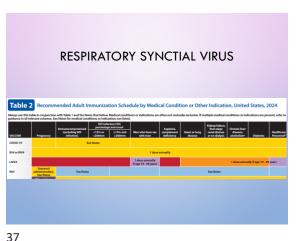
MMWWR July 2023

33



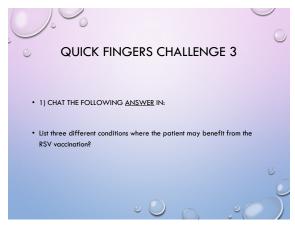


35 36



MOST LIKELY TO BENEFIT Lung disease (such as chronic obstructive pulmonary disease and asthma) Cardiovascular diseases (such as congestive heart failure and coronary artery Moderate or severely immune compromised Diabetes mellitus Neurological or neuromuscular conditions Kidney disordersLiver disorders Hematologic disorders Other underlying conditions that a health care provider determines might increase the risk for severe respiratory disease • Frailty Advanced age Residence in a nursing home or other long-term care facility Other underlying factors MMWR July 2023

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PRETERM BIRTH RISK **FDA** • DATA INSUFFICIENT TO ESTABLISH OR EXCLUDE A CAUSAL RELATIONSHIP BETWEEN PRETERM BIRTH AND RSVPREF. \* AVOID THE POTENTIAL RISK OF PRETERM BIRTH WITH USE OF ABRYSVO BEFORE 32 WEEKS OF GESTATION, ADMINISTER ABRYSVO AS INDICATED IN PREGNANT INDIVIDUALS AT 32 THROUGH 36 WEEKS GESTATIONAL AGE https://www.fda.gov/news-events/press-announcements/fda-approves-first-vaccine-pregnant-individus infantsis:::taxt=Todar/k/2C%20the%20U.5.%20Food%20und,through%205%20months%20c7%20age.

39 40

CONCERNS WITH RSV PREF VACCINE IN **PREGNANCY**  VACCINE PROTECTION MAY WANE MORE QUICKLY SOME INFANTS MAY NOT GET FULL PROTECTION FROM MATERNAL VACCINATION IF THEY WERE BORN TOO SOON AFTER IMMUNIZATION, BORN PREMATURELY OR DUE TO MATERNAL DISEASE • MAY INTERFERE WITH THE EFFECTIVENESS OF TDAP IF GIVEN TOGETHER • BOTH VACCINE AND NIRSEVIMAB ARE NOT NEEDED

**CONSIDERATIONS** Nirsevimab in infant with in one week of birth RSV PreF in Mother at 32-36 weeks gestation \*NOT Both

41 42



NIRSEVIMAB CONCERNS

CAN GIVE WITH OTHER VACCINES
COST
VFC COVERAGE
HOW WILL IMMUNIZATION DATABASE KNOW
DID MOTHER GET RSV VACCINE
REPORTING ADVERSE EVENTS FAERS NOT VAERS
EXCLUDED FROM PHARMACIST PRESCRIBING PROTOCOL

43 44



ANNUAL ESTIMATED BURDEN
OF PNEUMOCOCCAL IN THE US

Pneumococcal pneumonia hospitalizes about 150,000 people in the
US each year—killing about 5-7%, or 1 in 20 of those infected.
The death rate is even higher among adults age 65 years and older
and people with certain medical conditions or other risk factors.
Pneumococcal meningitis and bacteremia killed approximately 3,250
people in the United States in 2019.

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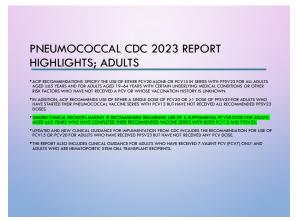
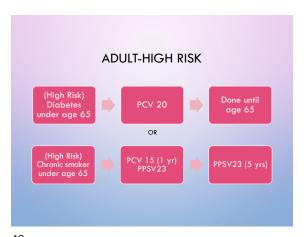
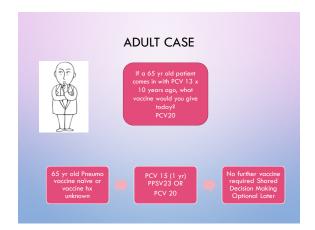


Table 1 Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger, United States, 2024

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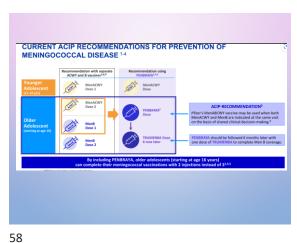


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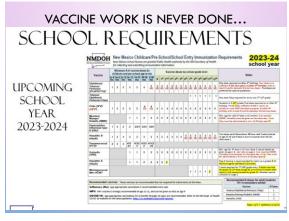








57





59 60



COVID-19 STILL A PROBLEM

COVD-19 New Hought Admissions, by Week, in The United States, Reported to CCC

TOTAL STATE OF THE PROBLEM AND THE PROBLEM STATES AND T

61 62

# LEGISLATION AFFECTING VACCINE ACCESSIBILITY IN THE LAST 30 YEARS

- 1) Vaccines For Children program (VFC) was passed in 1994. VFC ensures that children in low-income families can receive all recommended vaccines for only a small administration fee. More than 60 percent of the vaccines given to children are paid for by VFC.
- 2) Affordable Care Act (ACA) in 2010. The ACA required private insurance companies to make many preventive services, including vaccines, free to beneficiaries.
- 3) Inflation Reduction Act (IRA). The IRA received bipartisan support to address high prescription drug costs for seniors.



64

63

## CONTINUING GAPS IN VACCINE ACCESSIBILITY

- One out of 10 adults on Medicare do not subscribe to a Part D plan, so they may still have to pay for many recommended vaccines.
- Additionally, it is difficult for clinics and offices to contract with all Medicare Part D plans.
- If there is no contract or they do not carry vaccines, the patient has to go to a pharmacy to be vaccinated.

## INFLATION REDUCTION ACT



- The new law makes changes to Medicare Part D drug benefits, including putting a limit on out-of-pocket payments for insulin and making vital vaccines free.
- Starting on Jan. 1, 2023, Medicare enrollees won't have any out-of-pocket costs for CDC recommended vaccines for adults.
- Medicare Part B, which applies to doctor visits, diagnostic tests and other outpatient services, already fully covers some vaccines, including flu shots, pneumonia vaccines, hepatitis B inoculations and now coronavirus vaccines (initial shots as well as boosters).
- But other vaccines, most notably the more expensive vaccines, are covered under the Part D prescription drug plans without a co-pay. The new law eliminates co-pay or cost-sharing. (Projected to affect 4.1 million people)

## QUICK FINGERS CHALLENGE 5

- IT IS JANUARY, A JUST-TURNED 65 YEAR OLD PATIENT COMES TO THE PHARMACY FOR "THEIR SHOTS" AND WITH A NEW DIAGNOSIS OF DIABETES, WHAT VACCINES WOULD YOU RECOMMEND FOR THEM? THEY HAVE NO RECORDS OF PREVIOUS VACCINATIONS EVER!
- PLEASE CHAT THE CORRECT ANSWER IN:

65 66

## QUICK FINGERS CHALLENGE 5 ANSWER

- IT IS JANUARY, A JUST-TURNED 65 YEAR OLD PATIENT COMES TO THE PHARMACY FOR VACCINES AND WITH A NEW DIAGNOSIS OF DIABETES, WHAT VACCINES WOULD YOU RECOMMEND FOR THEM? THEY HAVE NO RECORDS OF PREVIOUS VACCINATIONS EVER!
- CORRECT: INFLUENZA, COVID, PNEUMOCOCCAL, RSV, TDAP, SHINGRIX
- PROVISIONALLY CORRECT: HEP A, HEP B, MMR, MENINGOCOCCAL
- INCORRECT: MPOX, VARICELLA, DTAP, MENINGOCOCCAL B, HIB

## **SUMMARY**

- Keeping track of vaccine updates and updated notes are important for providers.
- Expanded ACIP schedule changes have been implemented in new guidelines and schedules.
- There will be many more changes and updates to vaccines in coming

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#### **REFERENCES**

- GROHSKOPF LA, BLANTON UH, FERDINANDS JM, CHUNG JR, BRODER KR, TALBOT HK, PREVENTION AND CONTROL OF SEASONAL INFLUENCE WHITE OF MAINTEEN UNAMINITATION PRACTICES UNITED SHIPLE OF MAINTEEN UNAMINITATION PRACTICES UNITED SHIPLE JOBOLOGICE JULI 1855 AMMERICA JOMA REP 20237 JUNG. RF. 21–22. DOI:

  HTTP://DUDDOLOGIC.JULI 1855 AMMERICATION OF MAINTEEN JOBOLOGICA JULI 1855 AMMERICATION OF MAINTEEN JOBOLOGICA JULI 1855 AMMERICATION OF MAINTEEN JOBOLOGICA JULI 1855 AMMERICATION OF MAINTEEN JULI 1855 AMME
- Jain S, Self WH, WUNDERINK RG, ET AL. COMMUNITY. ACQUIRED PNEUMONIA REQUIRING HOSPITALIZATION AMONG U.S. ADUITS. N ENGL J MED. 2015;373(5):415-427. DOI:10.1056/NEJMOA150024
- MAZUR NI, TERSTAPPEN J, BARAL R, ET AL RESPIRATORY SYNCYTIAL VIRUS PREVENTION WITHIN REACH: THE VACCINE AND MONOCLONAL ANTIBODY LANDSCAPE. LANCET INFECT DIS. 2023;23(1):E2-E21. DOI:10.1016/S1473-3099(22)00291-2
- PAPI A, ISON MG, LANGLEY IM, ET AL. RESPIRATORY SYNCYTIAL VIRUS PREFUSION F PROTEIN VACCINE IN OLDER ADULTS. N ENGL J MED. 2023;388(7):595-608. DOI:10.1036/NEIMOA2209604
- MELGAR M, BRITTONA, ROPER LE, ET AL. USE OF RESPIRATORY SYNCYTIAL VIRUS VACCINES IN OLDER ADULTS.
   RECOMMENDATIONS OF THE ADVISORY COMMITTEE ON IMMUNIZATION PRACTICES.—UNITED STATES, 2023. MMWR MORB MORFAL WIKLY REP 2023/2-29-8-01. DOI: HTTP://DX.DOI.ORG/10.15383/MMWR.MW7.292
- KAMPMANN B, MADHI SA, MUNJAL I, ET AL. BIVALENT PREFUSION F VACCINE IN PREGNANCY TO PREVENT RSV ILLNESS IN INFANTS. N ENGL. J MED. 2023;388 (16):1451-1464. DOI:10.1036/NEJMOA2216480