Indiana Department of Health

CLINICIAN UPDATES

GUY CROWDER, M.D., MPHTM
CHIEF MEDICAL OFFICER

9/27/2024

OUR MISSION:

To promote, protect, and improve the health and safety of all Hoosiers.

OUR VISION:

Every Hoosier reaches optimal health regardless of where they live, learn, work, or play.

Conflict of interest

I have no conflicts of interest to disclose

CMEs

CME credits are available for physicians participating in this webinar.

Once you complete the REDCap survey (link will be added to the chat during the Clinician Update), the IDOH enters your name into the Accreditation Council for Continuing Medical Education (ACCME) Program and Activity Reporting System (PARS). PARS is your entry point into the digitized world of CME.

To access the CME credit from this webinar, please go to PARS - ACCME (This will allow you to monitor CMEs awarded and entered into ACCME's PARS) and/or Homepage (cmepassport.org) (This will allow you to monitor CME credits and find other available opportunities to gain CMEs.)

Indiana Department of Health

BOTULISM RESPONSE FOR HEALTHCARE PROVIDERS

NICOLE STONE, MPH
INFECTIOUS DISEASE EPIDEMIOLOGY & PREVENTION DIVISION

9/27/2024

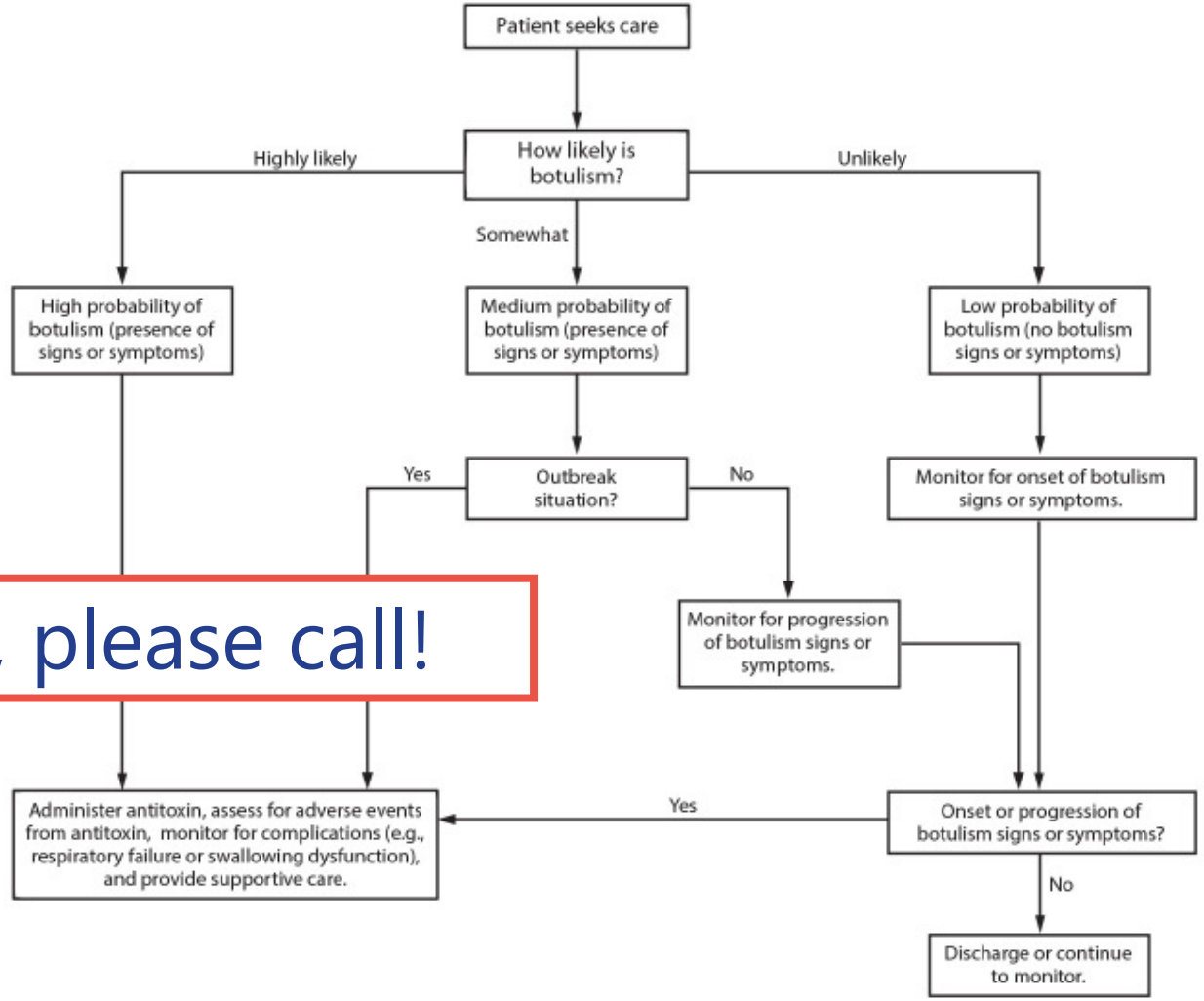
Reporting Suspect Botulism

- Botulism is **immediately reportable upon suspicion** per 410 IAC 1-2.5-75 & 76
  - First reports SHOULD NOT be through NBS
  - **Please call to report!**
- We cannot do rule-out testing for botulism. If we're testing, we're treating
- Decision to treat is based on clinical presentation and is made by the physician along with IDOH and CDC
- IDOH & CDC need to authorize release of antitoxin should a patient truly need it.

Whom to Contact

Contact Type	Name	Phone Number
Indiana Department of Health	Enteric Epidemiologist Epi on Call (After Hours)	(317) 233-7125 (317) 233-1325
Non-Infant Patients	CDC Emergency Operations Center	(770) 488-7100
Infant Patients	California Department of Health Infant Botulism Treatment & Prevention Program	(510) 231-7600

Medical Decision Making



When in doubt, please call!

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Botulism Anti-Toxin (BAT) Logistics

Consult with CDC & IDOH

CDC releases antitoxin from nearest Quarantine Station (Chicago); coordinates shipment

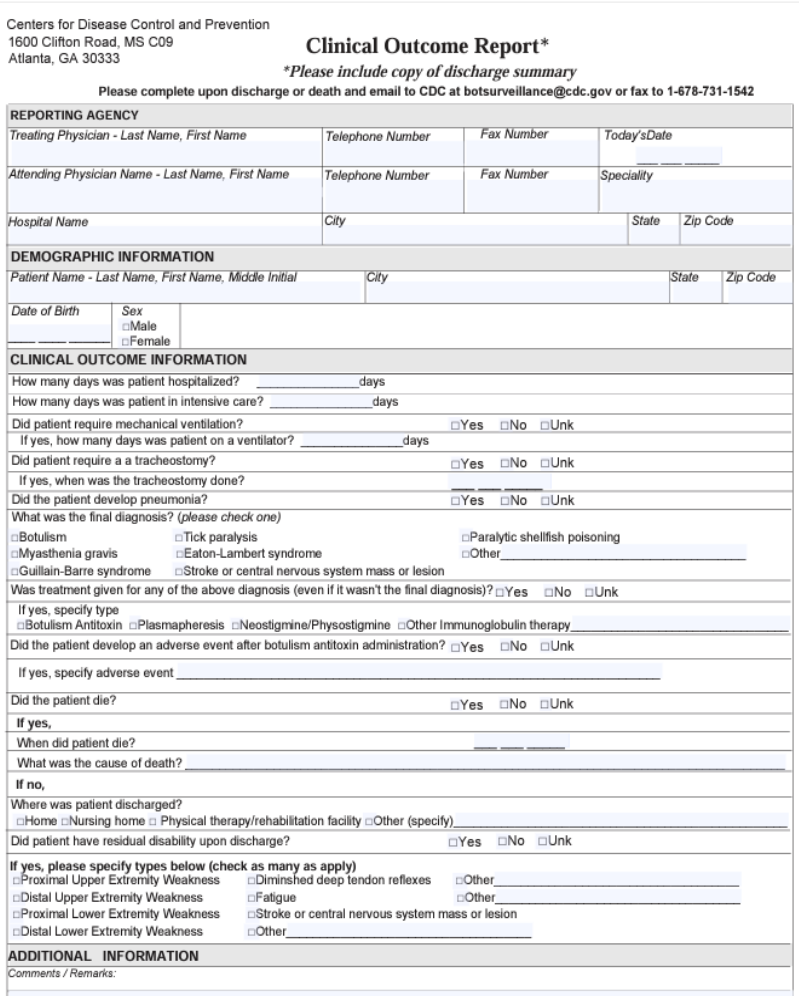
Antitoxin arrives at healthcare facility to be administered by treatment team (clinician, pharmacist, etc.)

Indiana Department of Health

Anti-Toxin Administration and Actions

[Preparing and Administrating Heptavalent Antitoxin for the Treatment of Botulism]

Low Resolution Video



Centers for Disease Control and Prevention
1600 Clifton Road, MS C09
Atlanta, GA 30333

Clinical Outcome Report*

**Please include copy of discharge summary*

Please complete upon discharge or death and email to CDC at botsurveillance@cdc.gov or fax to 1-678-731-1542

REPORTING AGENCY

Treating Physician - Last Name, First Name | *Telephone Number* | *Fax Number* | *Today'sDate*

Attending Physician Name - Last Name, First Name | *Telephone Number* | *Fax Number* | *Speciality*

Hospital Name | *City* | *State* | *Zip Code*

DEMOGRAPHIC INFORMATION

Patient Name - Last Name, First Name, Middle Initial | *City* | *State* | *Zip Code*

Date of Birth ___ ___ ____ | *Sex* □Male □Female

CLINICAL OUTCOME INFORMATION

How many days was patient hospitalized? _____days

How many days was patient in intensive care? _____days

Did patient require mechanical ventilation? □Yes □No □Unk

If yes, how many days was patient on a ventilator? _____days

Did patient require a a tracheostomy? □Yes □No □Unk

If yes, when was the tracheostomy done? ___ ___ ____

Did the patient develop pneumonia? □Yes □No □Unk

What was the final diagnosis? *(please check one)*

□Botulism □Tick paralysis □Paralytic shellfish poisoning
□Myasthenia gravis □Eaton-Lambert syndrome □Other_____
□Guillain-Barre syndrome □Stroke or central nervous system mass or lesion

Was treatment given for any of the above diagnosis (even if it wasn't the final diagnosis)? □Yes □No □Unk

If yes, specify type
□Botulism Antitoxin □Plasmapheresis □Neostigmine/Physostigmine □Other Immunoglobulin therapy_____

Did the patient develop an adverse event after botulism antitoxin administration? □Yes □No □Unk

If yes, specify adverse event _____

Did the patient die? □Yes □No □Unk

If yes,

When did patient die? ___ ___ ____

What was the cause of death? _____

If no,

Where was patient discharged?
□Home □Nursing home □ Physical therapy/rehabilitation facility □Other (specify)_____

Did patient have residual disability upon discharge? □Yes □No □Unk

If yes, please specify types below (check as many as apply)

□Proximal Upper Extremity Weakness □Diminshed deep tendon reflexes □Other_____
□Distal Upper Extremity Weakness □Fatigue □Other_____
□Proximal Lower Extremity Weakness □Stroke or central nervous system mass or lesion
□Distal Lower Extremity Weakness □Other_____

ADDITIONAL INFORMATION

Comments / Remarks:

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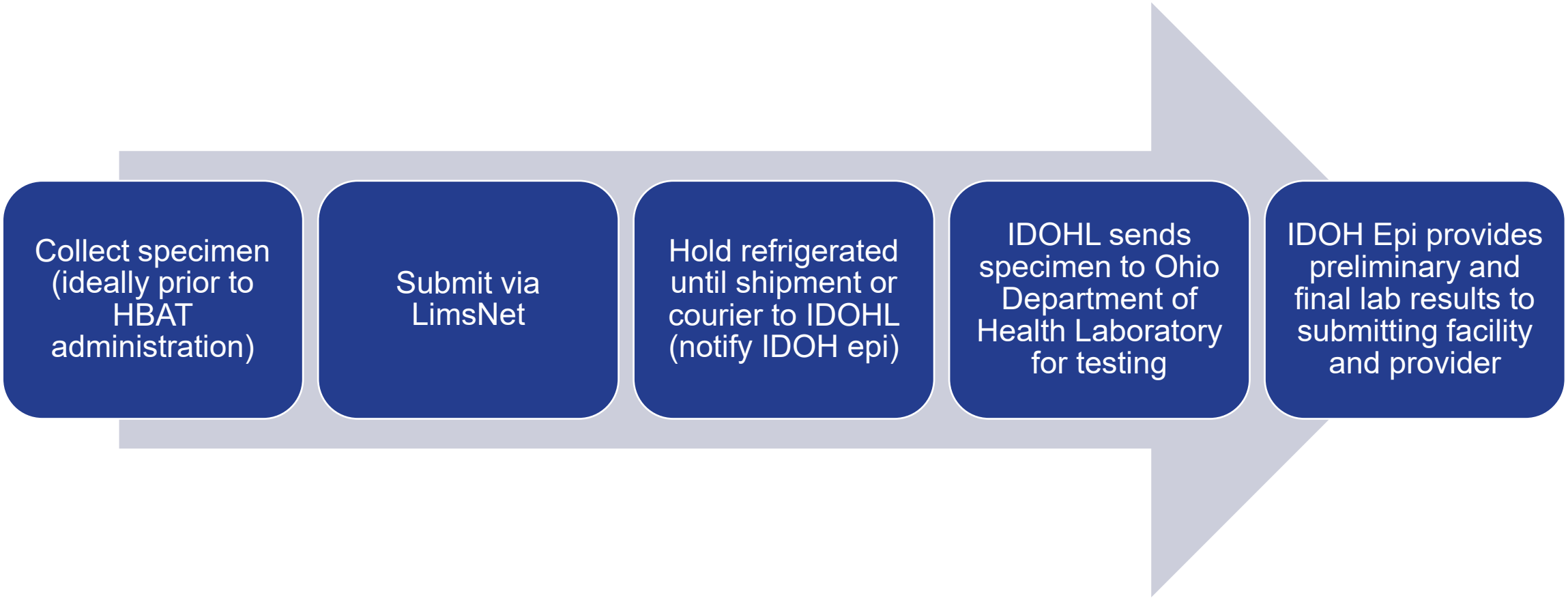
Testing for Botulism

- We **cannot** test an individual to rule-out the possibility of botulism because:
  - Delaying botulism treatment while waiting on testing results can cause severe, adverse consequences for the patient.
  - Testing is extensive
    - If the result is negative: Turnaround time is 9 days
    - If the result is positive: Turnaround time is 17 days
  - Botulism testing is subject to false positive results.

Alternatively for public health purposes we do require testing if we are releasing anti-toxin to be able to confirm the presence of toxigenic *C. botulinum*

Testing procedures



Clostridium botulinum & Botulinum Neurotoxin
Specimen Collection, Handling, and Shipping Guidelines

Disease/Agent	Specimen Selection					Shipping & Storage*	Specimen Handling
Botulism (botulinum toxin)	Specimen type	Clinical syndrome				Specimen(s) of choice for confirming botulism: 1. Serum 2. Wound/tissue 3. Stool 4. Incriminated food	
		Foodborne	Infant	Wound	Intentional release (airborne)		
	Enema fluid – 20 ml	X	X		X	2-8°C	Purge with a minimal amount of sterile non-bacteriostatic water to minimize dilution of toxin
	Food sample – 10-50g Liquid sample – 10-50ml	X	X		X	Ship at temperature as found when collected	Foods that support *C. botulinum* growth will have a pH of 3.5-7.0; most common pH is 5.5-6.5. Submit food in original container where possible or in leak-proof sealed transport devices. Botulinum toxin in commercial products is rare; contact the US FDA immediately if a commercial product is suspected of containing botulinum toxin.
	Gastric fluid – 20 ml	X, A				2-8°C	Collect up to 20 ml
	Intestinal fluid – 20 ml	A	A			2-8°C	Intestinal contents from various areas of the small and large intestines should be provided
	Nasal swab (anaerobic swab)				X	Room Temp	For aerosolized botulinum toxin exposure, obtain nasal cultures for *C. botulinum* and serum for mouse toxicity testing
	Serum – 15-20 mls	X, A		X	X	2-8°C	Serum should be obtained as soon as possible after the onset of symptoms and before antitoxin is given. Serum is required for mouse toxicity testing. In infants, serum is generally not useful, since the toxin is quickly absorbed before serum can be obtained.
	Stool ≥25 g	X	X	X	X	2-8°C	Botulism has been confirmed in infants with only "pea-size" stools. Please note: Anticholinesterase given orally, as in patients with myasthenia gravis, has been shown to interfere with toxin testing. *C. botulinum* has been isolated from stools following antitoxin treatment.
	Vomitus - 20 ml	X				2-8°C	Collect up to 20 ml
	Wound or Tissue			X		2-8°C	Anaerobic swab or transport system

***Refrigerated specimens that cannot be shipped to assure receipt within 72 hours of collection, freeze at ≤ -20°C**

A= Autopsy specimens acceptable for certain specimen types

Bureau of Public Health Laboratory, The Ohio Department of Health 8995 E. Main St., Building 22
Reynoldsburg, OH 43068 Phone: 888/ODH-LABS; Fax: 614/387-1505

Indiana

0 unsubmitted tests. Nicole Stone Site: ISDH EPIDEMIOLOGY

Log new order: Biothreat Submit Tests Packages Test Results Personalized Settings

SECTION 2: TES

Agent Suspected:

- Bacillus anthr
- Francisella tu
- Clostridium b

allei

Test Authorizatio

Date of Birth:*

providing antibiotic susceptibility result for isolates submitted for CPO's (including CRE, CRPA, and CRAB) and antifungal susceptibility results for

Ohio Department of Health Laboratory
Microbiology Specimen Submission Form

Ohio Department of Health Laboratory
8995 East Main Street
Building 22
Reynoldsburg, OH 43068

Phone: 888-634-5227
Fax: 614-387-1505
Email: odhlabs@odh.ohio.gov
CLIA Certification # 36D0655844

Note: Fields marked with an asterisk (*) must be completed

Section 1: Patient Information

*Name (Last)	*Name (First)	MI.

Address	City	County	State	Zip

* Sex	* Date of Birth (MMDDYYYY)	Chart or Patient ID #	Ethnicity
O Male O Female O Unknown			O Hispanic/Latino, O Non-Hispanic/Non-Latino

Race (check all that apply)
O White O Black OAmerican Indian or Alaskan Native O Asian O Hawaiian native/Pacific Islander O Other_____

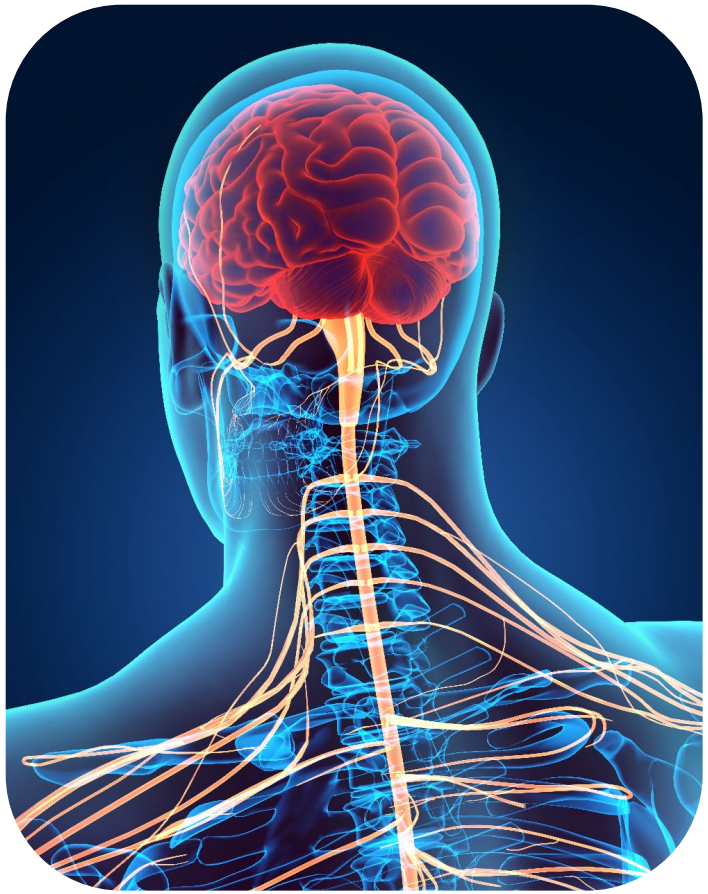
of Health

Patient Interview

- Please notify IDOH staff or CDC during the consultation if a high-risk exposure was identified during patient intake and evaluation.
- If deemed necessary, the LHD or an enteric epidemiologist will contact the patient or family to obtain exposures of concern. This is included, but not limited to foods, drug use, and environmental exposures.
- While talking with the patient, please notify them that someone may be reaching out to them for additional questions.

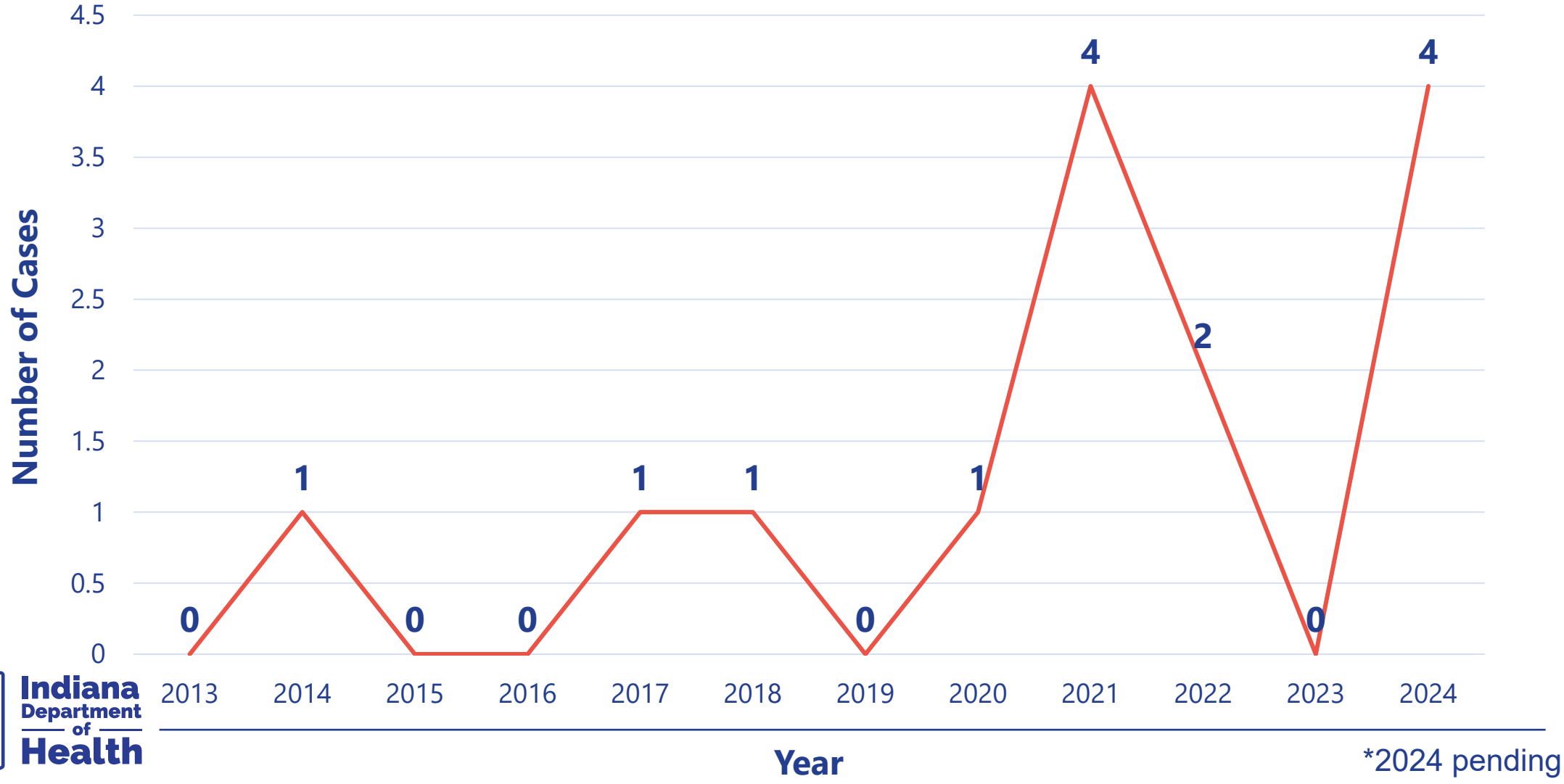
General Reminders

- Please give a clinical point contact to IDOH to help streamline ongoing process and they can also help with any questions directly between epi and clinician.
- Try to include and notify your hospital infection preventionist—they know how to get a hold of us!



Indiana Department of Health

Indiana Botulism Cases 2013-2024*



*2024 pending

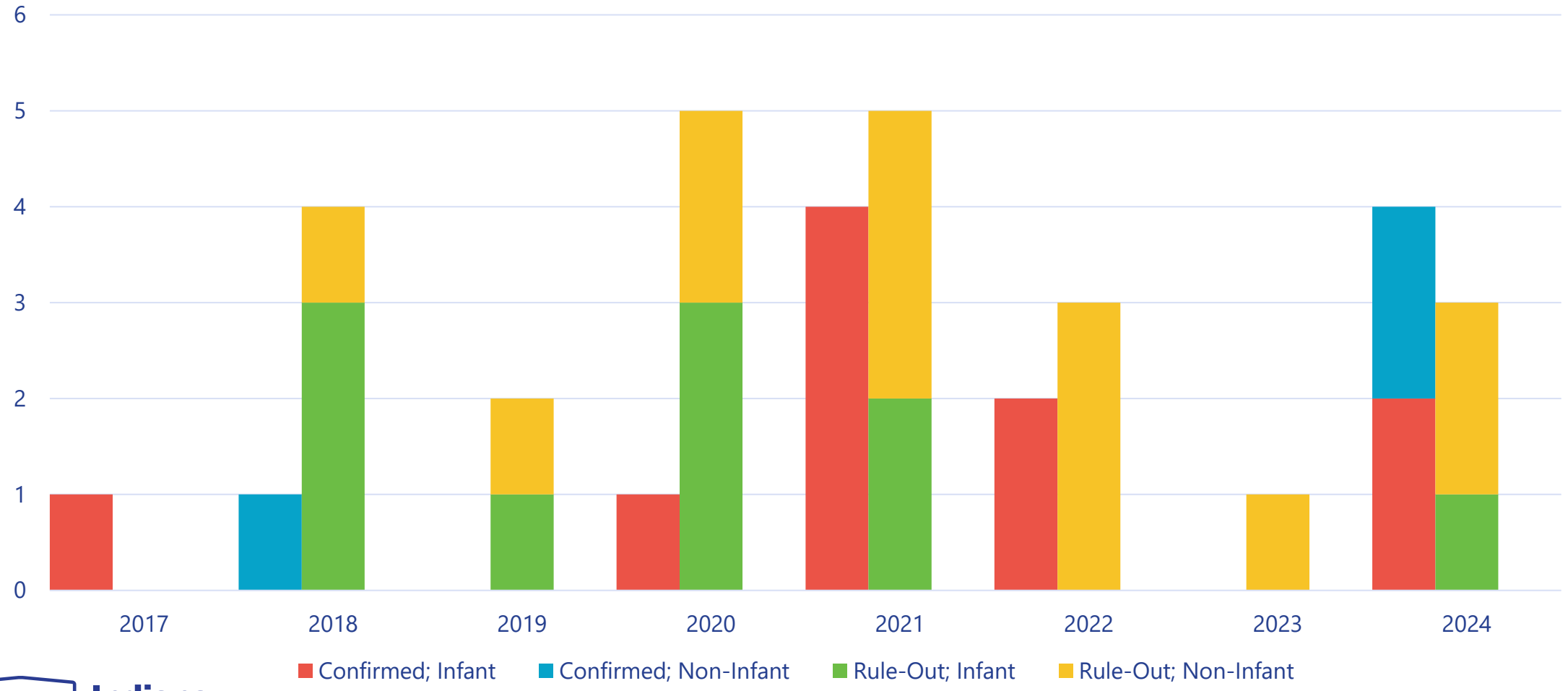
Indiana Department of Health

Botulism Rule-Outs per Year (2017-2024*)

Indiana Department of Health

*2024 pending

Botulism Rule-Outs per Year by Type (2017-2024*)



*2024 pending

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Resources & Links

- CDC Clinician Resources for Botulism
  - https://www.cdc.gov/botulism/hcp/clinician-resources/index.html
- CA DPH Infant Botulism Treatment and Prevention Program
  - https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/InfantBotulism.aspx#
- Rao AK, Sobel J, Chatham-Stephens K, Luquez C. Clinical Guidelines for Diagnosis and Treatment of Botulism, 2021. MMWR Recomm Rep 2021;70(No. RR-2):1–30. DOI: http://dx.doi.org/10.15585/mmwr.rr7002a1
  - https://www.cdc.gov/mmwr/volumes/70/rr/rr7002a1.htm

Questions?

Nicole Stone, MPH
Respiratory & Enteric Disease Epidemiology Director
nstone2@health.in.gov

Indiana Department of Health

UPDATES ON ACUTE FLACCID MYELITIS

MAKAYLA CULBERTSON

SENIOR VACCINE-PREVENTABLE DISEASE EPIDEMIOLOGIST

09/27/2024

Acute Flaccid Myelitis Updates

- As of September 18, 2024, this year CDC has received 23 reports of suspected AFM, with 14 confirmed cases in 11 states
  - This includes one suspect case from Indiana
- As we enter the fall season, seasonal increases in the circulation of respiratory pathogens, including enteroviruses, is to be expected.
- Enterovirus D-68 (EV-D68) is believed to be the main enterovirus responsible for the increases in AFM cases observed during 2014, 2016, and 2018

Clinical Presentation of AFM

- Patients with acute flaccid myelitis can present with:
  - Sudden arm or leg weakness
  - Pain in the arms or legs
  - Pain in the neck or back
  - Difficulty moving the eyes or drooping eyelids
  - Facial droop
  - Difficulty swallowing or slurred speech
- These symptoms often happen after a viral infection

Reporting AFM

- Identify a patient under investigation (PUI); patient with onset of acute flaccid limb weakness and an MRI showing spinal cord lesions in at least some gray matter
- Contact the Indiana Department of Health (Business hours: 317-233-7125 After Hours: 317-233-1325)
- Collect CSF, whole stool, respiratory, and serum specimens to send to IDOHL for CDC forwarding
- MRI imaging will also be requested

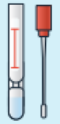
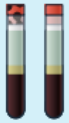
SAMPLE	AMOUNT	TUBE TYPE	PROCESSING	STORAGE	SHIPPING
CSF	0.15 mL, 0.5-2 mL preferred (collect at same time or within 24hrs of serum if feasible)	Cryovial 	Spun and CSF removed to cryovial	Freeze at ≤-20°C	Frozen on dry ice.
Respiratory Nasopharyngeal (NP)/Oropharangeal (OP) swab	0.5 mL, 1 mL preferred (minimum amount)	N/A 	Store in vial transport medium	Freeze at ≤-20°C	Frozen on dry ice.
Serum	0.5 mL, 1 mL preferred (collect at same time or within 24hrs of CSF if feasible)	Tiger/red top for collection; separate tube for shipping 	Spun and serum aliquot removed to separate tube	Freeze at ≤-20°C	Frozen on dry ice.
Stool	1 gram, 10 – 20 grams preferred (2 samples collected 24hrs apart)	Sterile container 	N/A	Freeze at ≤-20°C	Frozen on dry ice. Rectal swabs should not be sent in place of stool.
Please, always include whole stool specimens to help identify pathogens and rule out poliovirus.					

Photo: CDC AFM Job Aid for Clinicians

Indiana Department of Health

AFM Resources

- CDC AFM Cases
- CDC Tools and Resources for Providers
- CDC AFM Job Aid for Clinicians
- CDC AFM Symptom Infographic
- CDC Clinical Guidance for the Acute Medical Treatment of AFM
- AFM Physician Consult and Support Portal

CDC Healthcare provider tools and resources AFM

HEAD SHOULDERS KNEES & TOES

Unexplained proximal muscle weakness in children can occur in some neurologic conditions and can be easily missed during exams that only focus on distal strength.

When examining children with sudden limb, neck, or trunk weakness, remember head, shoulders, knees, and toes.

Raise KNEES

Muscle Group:
* Hips

Ask:
* Are they limping or dragging a leg?
* Can they put on pants?
* Can they do a squat and recover?

Reach down & touch TOES

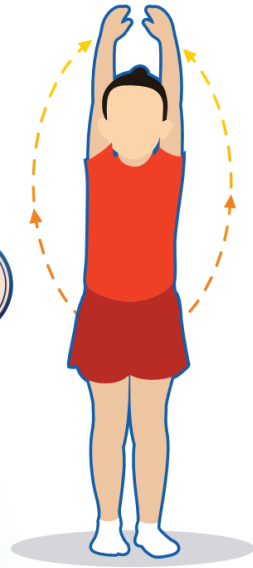
Muscle Group:
* Trunk

Ask:
* Are they waddling or falling while walking?
* Can they sit up and stand without support?
* Can they get a toy off the ground while standing?

Lift both arms above the HEAD

Muscle Group:
* Shoulder Girdle

Ask:
* Are they using one limb less?
* Can they put on a T-shirt?
* Can they give a high-five with each hand?



Shrug the SHOULDERS

Muscle Group:
* Neck/Shoulder Girdle

Ask:
* Is one shoulder higher than the other?
* Can they throw a ball overhead?
* Can they hold up their head?

Indiana Department of Health

Questions?

Makayla Culbertson
Senior VPD Epi
mculbertson@health.in.gov

Respiratory Disease Update (Flu, COVID, RSV)

Indiana Department of Health

CDC respiratory season prediction

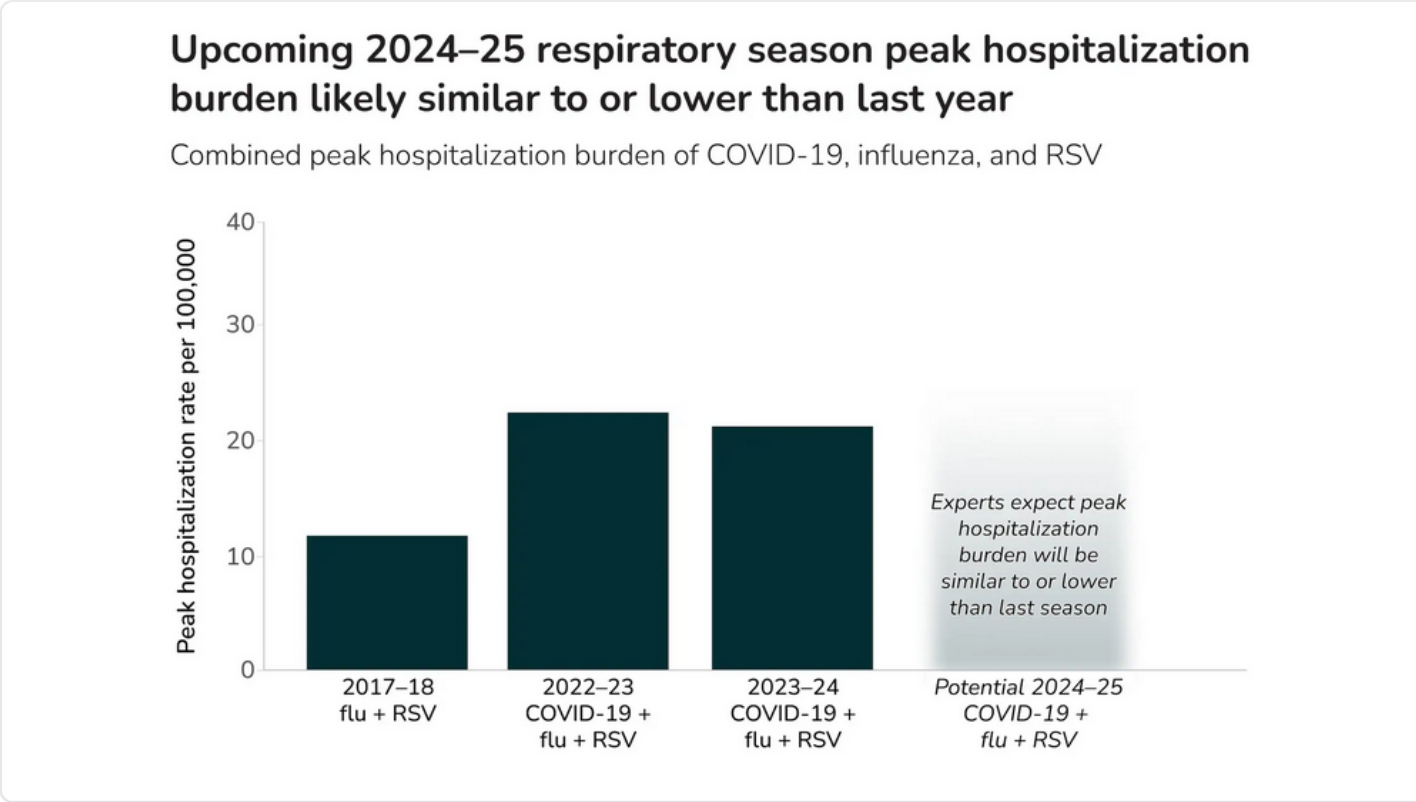


Figure 1: Experts believe there's a roughly 80% chance that the hospitalization burden for COVID-19, influenza, and RSV combined at their peak during the 2024-25 season will be similar to or lower than last season. The 2017-18 bar provides context for a severe season pre-pandemic; 2017-18 RSV data does not include pediatric hospitalizations. Data are from RESP-NET.

Indiana Department of Health

WHAT YOU NEED TO KNOW ABOUT FALL VACCINES 2024

Immunizations have been shown to lower risk of severe disease. Speak to your health care provider about the best timing for you.

Vaccine	Who	What	When
FLU	People 6 months of age and older	Updated 2024–2025 flu vaccine	During flu season. September and October remain the best times for most people to get vaccinated
COVID	Everyone aged 6 months and older should get 1 updated Moderna, Novavax, or Pfizer COVID-19 vaccine to be up to date.	Updated 2024–2025 COVID-19 vaccine	During fall and winter respiratory disease season
RSV	Adults over 75 and older and adults 60-74 at increased risk of severe RSV	NOT AN ANNUAL VACCINE	Eligible adults can get any time, best time is in late summer and early fall

WHAT YOU NEED TO KNOW ABOUT FALL VACCINES 2024

Immunizations have been shown to lower risk of severe disease. Speak to your health care provider about the best timing for you.

Vaccine	Who	What	When
RSV	Pregnant women at 32-36 weeks	Pfizer Abrysvo is the only RSV vaccine approved for pregnant women	September through January
RSV	Infants 19 months and younger	Monoclonal antibody shot	October through the end of March

Indiana Department of Health

Indiana Department of Health

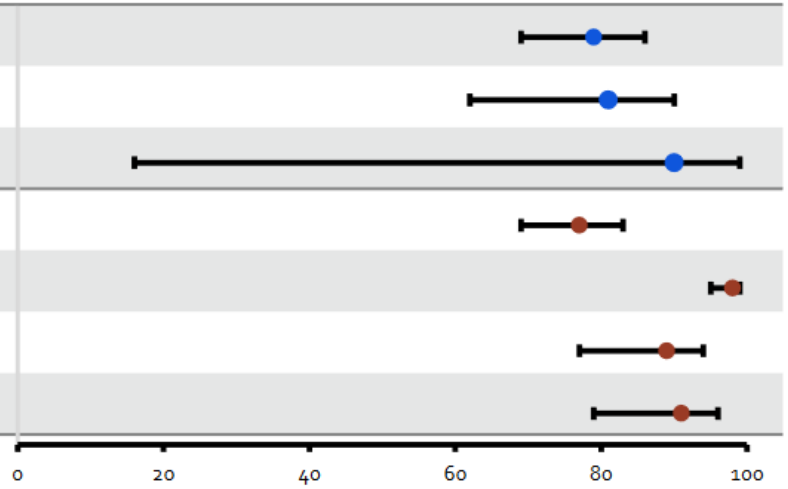
https://www.in.gov/health/immunization/files/24_FALL-immunizations-004.pdf

Indiana Department of Health

https://www.cdc.gov/mmwr/volumes/73/wr/mm7309a4.htm

Observational data indicate nirsevimab is working as expected (vs. RCT results) during the first RSV season after approval among infants in their first RSV season

Outcome/Analysis	Vaccine efficacy/effectiveness (%)
Clinical trial, RSV-associated LRTI	79 (69-86)
Clinical trial, RSV-associated LTRI with hospitalization	81 (62-90)
Clinical trial, RSV-associated LRTI with ICU admission	90 (16-99)
VISION, RSV-associated emergency department visits	77 (69-83)
VISION, RSV-associated hospitalization	98 (95-99)
NVSN, medically attended RSV-associated ARI episode	89 (77-94)
NVSN, RSV-associated hospitalization	91 (79-96)



Results may not be comparable across studies due to differences in outcome definitions, timing, and other factors.

https://www.cdc.gov/mmwr/volumes/72/wr/mm7234a4.htm

RCT = randomized clinical trial | ARI = acute respiratory illness

CDC RSV survey

- Survey done in March-April this year

- Coverage among those surveyed:
  - Maternal RSV vaccination among eligible pregnant women was 32.6%
  - Nirsevimab among infants was 44.6%
  - 55.8% of infants were protected by either or both products.
  - Receipt of a provider recommendation was strongly associated with both maternal and infant immunization.

RSV maternal vaccine and infant monoclonal antibody recommendations from CDC

Infants and young children

- To prevent severe RSV disease in infants, CDC recommends either maternal RSV vaccination or infant immunization with RSV monoclonal antibodies. **Most infants will not need both.**

Vaccination for pregnant women

• 1 dose of maternal RSV vaccine during weeks 32 through 36 of pregnancy, administered **September through January.** Pfizer Abrysvo is the only RSV vaccine recommended during pregnancy.

Immunization for infants and young children (monoclonal antibodies)

• 1 dose of nirsevimab is recommended for infants younger than 8 months of age who were born shortly before or are entering their first RSV season (**typically October through March**)

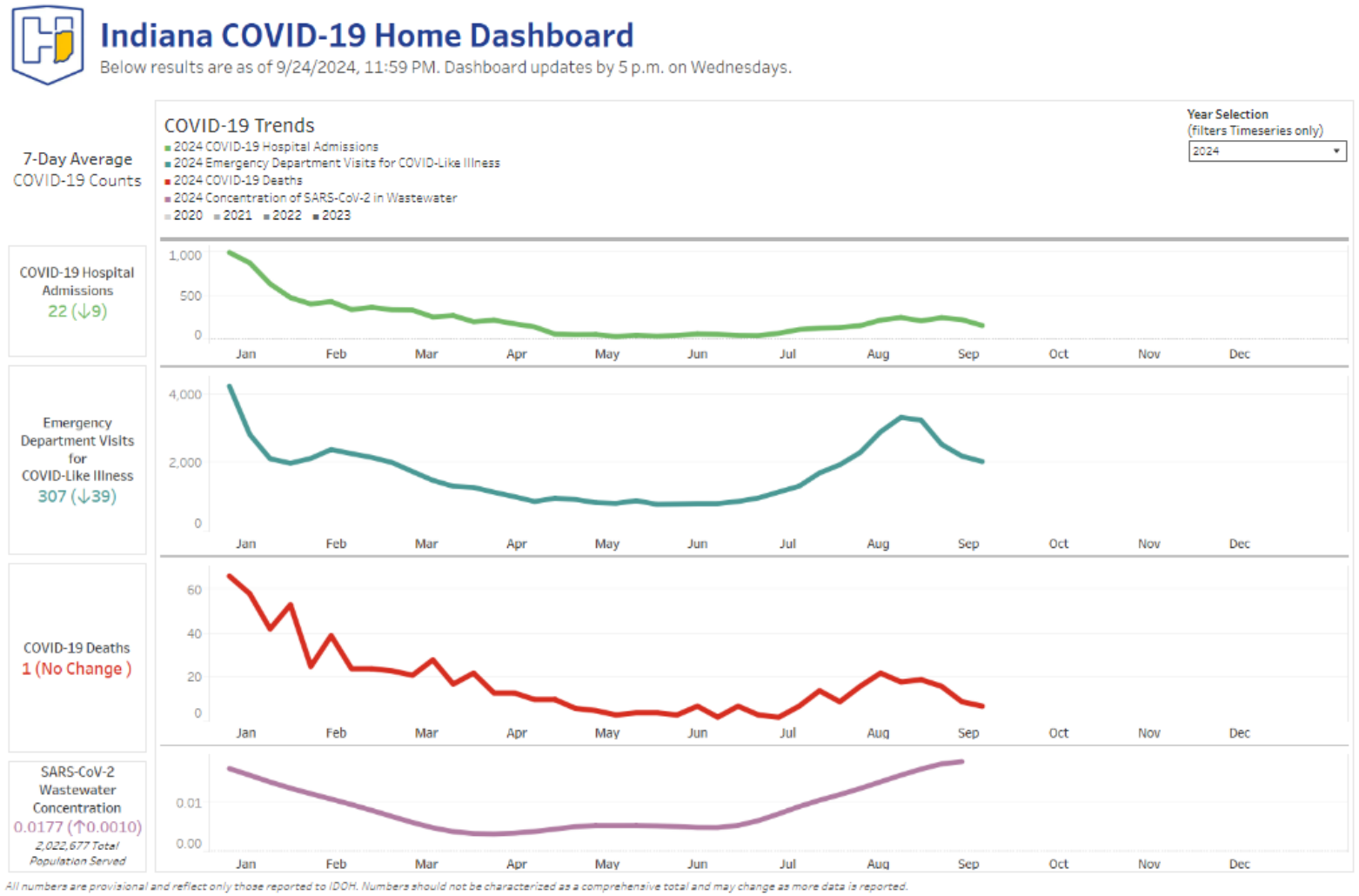
•1 dose of nirsevimab for infants and children aged 8–19 months who are at increased risk for severe RSV disease and entering their second RSV season.

• *Note:* A different monoclonal antibody, palivizumab, is limited to children aged 24 months and younger with certain conditions that place them at high risk for severe RSV disease. It must be given once a month during RSV season.

Older Adult RSV Recommendation

- ACIP recommends adults 75 years and older receive a single dose of RSV vaccine
  - Removes shared clinical decision-making language
  - Includes the new Moderna RSV vaccine
- ACIP recommends adults 60-74 who are at increased risk of severe RSV disease receive a single dose of RSV vaccine
  - Shared clinical decision-making recommendation versus a risk-based recommendation
  - Adults that have already receive da dose of RSV do not need to receive another dose in the 2024-25 season

COVID-19 in Indiana



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COVID-19 Update for the United States

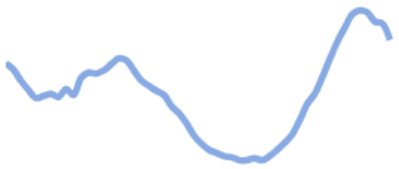
Early Indicators

Test Positivity

% Test Positivity

14.9%

Week ending September 7, 2024
Previous week 16.5%



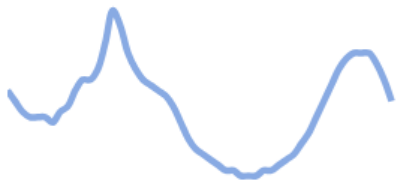
Sep 16, 2023 Sep 7, 2024

Emergency Department Visits

% Diagnosed as COVID-19

1.7%

Week ending September 14, 2024
Previous week 2.1%



Sep 23, 2023 Sep 14, 2024

These early indicators represent a portion of national COVID-19 tests and emergency department visits. Wastewater information also provides early indicators of spread.

Severity Indicators

Hospitalizations

Rate per 100,000 population

4.1

Week ending August 31, 2024
Previous week 4.4

Sep 9, 2023 Aug 31, 2024

Deaths

% of All Deaths in U.S. Due to COVID-19

2.3%

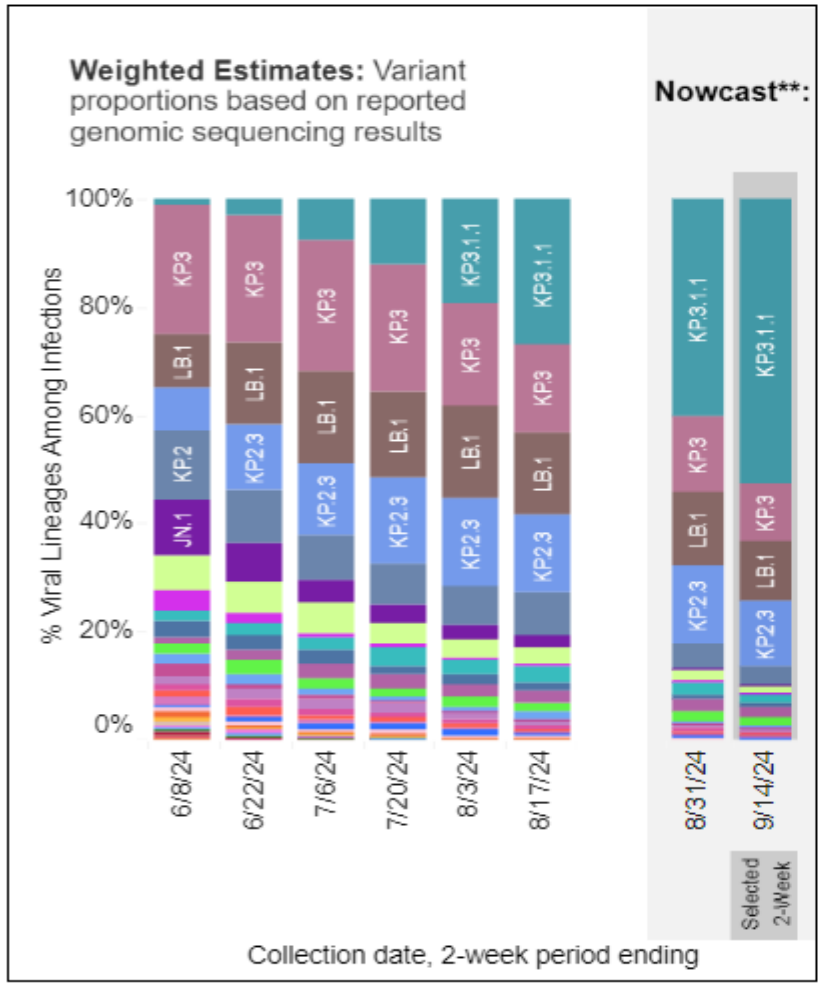
Week ending September 14, 2024
Previous week 2.3%

Sep 23, 2023 Sep 14, 2024

CDC | Test Positivity data through: September 7, 2024; Emergency Department Visit data through: September 14, 2024; Hospitalization data through: August 31, 2024; Death data through: September 14, 2024.
Posted: September 23, 2024 2:52 PM ET

Weighted and Nowcast Estimates in United States for 2-Week Periods in 5..

Hover over (or tap in mobile) any lineage of interest to see the amount of uncertainty in that lineage's estimate.



Nowcast Estimates in United States for 9/1/2024 – 9/14/2024

USA

WHO label	Lineage #	US Class	%Total	95%PI
Omicron	KP.3.1.1	52.7%	48.6-56.8%	
	KP.2.3	12.2%	10.8-13.8%	
	LB.1	10.9%	9.4-12.6%	
	KP.3	10.6%	9.3-12.1%	
	KP.2	3.1%	2.2-4.2%	
	LP.1	2.1%	1.4-3.0%	
	KP.1.1.3	1.9%	1.4-2.8%	
	JN.1.18	1.7%	0.6-4.0%	
	KP.1.1	1.5%	1.2-1.9%	
	KS.1	0.7%	0.4-1.0%	
	KP.2.15	0.7%	0.4-1.0%	
	LF.3.1	0.6%	0.4-0.9%	
	JN.1.16.1	0.6%	0.4-0.8%	
	KP.4.1	0.2%	0.1-0.4%	
	JN.1.11.1	0.2%	0.1-0.3%	
	JN.1	0.2%	0.1-0.3%	
	KW.1.1	0.0%	0.0-0.1%	
	XDV.1	0.0%	0.0-0.1%	
	JN.1.16	0.0%	0.0-0.0%	
	JN.1.7	0.0%	0.0-0.0%	
	KP.1.2	0.0%	0.0-0.0%	
	KQ.1	0.0%	0.0-0.0%	
	JN.1.8.1	0.0%	0.0-0.0%	
	JN.1.32	0.0%	0.0-0.0%	

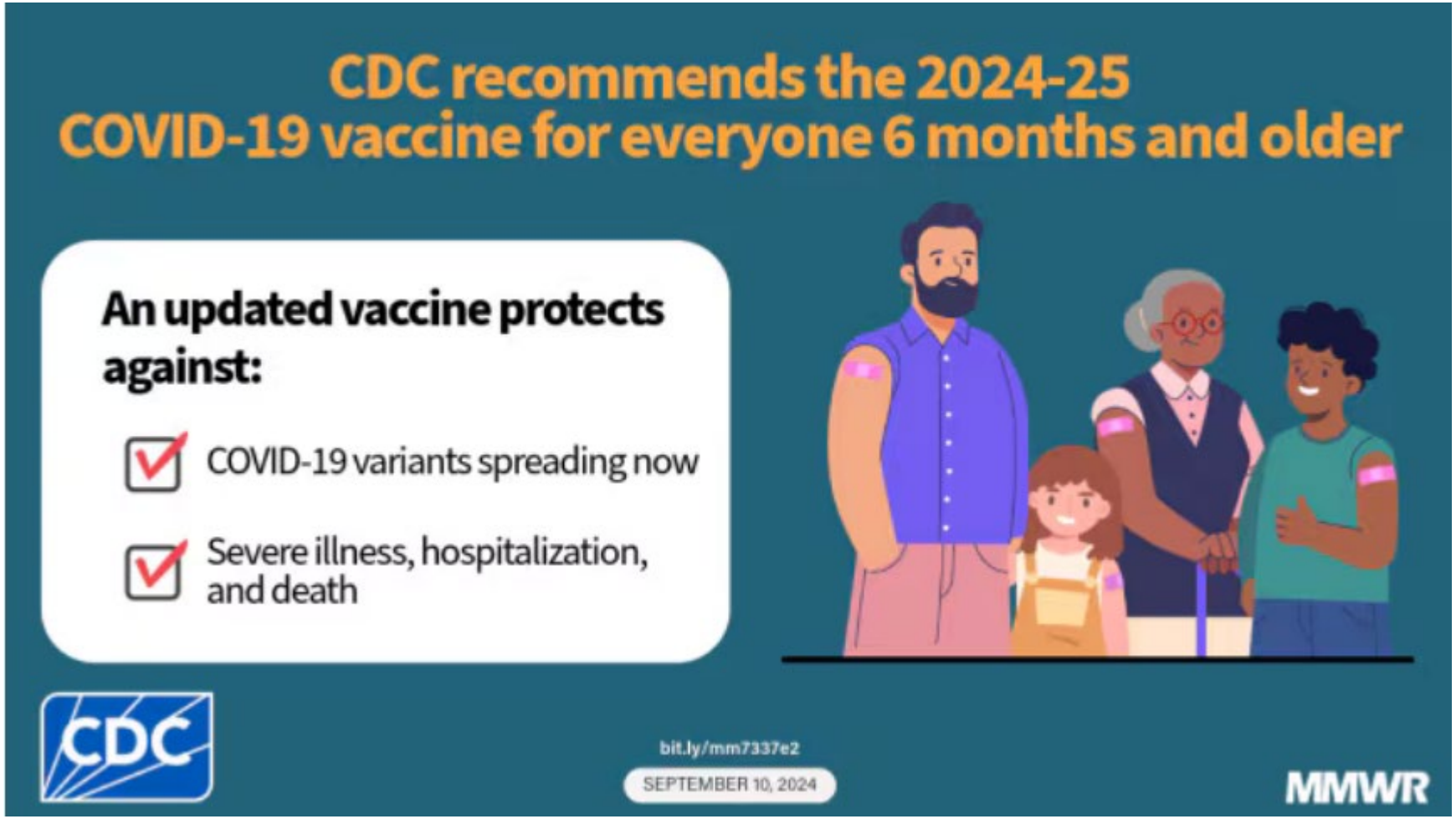
Indiana Department of Health

https://covid.cdc.gov/covid-data-tracker/#variant-summary

COVID-19 Recommendation

- ACIP recommends 2024-2025 COVID-19 formulation for individuals 6 months of age and older
- COVID-19 Hospitalizations
  - 50% of hospitalized children and adolescents have no underlying conditions
  - 2/3 of all COVID-19 associated hospitalizations are in adults 65+
  - 19% of adults 65+ who were hospitalized were residents of a long-term care facility
- COVID-19 Vaccine Effectiveness
  - 53% effective against symptomatic infections in adults
  - 66-71% effective against ED/UC visits among children 9 mo -17 yrs

COVID-19 vaccine recs MMWR 9/19/24



Indiana Department of Health

FDA Approves updated COVID-19 vaccines

- **Based on KP.2**
- **Monovalent**

FDA NEWS RELEASE

FDA Approves and Authorizes Updated mRNA COVID-19 Vaccines to Better Protect Against Currently Circulating Variants

Unvaccinated individuals 6 months through 4 years of age are eligible to receive three doses of the updated, authorized Pfizer-BioNTech COVID-19 Vaccine or two doses of the updated, authorized Moderna COVID-19 Vaccine.

Individuals 6 months through 4 years of age who have previously been vaccinated against COVID-19 are eligible to receive one or two doses of the updated, authorized Moderna or Pfizer-BioNTech COVID-19 vaccines (timing and number of doses to administer depends on the previous COVID-19 vaccine received).

Individuals 5 years through 11 years of age regardless of previous vaccination are eligible to receive a single dose of the updated, authorized Moderna or Pfizer-BioNTech COVID-19 vaccines; if previously vaccinated, the dose is administered at least 2 months after the last dose of any COVID-19 vaccine.

Individuals 12 years of age and older are eligible to receive a single dose of the updated, approved Comirnaty or the updated, approved Spikevax; if previously vaccinated, the dose is administered at least 2 months since the last dose of any COVID-19 vaccine.

Additional doses are authorized for certain immunocompromised individuals ages 6 months through 11 years of age as described in the Moderna COVID-19 Vaccine and Pfizer-BioNTech COVID-19 Vaccine fact sheets.

https://www.fda.gov/news-events/press-announcements/fda-approves-and-authorizes-updated-mrna-covid-19-vaccines-better-protect-against-currently#:~:text=The%20updated%20mRNA%20COVID%2D19,through%2011%20years%20of%20age.

FDA Approves Novavax COVID-19 vaccine

FDA NEWS RELEASE

FDA Authorizes Updated Novavax COVID-19 Vaccine to Better Protect Against Currently Circulating Variants

JN.1

Emergency Use Authorization

What You Need to Know

- Individuals 12 years of age and older who have never been vaccinated with any COVID-19 vaccine are eligible to receive two doses of this updated vaccine, 3 weeks apart.
- Individuals who have been vaccinated only with one dose of any Novavax COVID-19 vaccine are eligible to receive one dose of the updated Novavax COVID-19 vaccine at least 3 weeks after the previous dose.
- Those who have been vaccinated with a prior formula of a COVID-19 vaccine from another manufacturer or with two or more doses of a prior formula of the Novavax COVID-19 vaccine are eligible to receive a single dose of the updated Novavax COVID-19 vaccine at least 2 months after the last dose of a COVID-19 vaccine.

Updated CDC COVID vaccine recommendations

Ages 12 years and older

COVID-19 vaccination history§	2024–2025 vaccine	Number of 2024–2025 doses indicated	Dosage (mL/ug)	Interval between doses
Unvaccinated	Moderna	1	0.5 mL/50 ug	—
	OR			
	Novavax	2	0.5 mL/5 ug rS protein and 50 ug Matrix-M adjuvant	**Dose 1**: Day 0 **Dose 2**: 3–8 weeks after Dose 1*
	OR			
	Pfizer-BioNTech	1	0.3 mL/30 ug	—
1 or more doses any mRNA, NOT including 1 dose any 2024–2025 COVID-19 vaccine	Moderna	1	0.5 mL/50 ug	At least 8 weeks after last dose
	OR			
	Novavax	1	0.5 mL/5 ug rS protein and 50 ug Matrix-M adjuvant	At least 8 weeks after last dose
	OR			
	Pfizer-BioNTech	1	0.3 mL/30 ug	At least 8 weeks after last dose
1 dose any Novavax	Novavax	1	0.5 mL/5 ug rS protein and 50 ug Matrix-M adjuvant	**Dose 2**: 3–8 weeks after Dose 1*‡
2 or more doses any Novavax, NOT including 1 dose any 2024–2025 COVID-19 vaccine	Moderna	1	0.5 mL/50 ug	At least 8 weeks after last dose
	OR			
	Novavax	1	0.5 mL/5 ug rS protein and 50 ug Matrix-M adjuvant	At least 8 weeks after last dose
	OR			
	Pfizer-BioNTech	1	0.3 mL/30 ug	At least 8 weeks after last dose
2 or more doses any Novavax, INCLUDING 1 dose any 2024–2025 COVID-19 vaccine	No further doses indicated			

So what about those less than 6 mo old?

CDC MMWR 9/26:

- COVID-19–associated hospitalization rates among infants aged <6 months remain higher than those among any other age group except adults aged ≥75 years
  - Rates were comparable to hospitalization rates in adults aged 65–74 years.
  - Among approximately 1,000 hospitalized infants with COVID-19, 22% were admitted to an intensive care unit, and nine died while hospitalized.
  - The percentage of hospitalized infants whose mothers had been vaccinated during pregnancy was 18% during October 2022–September 2023 and decreased to <5% during October 2023–April 2024.

- CDC recommends COVID vaccination for pregnant women to protect infants in this age group.

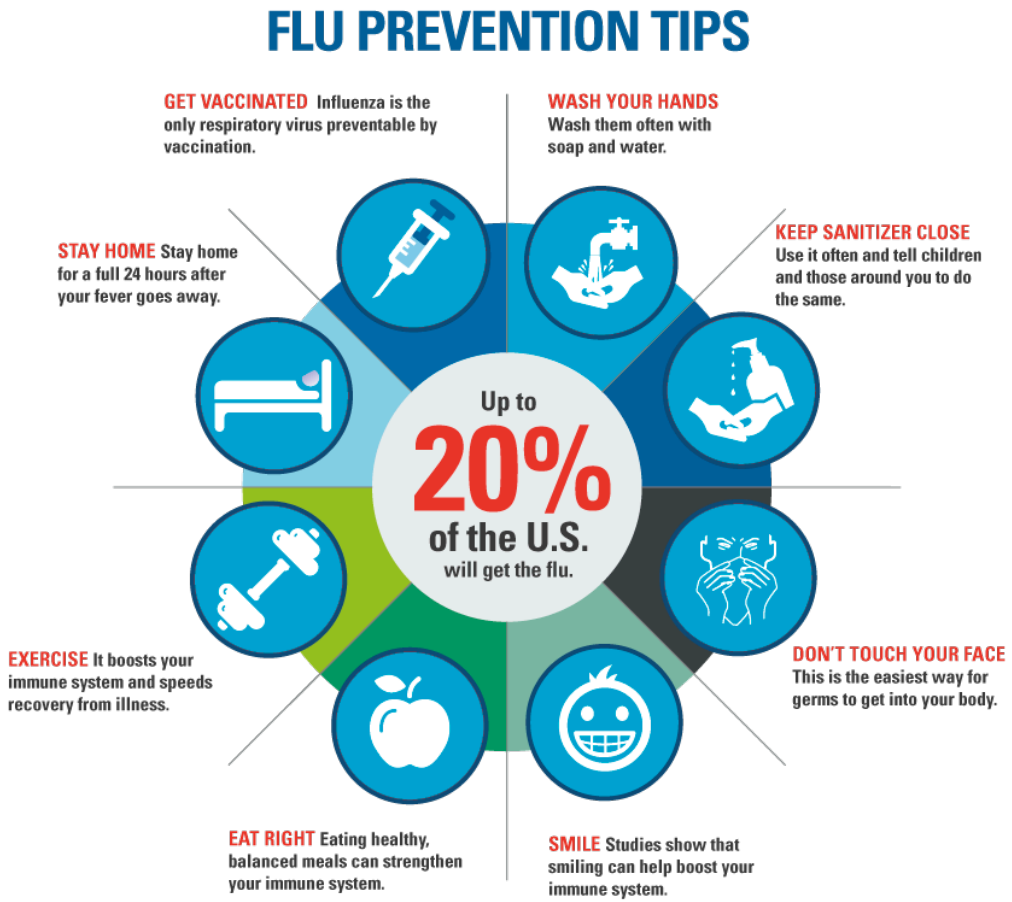
Free COVID-19 Tests

Need help placing an order for your at-home tests?
Call 1-800-232-0233 (TTY 1-888-720-7489).

https://covidtests.gov/

Indiana Department of Health

Seasonal Influenza Vaccine



- ACIP affirmed the recommendation for a routine annual influenza vaccination for individuals 6 months and older who do not have contraindications
- No shortages or delays in shipment expected

FluMist now available for self or caregiver administration

FDA NEWS RELEASE

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

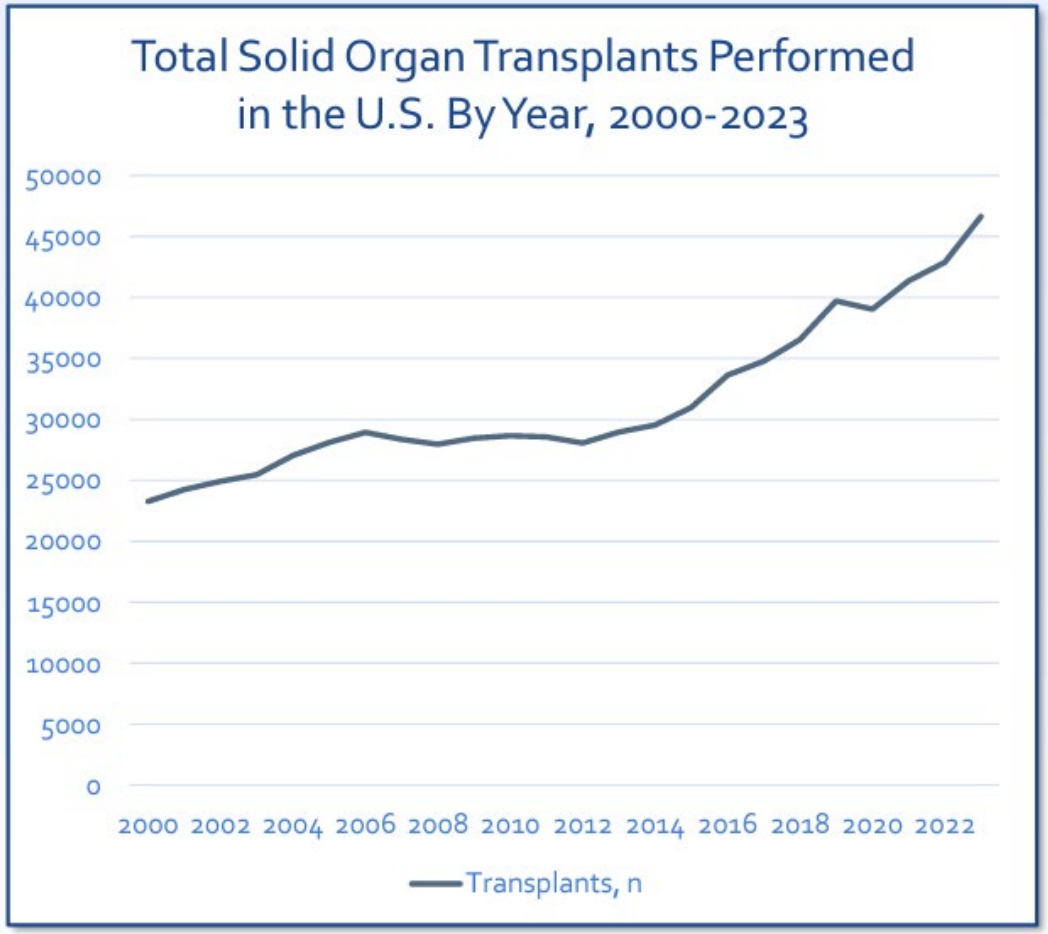
First Influenza Vaccine That Does Not Need to be Administered by a Health Care Provider

Share | Post | Linkedin | Email | Print

High Dose/Adjuvanted Flu Vaccines for Solid Organ Transplant Recipients Recommendation

- New recommendation for high dose or adjuvanted flu vaccines for solid organ transplant in adults 18+
  - Previously only approved for 65+

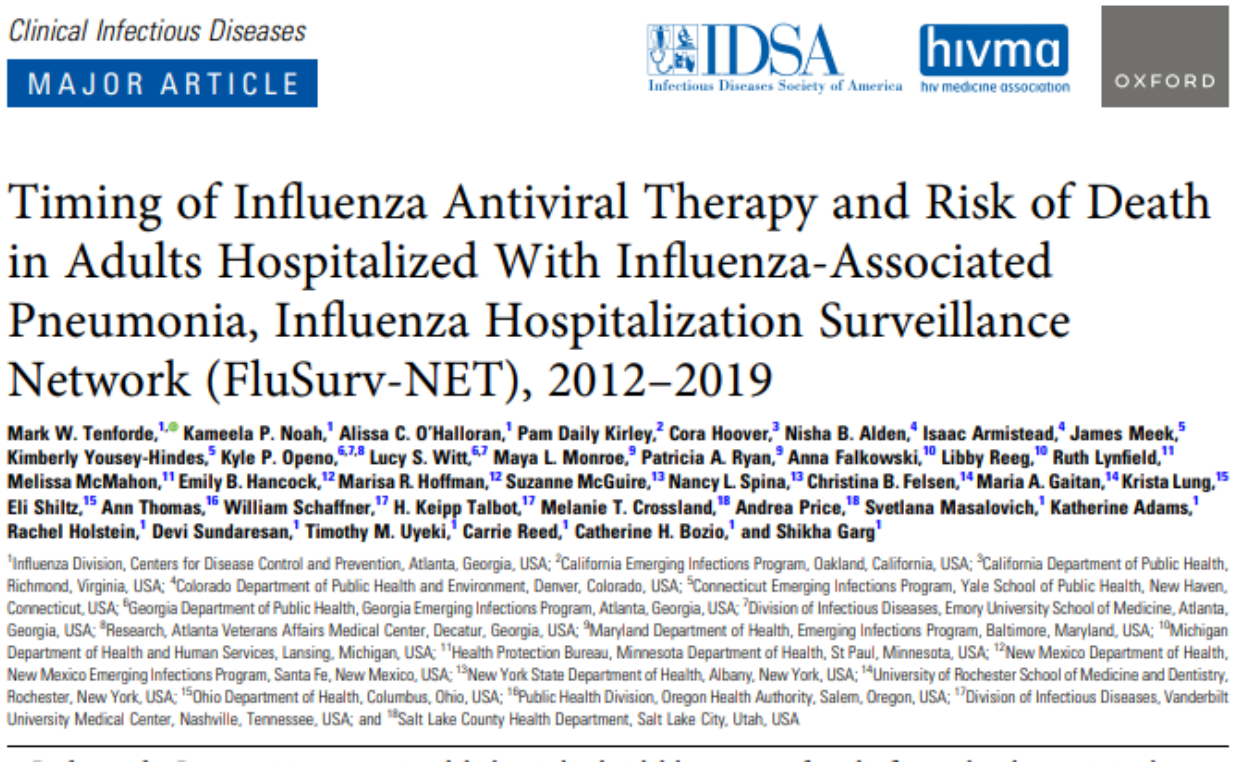
Link to review of studies



Indiana Department of Health

CDC Study – Early Flu Antiviral Treatment Decreases Risk of Death

- FluSurv-NET 2012 - 2019
- Delayed initiation of antiviral treatment in patients hospitalized with influenza-associated pneumonia was associated with higher risk of death
- 30-day mortality
  - 7.5% - Day 0
  - 8.5% - Day 1
  - 10.2% - Days 2-5
- CDC Link



Clinical Infectious Diseases

MAJOR ARTICLE

Timing of Influenza Antiviral Therapy and Risk of Death in Adults Hospitalized With Influenza-Associated Pneumonia, Influenza Hospitalization Surveillance Network (FluSurv-NET), 2012–2019

Mark W. Tenforde,[1,a] Kameela P. Noah,[1] Alissa C. O'Halloran,[1] Pam Daily Kirley,[2] Cora Hoover,[3] Nisha B. Alden,[4] Isaac Armistead,[4] James Meek,[5] Kimberly Yousey-Hindes,[5] Kyle P. Openo,[6,7,8] Lucy S. Witt,[6,7] Maya L. Monroe,[9] Patricia A. Ryan,[9] Anna Falkowski,[10] Libby Reeg,[10] Ruth Lynfield,[11] Melissa McMahon,[11] Emily B. Hancock,[12] Marisa R. Hoffman,[12] Suzanne McGuire,[13] Nancy L. Spina,[13] Christina B. Felsen,[14] Maria A. Gaitan,[14] Krista Lung,[15] Eli Shiltz,[15] Ann Thomas,[16] William Schaffner,[17] H. Keipp Talbot,[17] Melanie T. Crossland,[18] Andrea Price,[18] Svetlana Masalovich,[1] Katherine Adams,[1] Rachel Holstein,[1] Devi Sundaresan,[1] Timothy M. Uyeki,[1] Carrie Reed,[1] Catherine H. Bozio,[1] and Shikha Garg[1]

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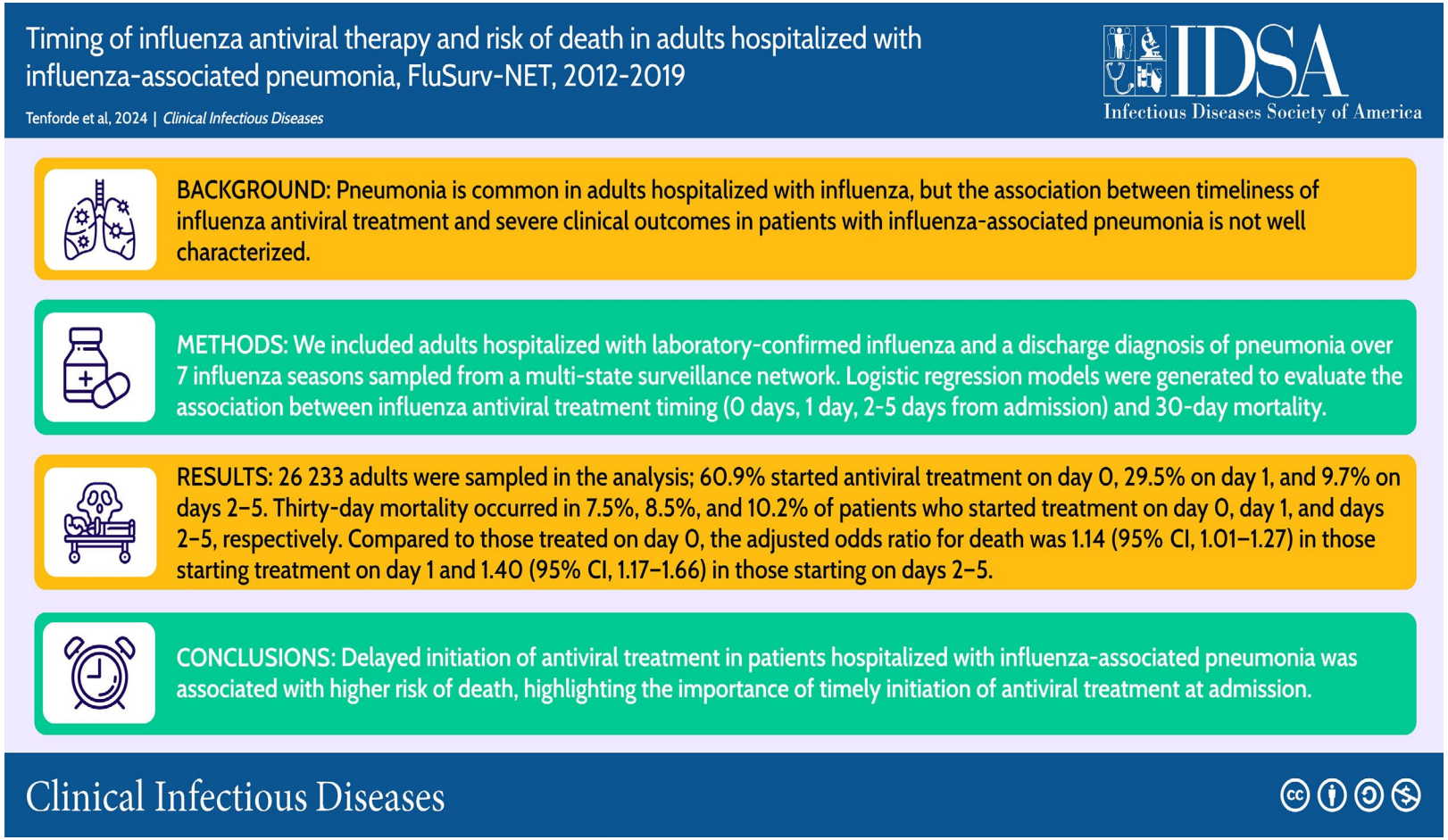
Graphical abstract This graphical abstract is also available at Tidbit: ...



Clin Infect Dis, ciae427, https://doi.org/10.1093/cid/ciae427

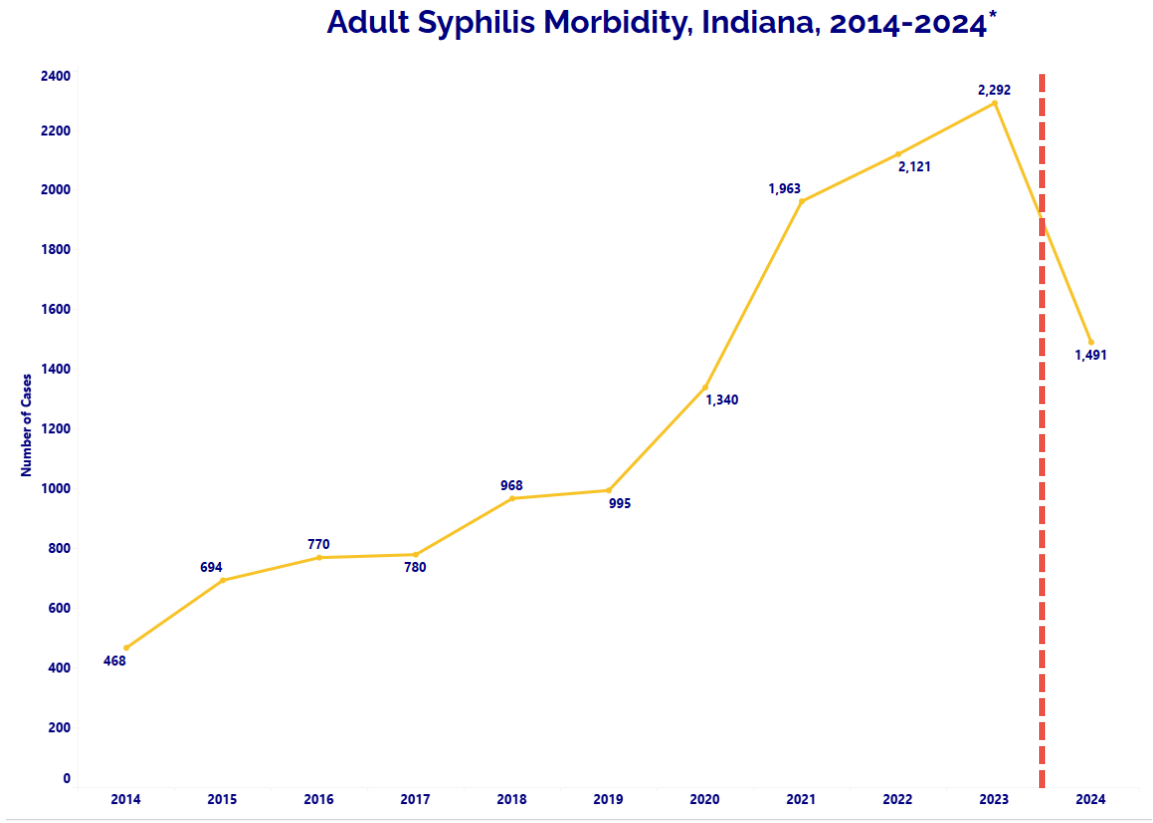
OXFORD UNIVERSITY PRESS

Infectious Diseases of Public Health Importance

Indiana Department of Health

Adult Syphilis Morbidity

- Rates of adult syphilis have been on the rise since 2014 in Indiana, reaching 33.9 (per 100,000) in 2023. Year to date there have been 1,491 cases of adult syphilis reported in 2024*.
- Black/African American Hoosiers have the highest rates of syphilis when compared to other races
- While rates are still highest among men, women (including those of childbearing age) have had the highest percent increase over time in recent years
  - From 2019-2023 there was a 283% increase in syphilis cases among females of childbearing age (15-44 years old)

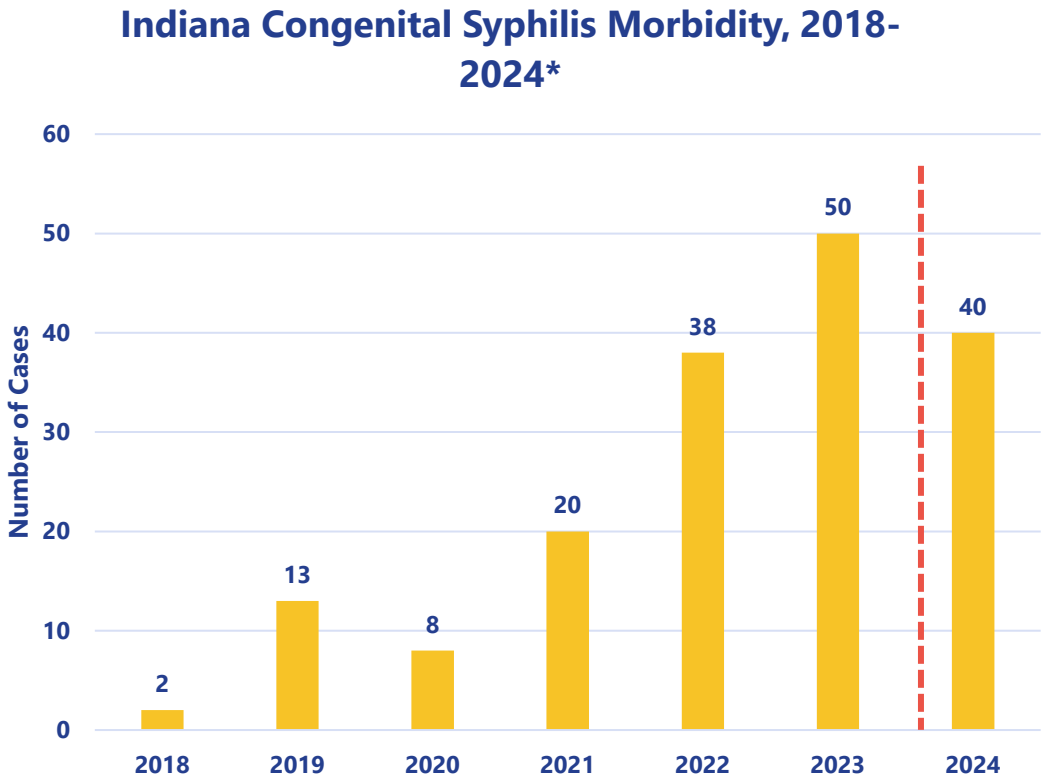


*2024 STI data are preliminary.

Indiana Department of Health

Congenital Syphilis Morbidity

- From 2018-2023 there has been a 2,400% increase in congenital syphilis (CS) cases, with 50 cases reported in 2023 and 40 cases reported year to date in 2024*.
  - 31 counties have reported at least one CS case since 2018.
- Of the 40 CS cases reported this year in Indiana, **2 were stillbirths**



*2024 STI data are preliminary.

Indiana Department of Health

Importance of ED screening

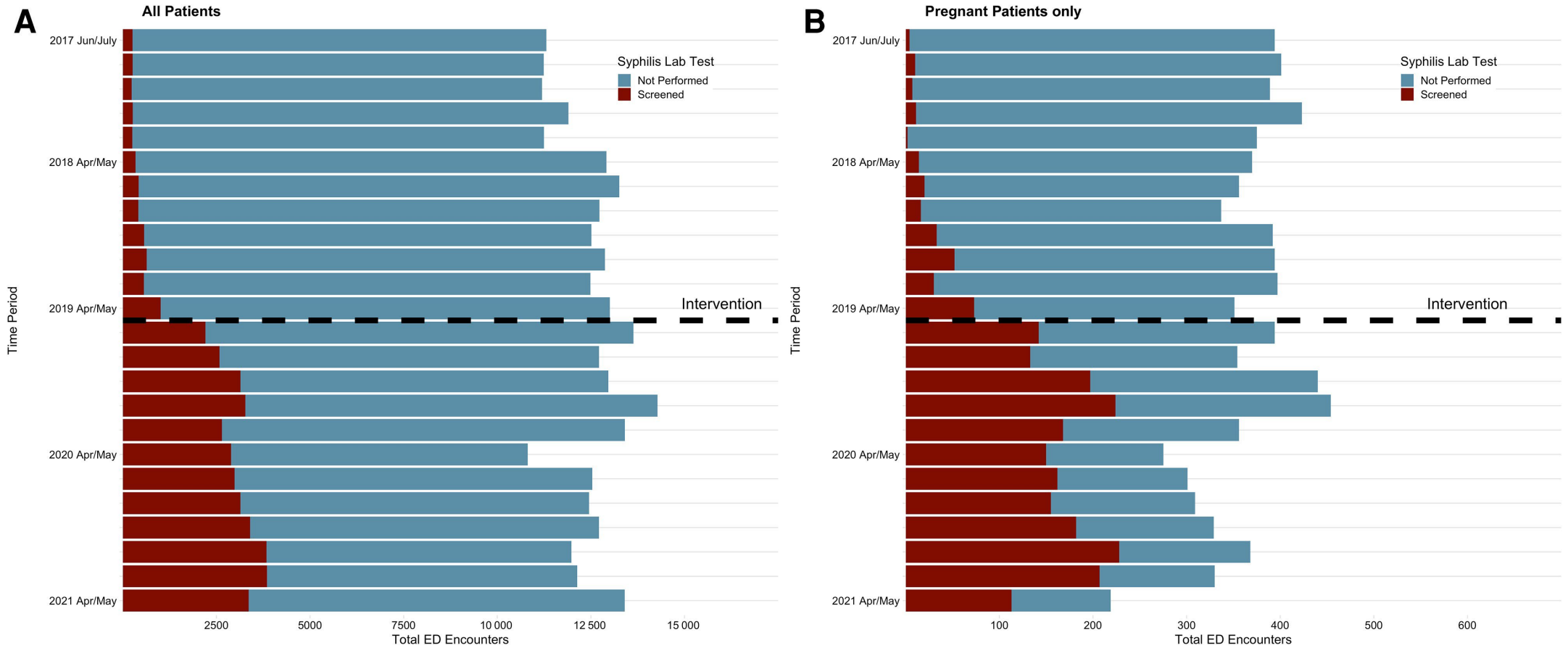
- Study of about 300,000 people in Chicago
- Prior to study, about 3.6% of patients screened for syphilis. After implementation, about 24.4%.
- Pregnant women:
  - Pre-intervention testing was 5.9% (272 of 4,579), post-intervention was 49.9% (2,061 of 4,129)
  - Cases went from 2 to 15

Media Advisory Tuesday, September 10, 2024

Emergency department screening more than doubles detection of syphilis cases

NIH-supported study shows potential of strategy to reach people with and without symptoms.

Importance of ED screening



Indiana Department of Health

Recommendations

- Perform syphilis testing on all patients upon finding a positive pregnancy test
- Test all pregnant patients three times during pregnancy (at initial prenatal visit, again at 28-32 weeks of gestation, and then at delivery)
- Meet people where they are with syphilis testing and treatment outside of settings in which pregnant patients are typically encountered.
  - This could include emergency departments, urgent cares, primary care visits, jail/prison intake, local health departments, community programs, and other addiction services.
- Perform screening and treatment of all sexually active women and their partners for syphilis in counties with high syphilis rates
- Perform screening and appropriate treatment for those with other risk factors for syphilis (have unprotected sex and do not use condoms or do not use them correctly, have multiple sex partners, have a sex partner who has syphilis and have sex with a partner who has multiple sex partners)
- Treat all pregnant women who are infected with syphilis immediately upon diagnosis, according to their clinical stage of infection. Treatment must be with penicillin G benzathine (Bicillin LA).

Congenital Syphilis is Preventable

Toolkit can be found here: https://www.in.gov/health/audiences/clinicians/clinical-guidelines-and-references/congenital-syphilis-clinician-toolkit/

Includes:

- Dashboards (Adult and Congenital Syphilis)
- Case definitions
- Treatment algorithm
- Clinical staging
- Treatment information

Indiana Department of Health

https://www.in.gov/health/idepd/tuberculosis/#Upcoming On Demand Training

Increase in *Mycoplasma pneumoniae*

- *M. pneumoniae* usually peaks every 3 to 7 years, with variation of strain types contributing to this pattern.
- During fall 2023, started to see a re-emergence globally and since that time, there has been an increase in cases in the U.S.
- *M. pneumoniae* infections are common bacterial respiratory infections that are most common in young adults and school-aged children.
- In 2024 CDC has seen an increase in *M. pneumoniae* infections, including in young children.
  - Keep Mp on the differential diagnosis for respiratory infections, especially if the infection does not respond to beta-lactams
  - Testing can include serology or molecular, such as RVP, if available. IgM can have false positives but if pre-test probability is high it is likely accurate.
- So far macrolide resistance has been low and the patients have been responsive to Azithro

Biofire Respiratory Viral Panel

BIOFIRE® Syndromic Trends

Midwest Region

Respiratory Report
RP2.1

Weekly Detection Rates (%)

9% Region Co-Detection Rate*

High Activity (>3%)	One Week	Three Months	One Week: ■ Three Months: ▨
Human Rhinovirus/Enterovirus	24.7	15.1	
SARS-CoV-2	7.4	8.3	

Medium Activity (1%-3%)	One Week	Three Months	One Week: ■ Three Months: ▨
Mycoplasma pneumoniae	2.5	1.9	
Parainfluenza Virus 1	1.0	0.4	

Indiana Department of Health

Resources about Mp

1. CDC *Mycoplasma pneumoniae* Infection Surveillance and Trends - https://www.cdc.gov/mycoplasma/php/surveillance/index.html
2. Clinical Care of *Mycoplasma pneumoniae* Infection - https://www.cdc.gov/mycoplasma/hcp/clinical-care/index.html
3. Laboratory Testing for *Mycoplasma pneumoniae* - https://www.cdc.gov/mycoplasma/php/laboratories/index.html
4. Submitting Specimens for *Mycoplasma pneumoniae* Testing - https://www.cdc.gov/mycoplasma/php/laboratories/specimen-packing.html
5. MMWR (Notes from the Field): Reemergence of *Mycoplasma pneumoniae* Infections in Children and Adolescents After the COVID-19 Pandemic, United States, 2018-2024 - https://www.cdc.gov/mmwr/volumes/73/wr/mm7307a3.htm?s_cid=mm7307a3_w

Recent Updates from the CDC

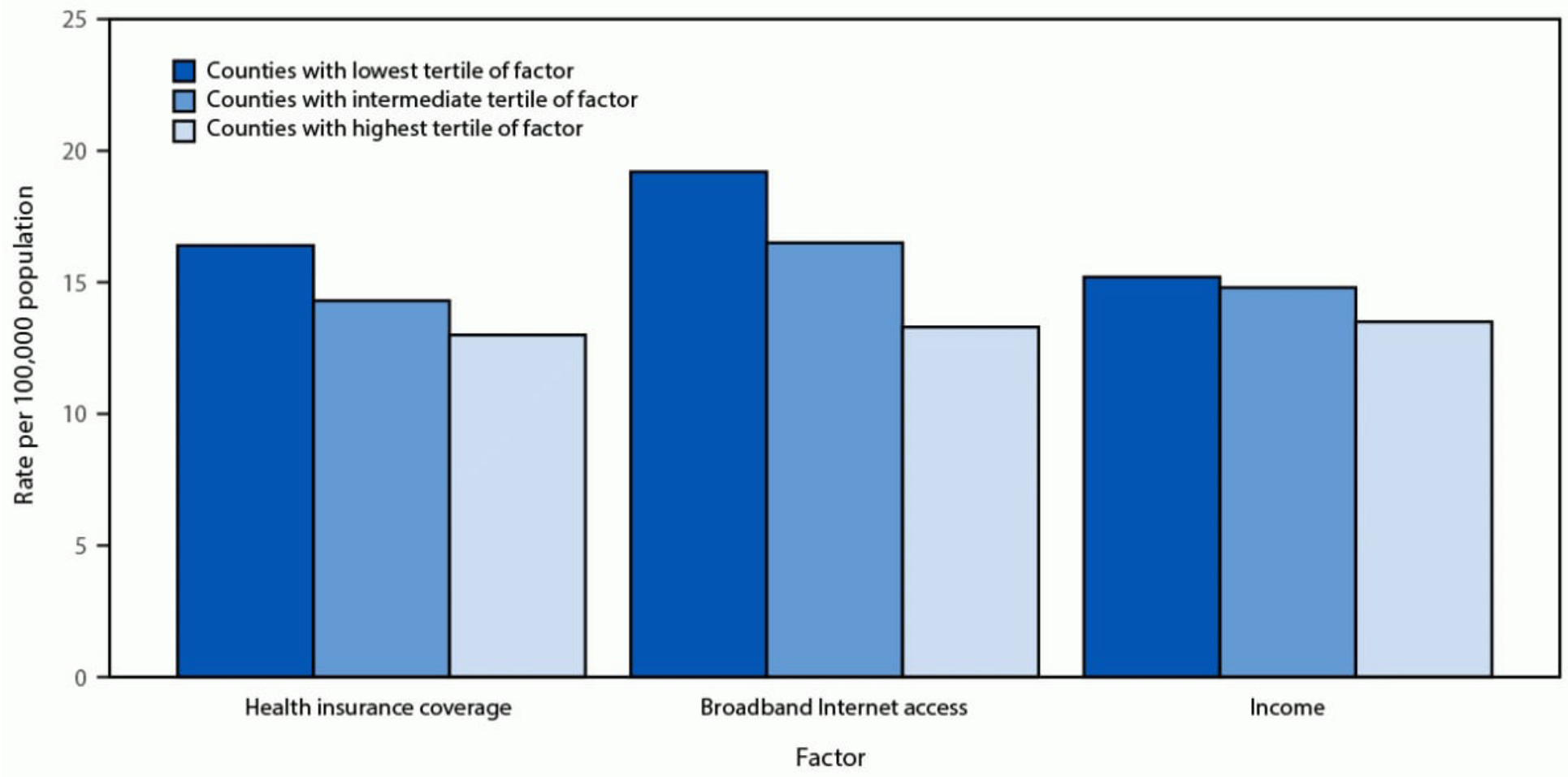
Indiana Department of Health

Suicide Rates and County Level Factors

Indiana Department of Health

https://www.cdc.gov/mmwr/volumes/73/wr/mm7337e1.htm?s_cid=mm7337e1_w

Suicide Rates and County Level Factors



Indiana Department of Health

https://www.cdc.gov/mmwr/volumes/73/wr/mm7337e1.htm?s_cid=mm7337e1_w

Other Public Health Updates

Indiana Department of Health

Niemann-Pick Disease Type C Treatment

- Miplyffa (arimoclomol)
- Oral medication
- Approved to treat neurological symptoms associated with NPC in adults and children 2 years and older
- NPC is a rare genetic disease that results in progressive neurological symptoms and organ dysfunction

FDA NEWS RELEASE

FDA Approves First Treatment for Niemann-Pick Disease, Type C

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ements

For Immediate Release: September 20, 2024

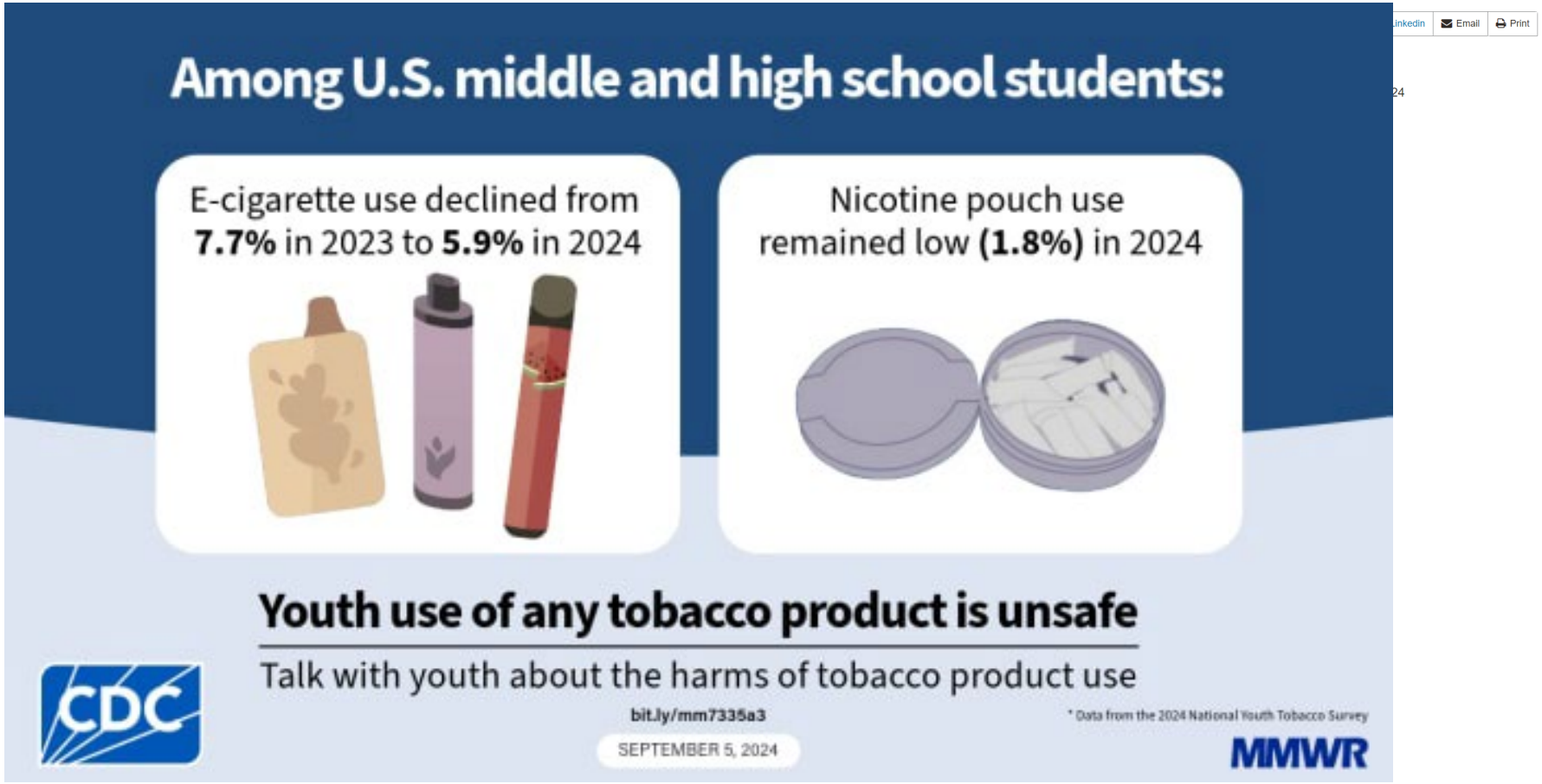
[FDA approves NPC treatment]

Youth E-Cigarette Use Drops

FDA NEWS RELEASE

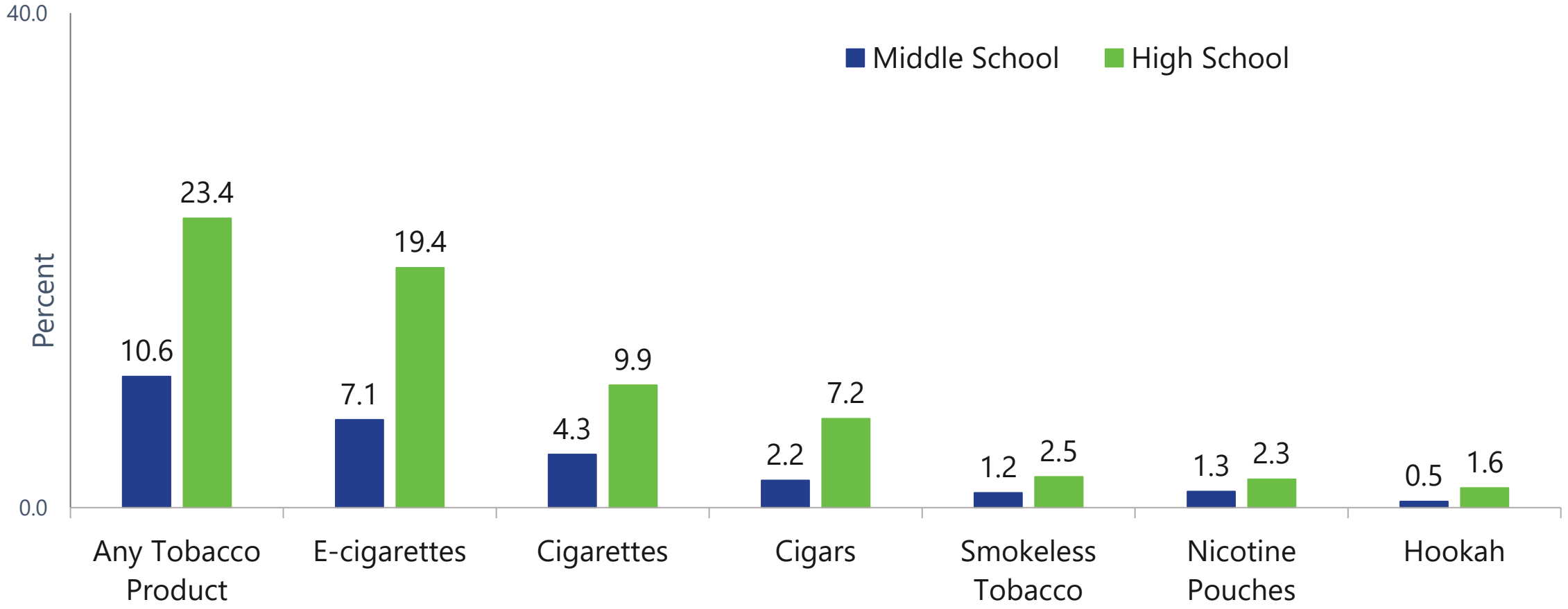
Youth E-Cigarette Use Drops to Lowest Level in a Decade

Youth Use of Nicotine Pouches Remains Low



Indiana Department of Health

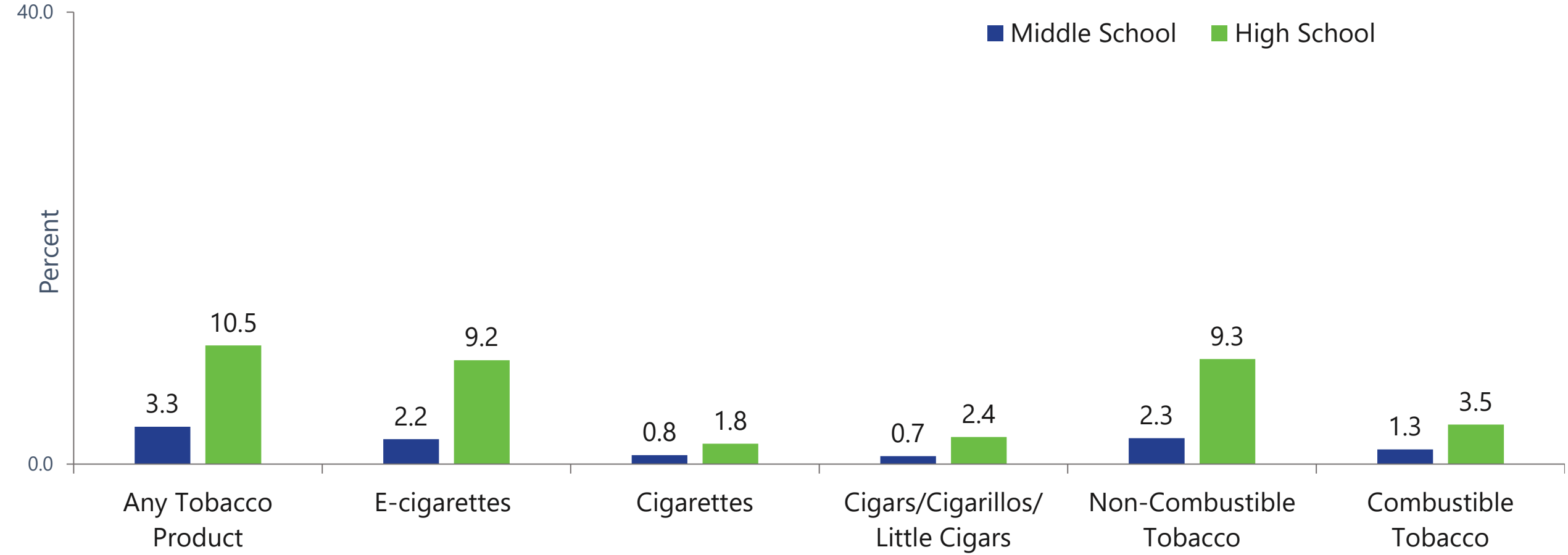
Ever Use of Tobacco Products Among Middle & High School Students, IYTS 2022



Indiana Department of Health

High School: Ever use of cigarettes, cigars, smokeless tobacco, pipe, hookah, snus, dissolvable tobacco, nicotine pouches, e-cigarettes or heated tobacco products.
Middle School: Ever use of cigarettes, cigars, smokeless tobacco, pipe, hookah, snus, dissolvable tobacco, nicotine pouches, or e-cigarettes

Current Use of Tobacco Products Among Middle & High School Students, IYTS 2022



Indiana Department of Health

High School: Current use of cigarettes, cigars, smokeless tobacco, pipe, hookah, snus, dissolvable tobacco, nicotine pouches, e-cigarettes or heated tobacco products.
Middle School: Current use of cigarettes, cigars, smokeless tobacco, pipe, hookah, snus, dissolvable tobacco, nicotine pouches, or e-cigarettes

Health First Indiana

Indiana Department of Health

Funding Status

92 local health departments have opted-in for 2025

100% of the State of Indiana will receive Health First Funding in 2025

Indiana Department of Health

County Health Scorecard

https://www.in.gov/healthfirstindiana/county-health-scorecard/

Statewide Adult Obesity
43.6%

Highest & Lowest Ranked Counties

Hamilton	#1
Monroe	#2
Boone	#3
Steuben	#4
Brown	#5
Posey	#88
Clark	#89
Clay	#90
Washington	#91
Vermillion	#92

Definition

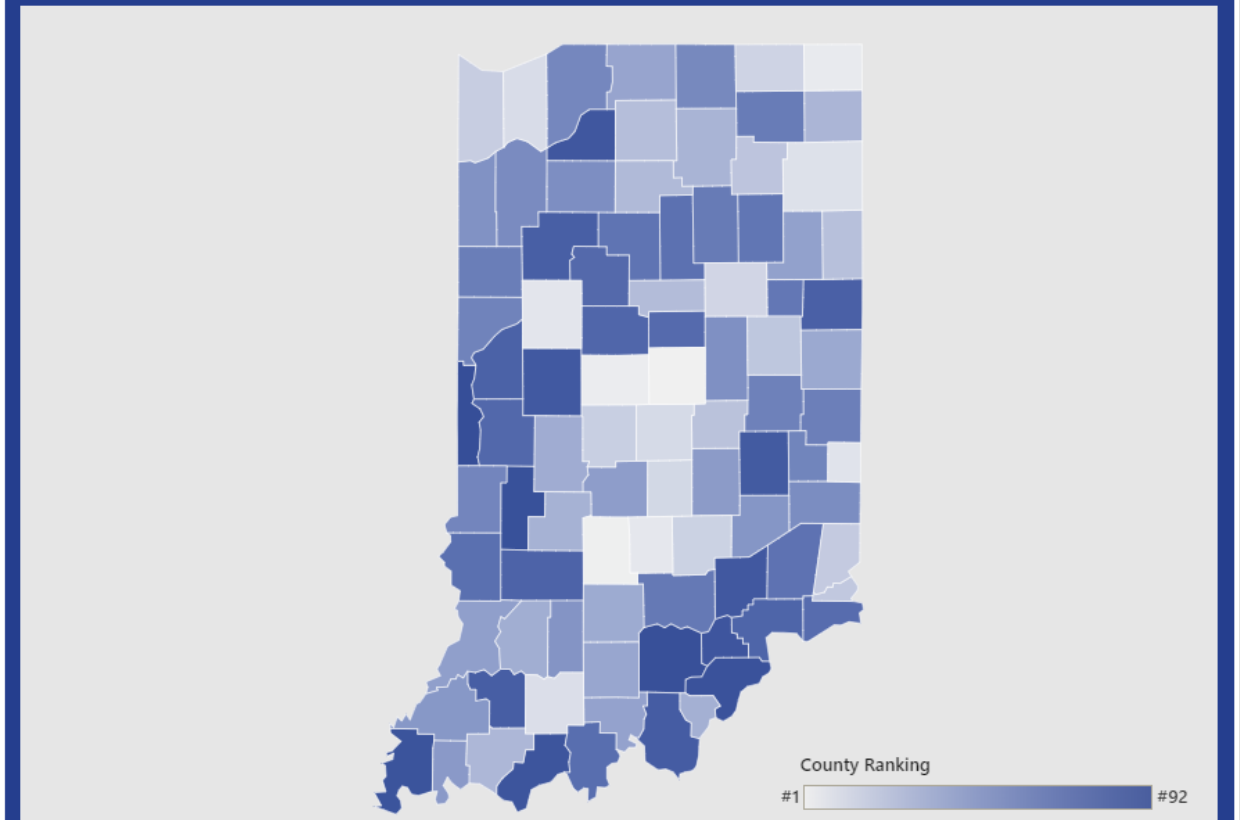
Adult Obesity: % measured is the the percentage of the adult population (ages 20 and older) who have a body mass index (BMI) greater than or equal to 30 kg/m2. The calculated BMI is based on individuals with documented height and weight measurements captured between September 2018 and August 2023 and available in the Indiana Network for Patient Care (INPC).

Year(s) of data used: *2018-2023*

Select Topic

Adult Obesity

Indiana Adult Obesity *(2018-2023)*



County Rankings

County	County Rate	Ranking	County	County Rate	Ranking
Hamilton	35.0%	#1	Martin	46.4%	#46
Monroe	35.3%	#2	Newton	46.4%	#47
Boone	37.7%	#3	Madison	46.4%	#48
Steuben	38.0%	#4	Pulaski	46.6%	#49
Brown	39.8%	#5	Franklin	46.6%	#50
Tippecanoe	41.5%	#6	Jasper	46.6%	#51
Union	42.1%	#7	Elkhart	46.6%	#52
Allen	42.2%	#8	LaPorte	46.8%	#53
Dubois	42.5%	#9	Vigo	46.9%	#54
Porter	42.6%	#10	Fayette	47.0%	#55
Marion	43.2%	#11	Warren	47.1%	#56
Johnson	43.8%	#12	Henry	47.1%	#57
Grant	43.9%	#13	Wayne	47.1%	#58
LaGrange	44.1%	#14	Benton	47.2%	#59
Bartholomew	44.1%	#15	Noble	47.3%	#60
Hendricks	44.2%	#16	Wabash	47.4%	#61
Lake	44.7%	#17	Jackson	47.5%	#62
Dearborn	44.7%	#18	Blackford	47.5%	#63
Ohio	44.7%	#19	Huntington	47.5%	#64
Delaware	44.7%	#20	Cass	47.5%	#65
Whitley	44.8%	#21	Ripley	47.5%	#66
Hancock	44.9%	#22	Miami	47.8%	#67
Adams	45.1%	#23	Sullivan	47.9%	#68
Marshall	45.2%	#24	Perry	47.9%	#69
Howard	45.2%	#25	Switzerland	47.9%	#70
Fulton	45.2%	#26	Tipton	47.9%	#71
Warrick	45.2%	#27	Carroll	47.9%	#72
DeKalb	45.3%	#28	Parke	48.0%	#73
Kosciusko	45.4%	#29	Clinton	48.0%	#74
Owen	45.7%	#30	Jefferson	48.1%	#75
Floyd	45.8%	#31	Greene	48.2%	#76
Daviess	45.8%	#32	Fountain	48.2%	#77
Putnam	45.8%	#33	Jay	48.3%	#78
Lawrence	46.0%	#34	White	48.3%	#79
Randolph	46.0%	#35	Pike	48.3%	#80
Orange	46.1%	#36	Harrison	48.5%	#81
St. Joseph	46.2%	#37	Rush	48.6%	
Crawford	46.2%	#38	Montgomery	48.7%	
Wells	46.3%	#39	Jennings	48.8%	
Knox	46.3%	#40	Starke	48.8%	
Morgan	46.3%	#41	Scott	49.0%	
Shelby	46.3%	#42	Spencer	49.1%	
Vanderburgh	46.3%	#43	Posey	49.6%	
Gibson	46.3%	#44	Clark	50.1%	#89
Decatur	46.4%	#45	Clay	50.3%	#90
Martin	46.4%	#46	Washington	50.6%	#91
			Vermillion	51.0%	#92

Harrison County
Metric: Adult Obesity
Rank: #81
Rate: 48.5%

Source: Indiana Network for Patient Care (INPC), Indiana Health Information Exchange and Regenstrief Institute (2018-2023)

January – August 2024

Activity Tracker - Statewide

Core Service	Number of Services Provided
Access & Linkage to Clinical Care	23,367
Child & Adult Immunizations	68,953
Childhood Lead Screening & Case Management	11,517
Chronic Disease Prevention & Reduction	40,998
Emergency Preparedness	8,344
Fatality Review (Child, Infant, Fetal, Suicide, Overdose)	16,083
Infectious Disease Prevention and Control	77,971
Maternal and Child Health	70,262
Student Health/School Health Liaison	140,040
Tobacco Prevention and Cessation	32,750
Trauma and Injury Prevention and Education	59,549
Tuberculosis (TB) Prevention and Case Management	40,746
TOTAL NUMBER OF SERVICES PROVIDED	**590,580**

Pledge to Act

- Indiana Hospital Association (IHA) and Indiana Chamber of Commerce have committed to supporting public health efforts
- Pledge was created as a collaboration between healthcare organizations and businesses to help Hoosiers reach their optimal health
- **All Indiana Hospital Association members have taken the pledge**

Indiana Department of Health

https://www.in.gov/healthfirstindiana/pledge-to-act/

Success Story: Lake County

- In partnership with Franciscan Health, Lake County Health Department (LCHD) kicked off a six-week event series called “Walk with a Doc”
- One-hour walking sessions begin with an educational discussion led by a physician or clinical staff member. Participants meet at Lake County Health Department and are eligible for fun incentives.
- First walking session took place on Sept. 12 and featured a kidney specialist. The walks provide an opportunity for attendees to participate in physical activity and ask clinicians questions.

Success Story: Wells County

- Wells CHD hosted free community baby shower on Sept. 5
- New and expecting mothers were eligible for prizes like play packs, strollers, car seats, highchairs, diapers, wipes and baby food. About 80 participants visited each vendor and went home with much-needed baby supplies and food.
- Brought several key partners together to better serve families in Wells County and share information on local resources

Public Health Day at the Statehouse

- Show support for public health by wearing blue and gold

Features:

- A celebration of an investment in public health
- Partnerships in action
- Local Health Department Awards
- Networking and light refreshments
- Save the date: March 12

Indiana Department of Health

Call to Action

- Join the conversations about public heath funding in your county
- Remember, there is no one-size-fits-all approach
- Remember that better physical and mental health makes Indiana more attractive for families, businesses
- The bottom line: Health First Indiana is **all** of us!

Useful Resources

Indiana Department of Health

Safe Sleep ASL videos

Music/With Closed Captioning
Music/Without Closed Captioning
Fully Silent/Without Closed Captioning

Indiana Department of Health

Ways to connect with us

- Access our webpage with resources for clinicians
- Please let us know what topics you'd like us to cover: Email Gcrowder@health.in.gov
- Sign up for IHAN– Indiana Health Alert Network https://ihan-in.org
- MARK YOUR CALENDARS - Clinician webinars for 2024: Oct. 25, Nov. 22, Dec. 27

Questions?

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Next call: Noon, October 25