Indiana Department of Health

CLINICIAN UPDATES

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

7/26/2024

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.

July 2024 Clinician Update

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.)

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Arboviral Disease in Indiana

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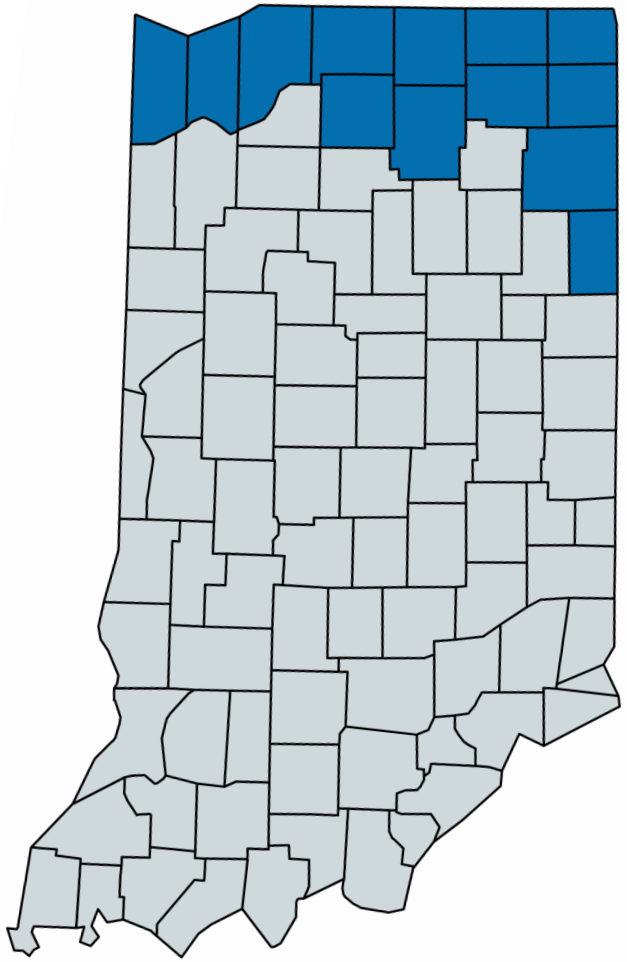
ARBOVIRAL DISEASE IN INDIANA

KIRA RICHARDSON

VECTOR-BORNE AND ZOONOTIC DISEASE EPIDEMIOLOGIST

Arboviral Disease in Indiana

- The most common reported arbovirus in Indiana is West Nile virus
  - Virus has been detected in mosquitoes collected from multiple Indiana counties in 2024.
  - Two human cases of WNV disease has been reported in Lake County.
- REMINDER: Hoosiers residing in the northern part of the states in a 13-county area are at risk for Eastern Equine Encephalitis (EEE) virus.
- Virus detections in mosquitoes, humans, and horses can be viewed on the IDOH Mosquito-Borne Activity Dashboard which is updated weekly throughout the mosquito season.



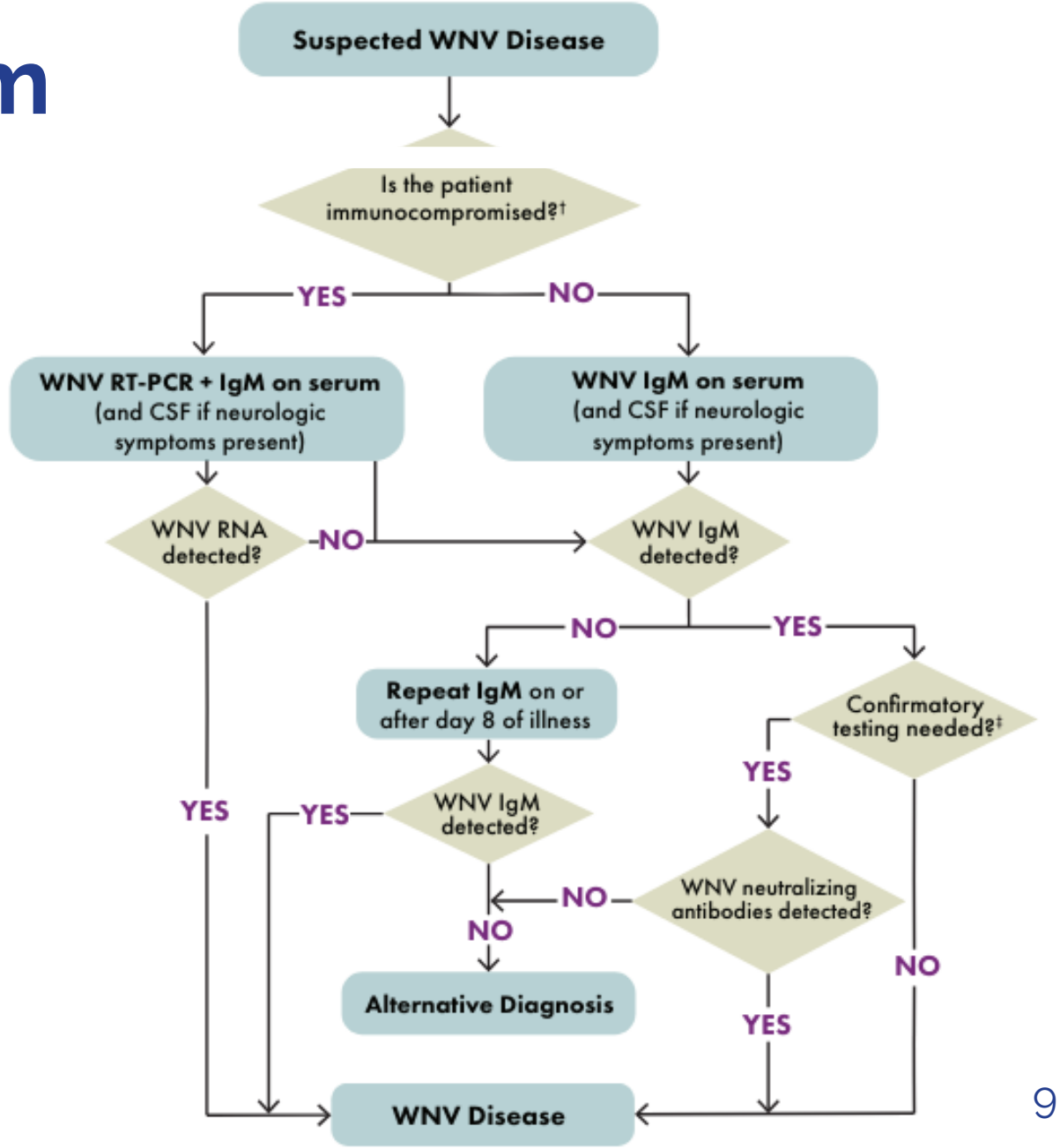
Counties at risk for EEE virus

When to consider testing for West Nile virus or other Arboviruses

- It is important to ask about each patient's recent travel history and potential exposures.
- Consider testing for WNV for patients presenting with these clinical syndromes and no recent travel history:
  - Viral encephalitis
  - Viral meningitis
  - Poliomyelitis-like syndromes
  - Unexplained febrile illness
- Other endemic arboviruses (Eastern equine Encephalitis virus and California serogroup viruses incl. La Crosse) should also be considered in the differential of suspected WNV.
- Consider testing for non-endemic tick-borne arboviruses such as Powassan virus for patients reporting tick bites with travel to an endemic area.

WNV Testing Algorithm

[West Nile virus Diagnostic Testing Algorithm]



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What labs test for WNV and other arboviruses?

- Several commercial labs also test for arboviruses including ARUP (Associated Regional and University Pathologists), LabCorp, Mayo Clinic, Quest Diagnostics, and others.
- Indiana Department of Health Laboratories (IDOHL) can perform serologic testing for West Nile virus and other endemic arboviruses. Testing at IDOHL can be requested when commercial testing is unavailable.
- The Centers for Disease Control and Prevention (CDC) can perform molecular and serologic testing for all arboviruses
  - Any testing requests for CDC must be sent through the Indiana Department of Health Laboratory (IDOHL) first.
- For sending a specimen for testing at IDOHL or CDC (through IDOHL), follow the arbovirus specimen collection and submission instructions here: https://www.in.gov/health/laboratories/testing/arbovirus/

Does IDOHL test for travel-related arboviruses?

- IDOHL can perform PCR testing for Zika, chikungunya, and dengue viruses using the Trioplex assay* for patients meeting the following criteria:
  - must have a compatible clinical illness **and**
  - travel to an endemic area
- For requesting Trioplex testing at IDOHL, please contact Kira Richardson, vector-borne and zoonotic disease epidemiologist, at (317) 234-9727

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*Testing at IDOHL using trioplex must be approved by VBZD epi

Dengue Health Advisory

Increased Risk of Dengue Virus Infections in the United States

Print

HAN HEALTH ALERT NETWORK

This is an official CDC HEALTH ADVISORY

Distributed via the CDC Health Alert Network
June 25, 2024, 2:30 PM ET
CDCHAN-00511

Summary

The Centers for Disease Control and Prevention (CDC) is issuing this Health Alert Network (HAN) Health Advisory to notify healthcare providers, public health authorities and the public of an increased risk of dengue virus (DENV) infections in the United States in 2024. Global incidence of dengue in 2024 has been the highest on record for this calendar year; many countries are reporting higher-than-usual dengue case numbers. In 2024, countries in the Americas have reported a record-breaking number of dengue cases, exceeding the highest number ever recorded in a single year. From January 1 – June 24, 2024, countries in the Americas reported more than 9.7 million dengue cases, twice as many as in all of 2023 (4.6 million cases). In the United States, Puerto Rico has declared a public health emergency (1,498 cases) and a higher-than-expected number of dengue cases have been identified among U.S. travelers (745 cases) from January 1 –

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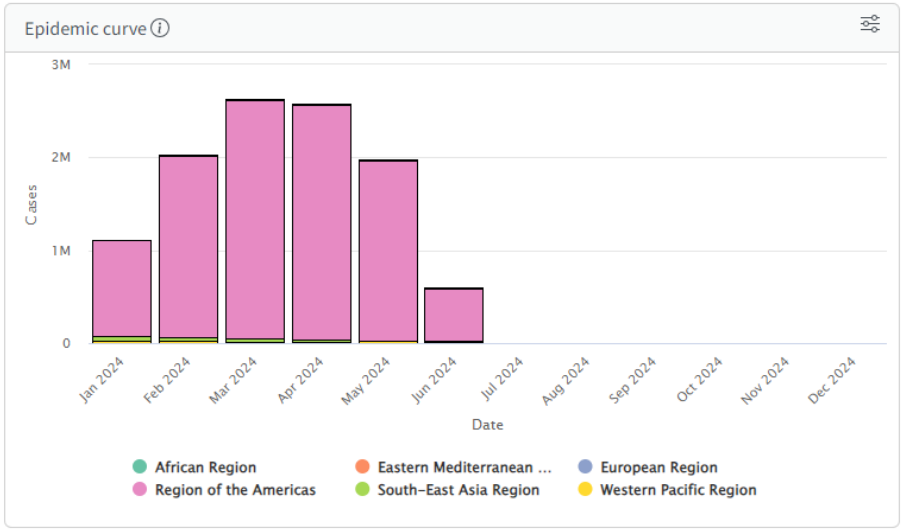
https://emergency.cdc.gov/han/2024/han00511.asp

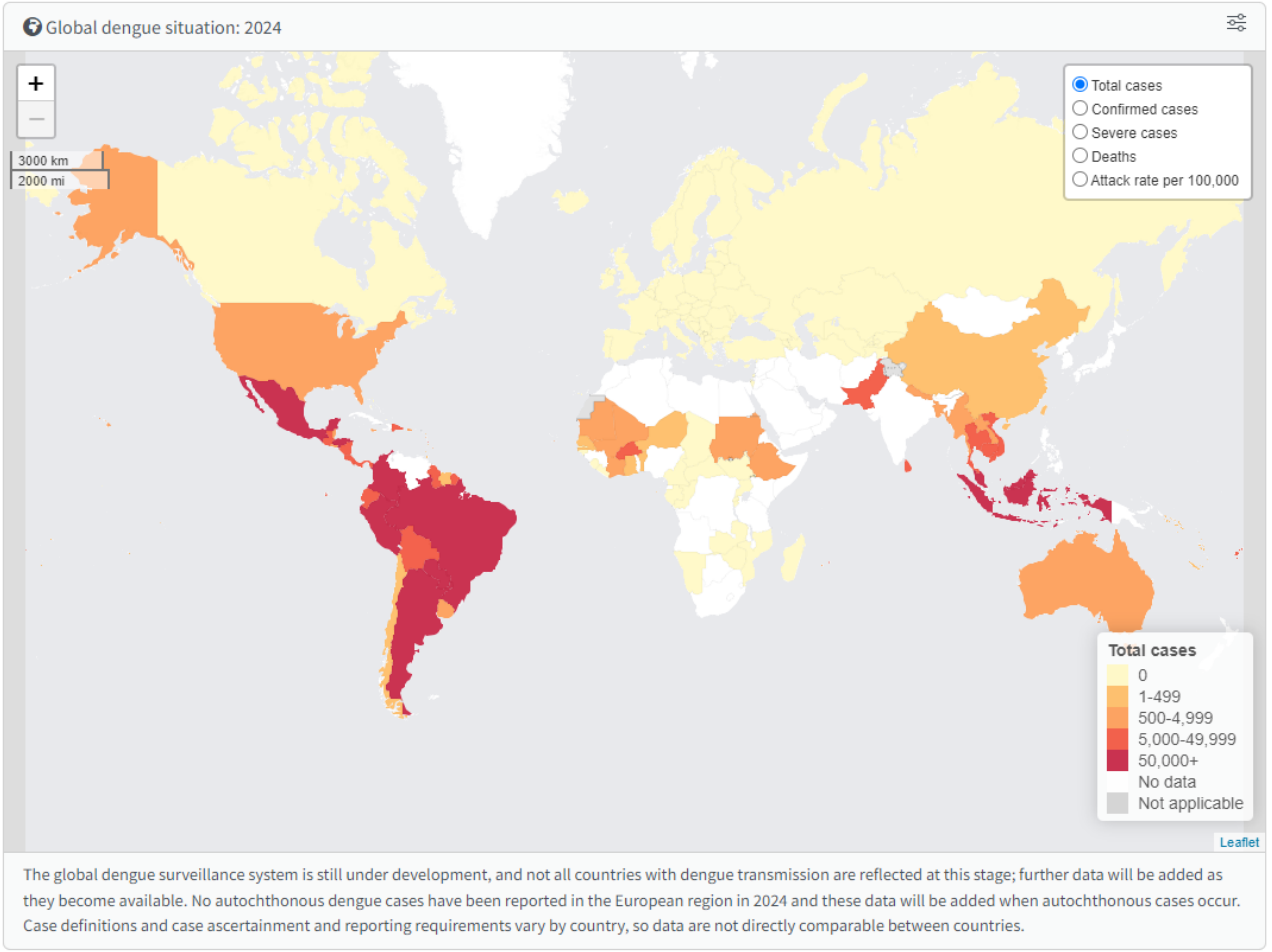
Global Dengue Situation

Total cases	Severe cases
10 925 425	24 631

Lab confirmed cases	Total deaths
5 658 803	6 508

Trend | Table by region | Table by country/area/territory





The global dengue surveillance system is still under development, and not all countries with dengue transmission are reflected at this stage; further data will be added as they become available. No autochthonous dengue cases have been reported in the European region in 2024 and these data will be added when autochthonous cases occur. Case definitions and case ascertainment and reporting requirements vary by country, so data are not directly comparable between countries.

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Source: World Health Organization, https://worldhealthorg.shinyapps.io/dengue_global/
Data reported as of 22 July 2024

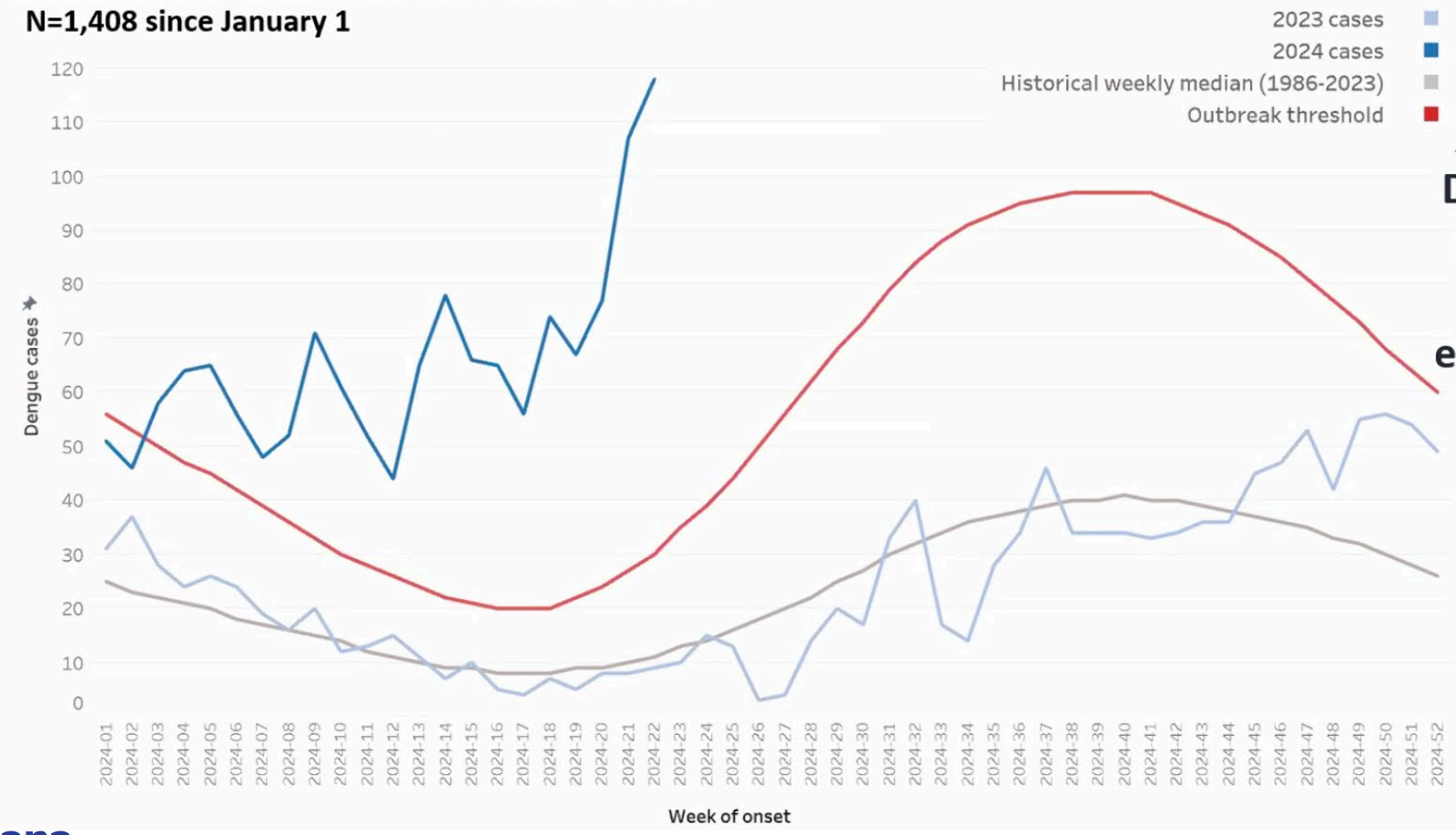
In Puerto Rico, there are concerning signs of a potential large outbreak with many weeks above the threshold.

Dengue cases (PCR or IgM positive) compared to the historical weekly median, and outbreak threshold, *Puerto Rico*, 2024.

Last updated: June 19, 2024 - Data are preliminary and subject to change.

Case counts from the most recent week (Week 22) are still preliminary.

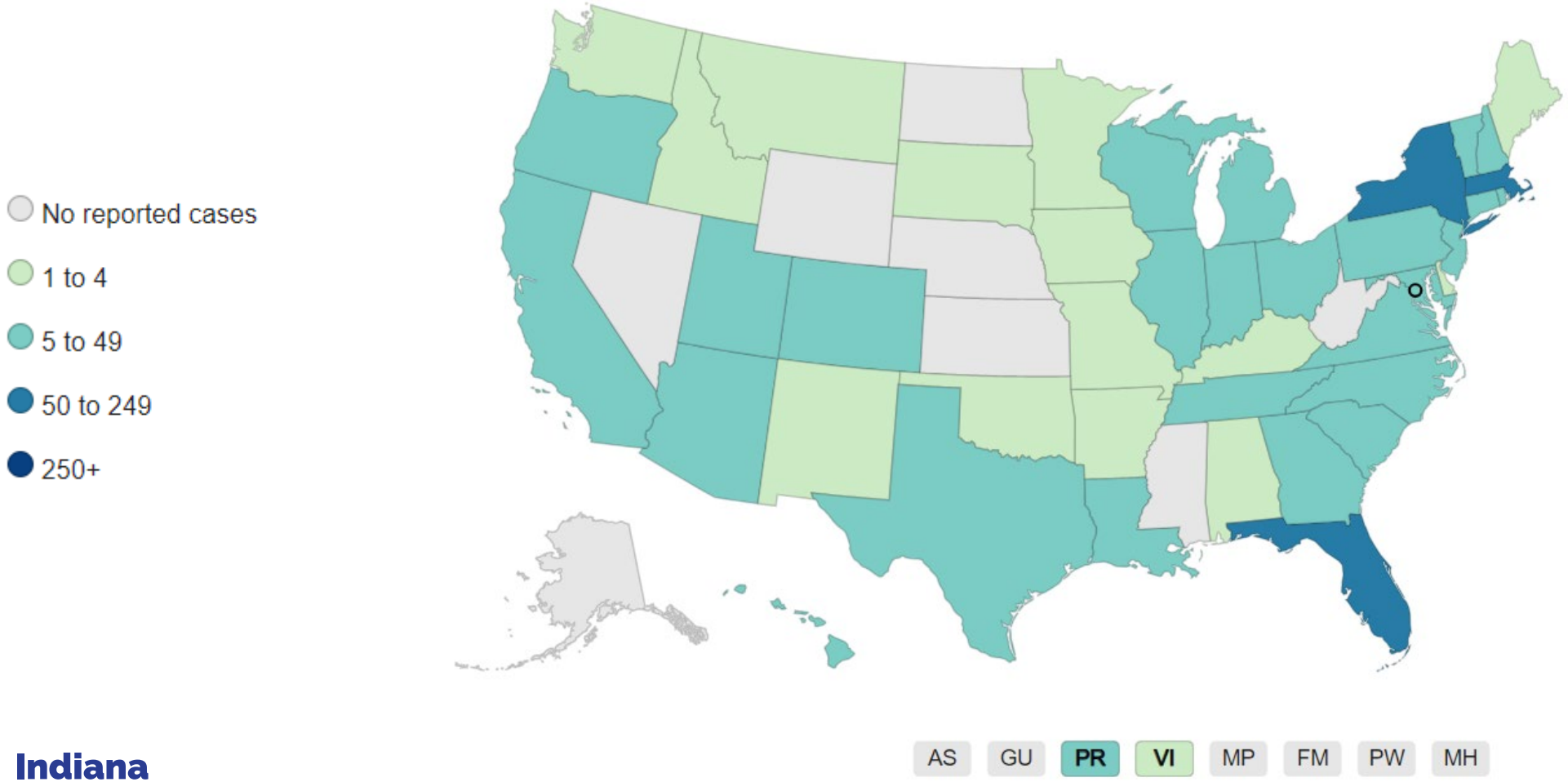
N=1,408 since January 1



DENV infections in Puerto Rico have been above the epidemic threshold for 20 weeks.

Source: Arbonet, June 19

Travel associated dengue cases by jurisdiction of residence in U.S. states and territories, 2024



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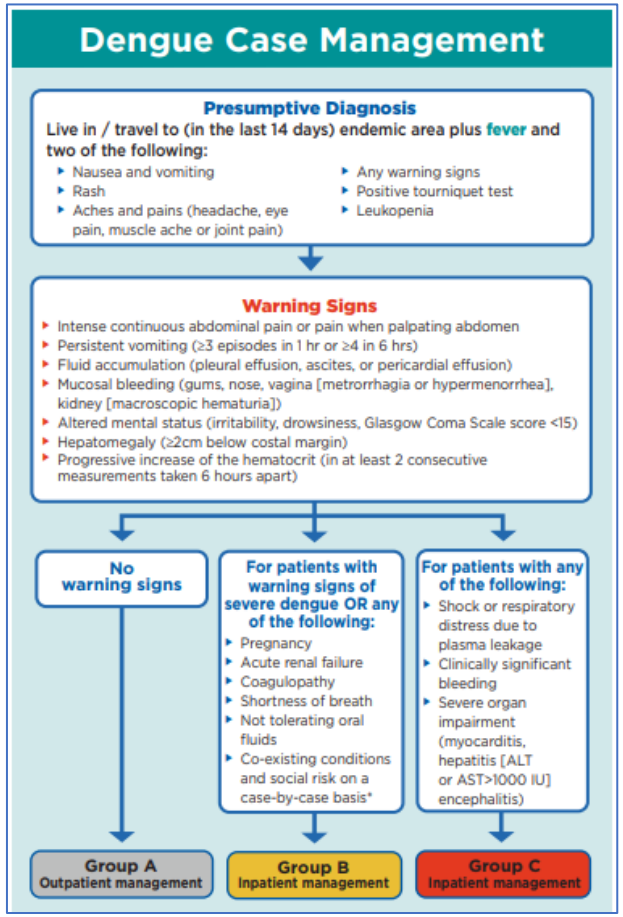
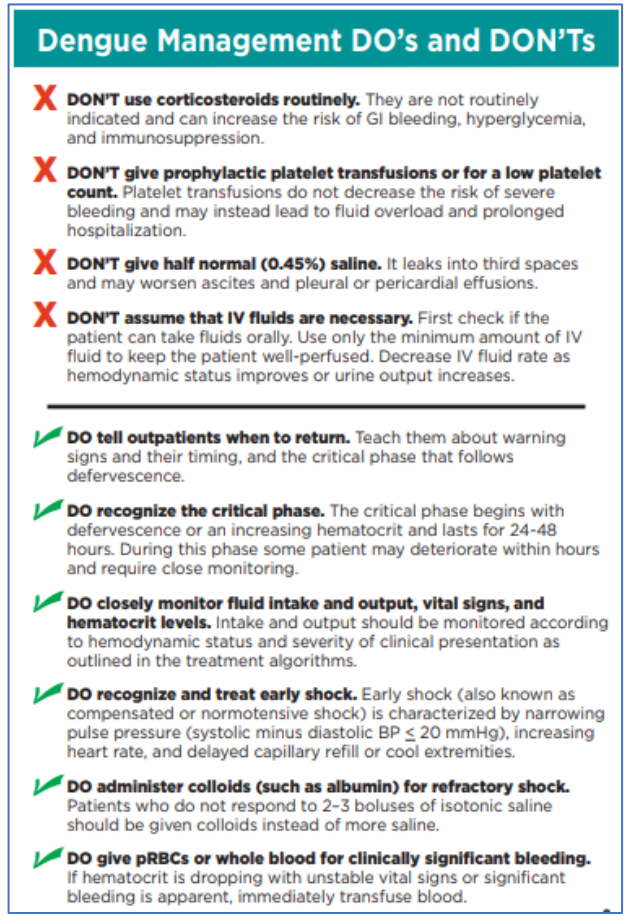
Recommendations for Healthcare Providers

Have increased suspicion of dengue in febrile, returning travelers from an area with risk of dengue





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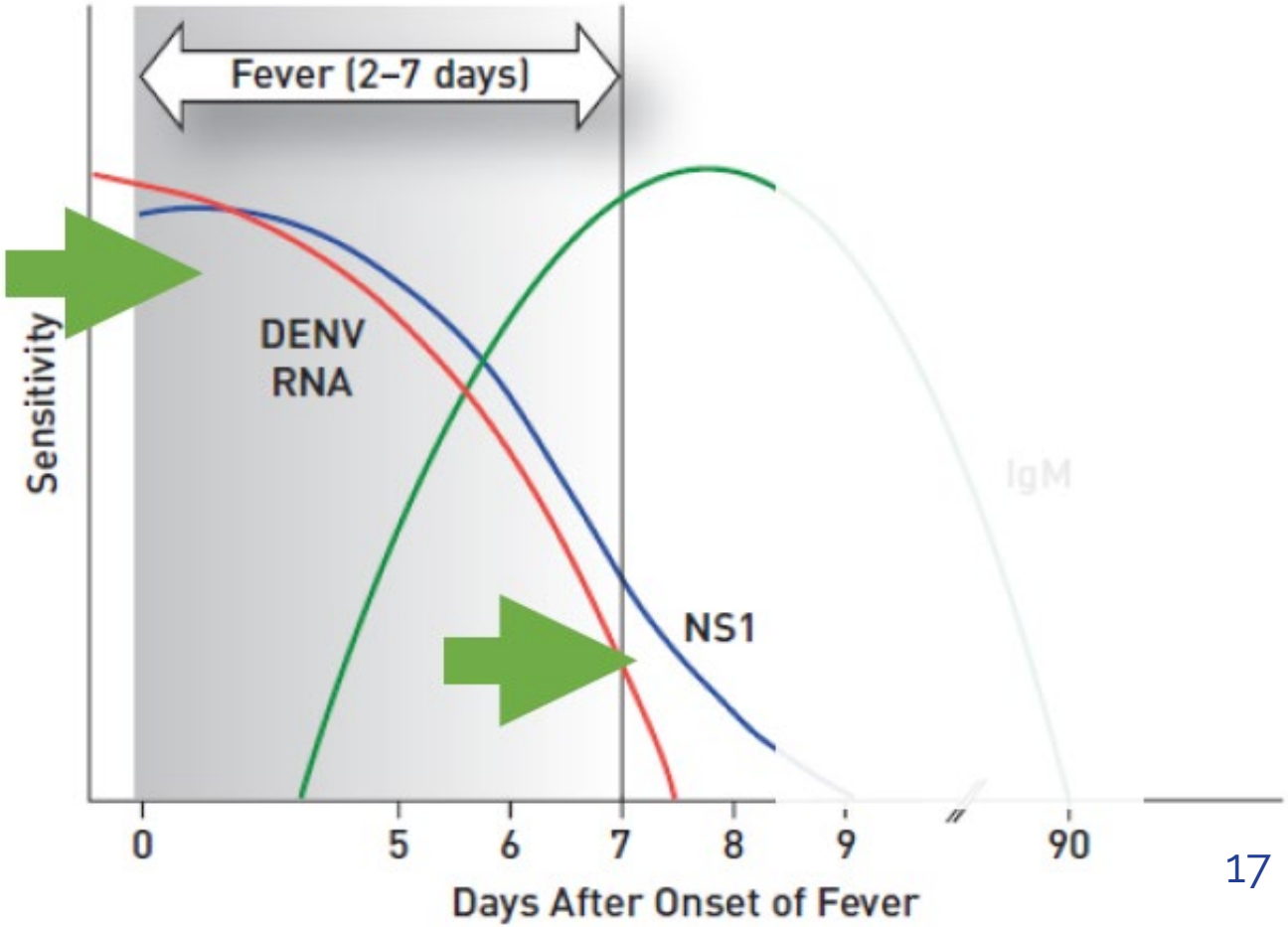
[Dengue Pocket Guide]

Recommendations for Healthcare Providers

Order appropriate diagnostic tests for acute DENV infection

Within 7 days of illness onset, test with:

RT-PCR + IgM Ab tests, or NS1 Ag tests



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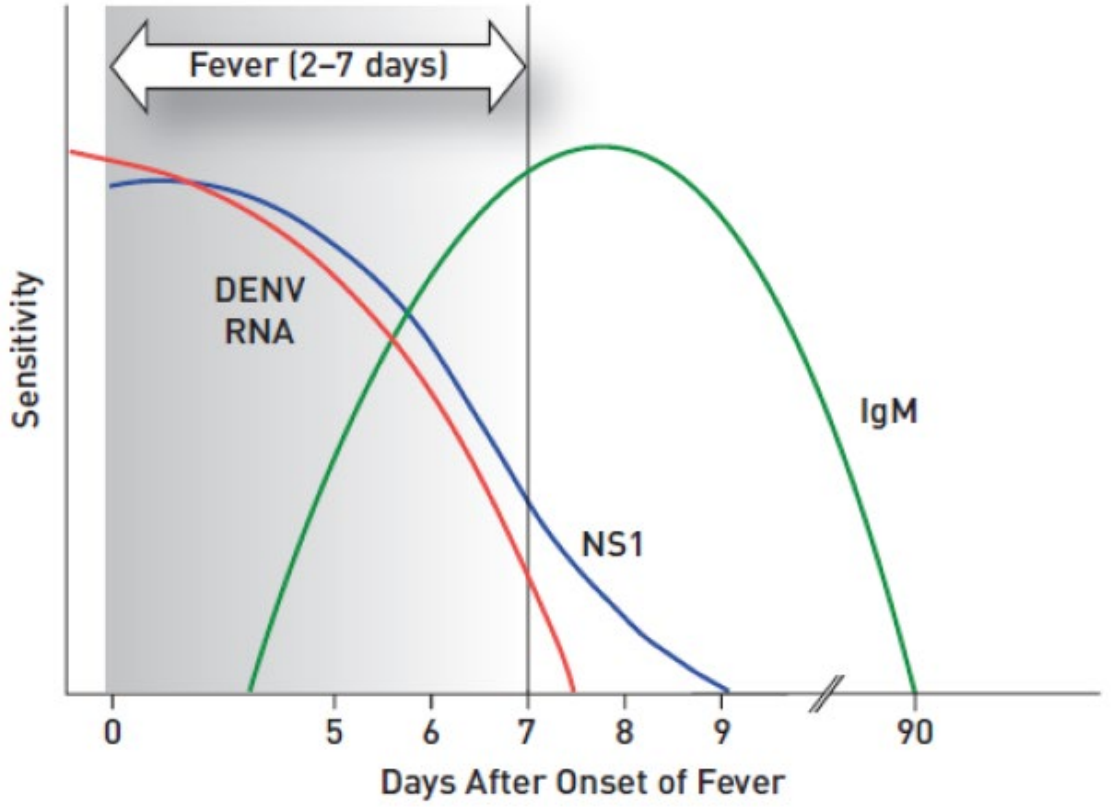
Recommendations for Healthcare Providers

Order appropriate diagnostic tests for acute DENV infection

> 7 days after illness onset, test with:
IgM Ab tests and consider RT-PCR*

*** (lower sensitivity compared to days (0–7)**



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Recommendations for Healthcare Providers

Ensure timely reporting of dengue cases to public health authorities

Dengue is reportable within one working day
Healthcare providers are required to report clinical cases in addition to laboratory reporting

NBS users: Report conditions via Morbidity Report in NBS
Non-NBS users: Report with CDR form

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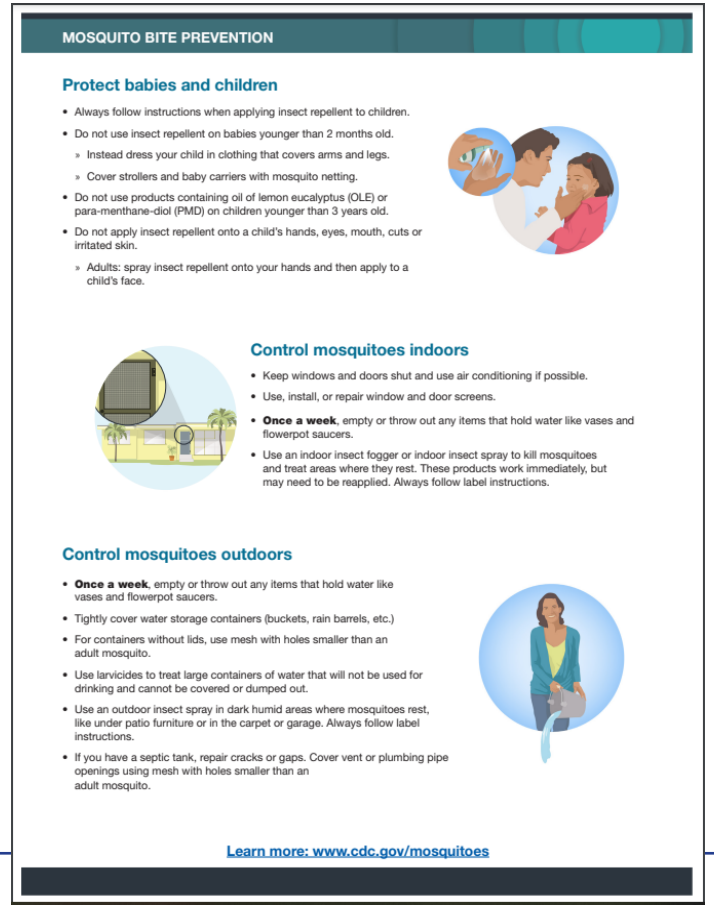
Recommendations for Healthcare Providers

Promote mosquito bite prevention measures with your patients during pre-travel and routine appointments



MOSQUITO BITE PREVENTION

Protect babies and children

- Always follow instructions when applying insect repellent to children.
- Do not use insect repellent on babies younger than 2 months old.
  - Instead dress your child in clothing that covers arms and legs.
  - Cover strollers and baby carriers with mosquito netting.
- Do not use products containing oil of lemon eucalyptus (OLE) or para-menthane-diol (PMD) on children younger than 3 years old.
- Do not apply insect repellent onto a child's hands, eyes, mouth, cuts or irritated skin.
  - Adults: spray insect repellent onto your hands and then apply to a child's face.

Control mosquitoes indoors

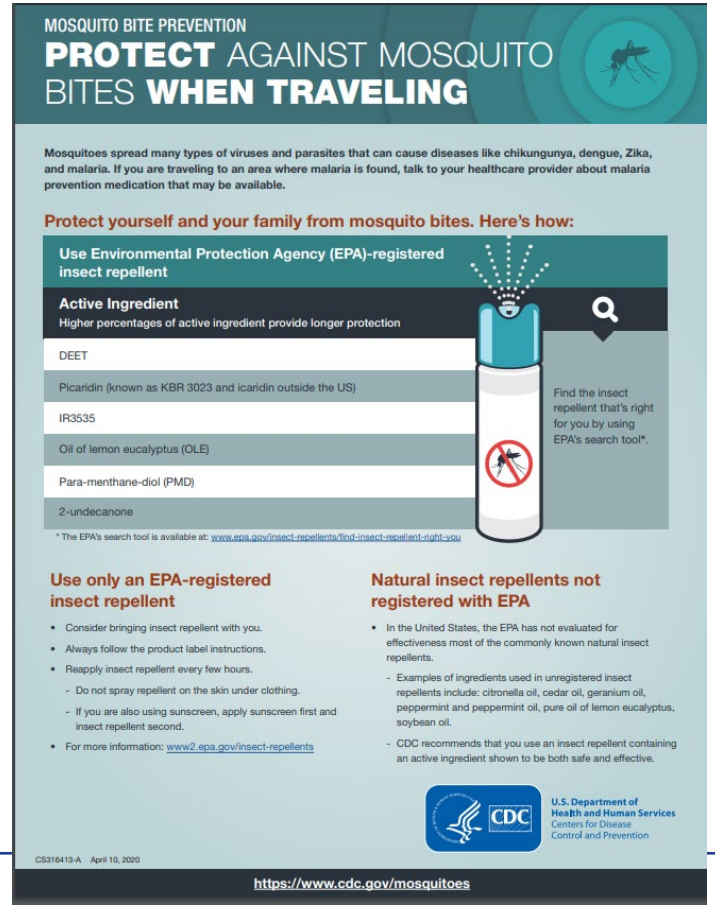
- Keep windows and doors shut and use air conditioning if possible.
- Use, install, or repair window and door screens.
- **Once a week**, empty or throw out any items that hold water like vases and flowerpot saucers.
- Use an indoor insect fogger or indoor insect spray to kill mosquitoes and treat areas where they rest. These products work immediately, but may need to be reapplied. Always follow label instructions.

Control mosquitoes outdoors

- **Once a week**, empty or throw out any items that hold water like vases and flowerpot saucers.
- Tightly cover water storage containers (buckets, rain barrels, etc.)
- For containers without lids, use mesh with holes smaller than an adult mosquito.
- Use larvicides to treat large containers of water that will not be used for drinking and cannot be covered or dumped out.
- Use an outdoor insect spray in dark humid areas where mosquitoes rest, like under patio furniture or in the carpet or garage. Always follow label instructions.
- If you have a septic tank, repair cracks or gaps. Cover vent or plumbing pipe openings using mesh with holes smaller than an adult mosquito.

Learn more: www.cdc.gov/mosquitoes

[Mosquito Bite Prevention]



MOSQUITO BITE PREVENTION

PROTECT AGAINST MOSQUITO BITES WHEN TRAVELING

Mosquitoes spread many types of viruses and parasites that can cause diseases like chikungunya, dengue, Zika, and malaria. If you are traveling to an area where malaria is found, talk to your healthcare provider about malaria prevention medication that may be available.

Protect yourself and your family from mosquito bites. Here's how:

Use Environmental Protection Agency (EPA)-registered insect repellent

Active Ingredient Higher percentages of active ingredient provide longer protection
DEET
Picaridin (known as KBR 3023 and icaridin outside the US)
IR3535
Oil of lemon eucalyptus (OLE)
Para-menthane-diol (PMD)
2-undecanone

Find the insect repellent that's right for you by using EPA's search tool*.

* The EPA's search tool is available at: www.epa.gov/insect-repellents/find-insect-repellent-right-you

Use only an EPA-registered insect repellent

- Consider bringing insect repellent with you.
- Always follow the product label instructions.
- Reapply insect repellent every few hours.
  - Do not spray repellent on the skin under clothing.
  - If you are also using sunscreen, apply sunscreen first and insect repellent second.
- For more information: www2.epa.gov/insect-repellents

Natural insect repellents not registered with EPA

- In the United States, the EPA has not evaluated for effectiveness most of the commonly known natural insect repellents.
  - Examples of ingredients used in unregistered insect repellents include: citronella oil, cedar oil, geranium oil, peppermint and peppermint oil, pure oil of lemon eucalyptus, soybean oil.
  - CDC recommends that you use an insect repellent containing an active ingredient shown to be both safe and effective.

CDC U.S. Department of Health and Human Services Centers for Disease Control and Prevention

CS316413-A April 10, 2020

https://www.cdc.gov/mosquitoes

[Mosquito Prevention for Travelers]

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Questions?

Kira Richardson
Vector-Borne and Zoonotic Disease Epidemiologist
kirrichardson@health.in.gov

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INFANT MORTALITY RATE AND BIRTH OUTCOMES DASHBOARDS

HALEY HANNANT, MPH

MATERNAL AND CHILD HEALTH EPIDEMIOLOGY DIRECTOR

Infant mortality rates (IMRs)
2014-2023

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Indiana	7.1	7.3	7.5	7.3	6.8	6.5	6.6	6.7	7.2	6.6
U.S.	5.8	5.9	5.9	5.8	5.7	5.6	5.4	5.4	5.6	5.5*
HP 2030 Goal	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0

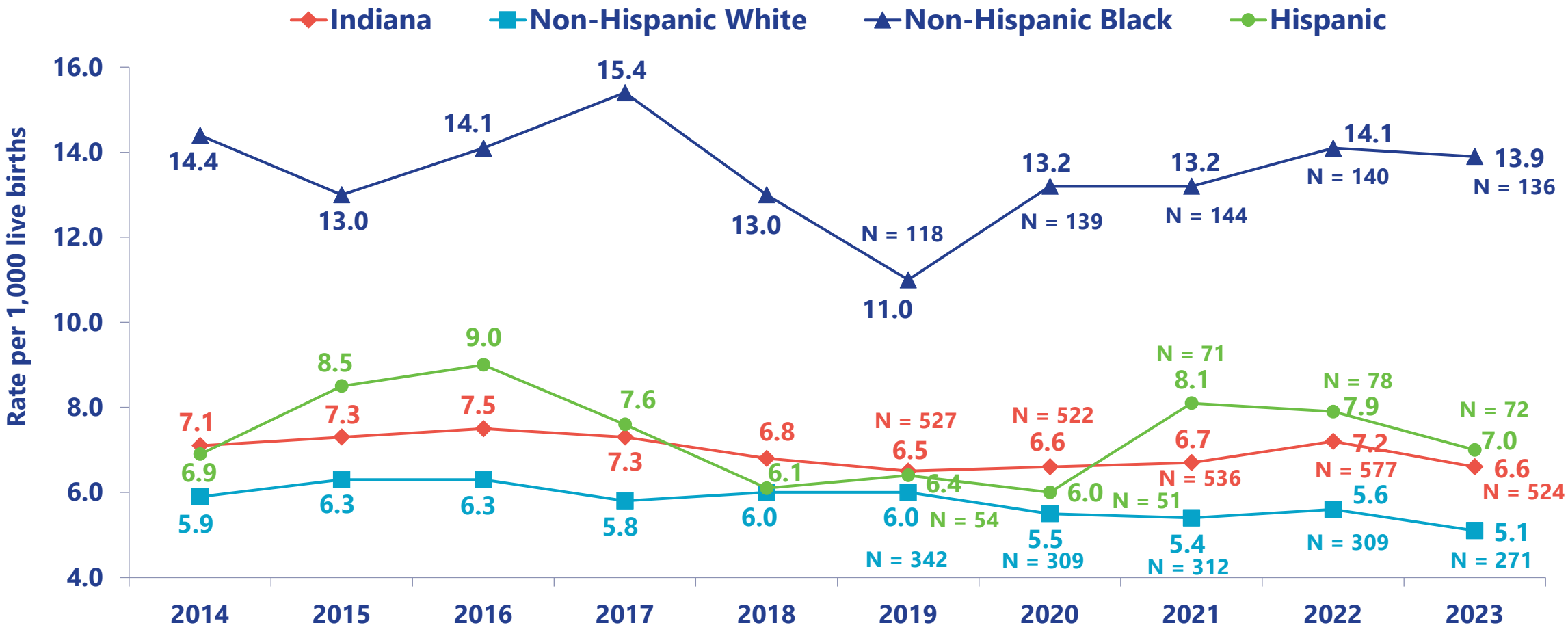
*U.S. 2023 infant mortality rate is provisional and subject to change.

Indiana Department of Health

Source: Indiana Department of Health, Family Health Data and Fatal Prevention Division [July 15, 2024]
United States Original Source: Centers for Disease Control and Prevention National Center for Health Statistics
Indiana Original Source: Indiana Department of Health, Vital Records, ODA, DAT

Indiana IMRs by race and ethnicity

2014-2023



Indiana Department of Health

Source: Indiana Department of Health, , Family Health Data and Fatal Prevention Division [July 15, 2024]
Indiana Original Source: Indiana Department of Health, Vital Records, ODA, DAT

Live demonstration

Scan this QR code to access the dashboards

Indiana Department of Health

https://www.in.gov/health/mch/data

Questions?

Haley Hannant
Maternal and Child Health Epidemiologist
HHannant@health.in.gov

Highly Pathogenic Avian Influenza (HPAI)

Indiana Department of Health

A(H5N1) Bird Flu Update

Indiana Update – No cases in animals or human, risk remains low

National Update

- 11 human cases in the United States (since 2022)
- 10 of these cases have been in 2024
  - 4 cases following exposure to dairy cows
  - 6 cases following exposure to poultry
- A total of 6 cases have been associated with a *single* poultry outbreak in Colorado – all have had mild symptoms and were exposed during depopulation activities.
- CDC's analysis of the genetic sequence from one of the Colorado poultry farm workers show that it is closely related to the first human case discovered in Michigan. There were no changes identified that would be associated with antiviral resistance.
- **H5 monitoring** – national influenza surveillance shows no indication of unusual activity in people, including avian influenza A(H5)

https://www.cdc.gov/bird-flu/situation-summary/index.html

A(H5N1) Bird Flu Update - Seroprevalence

- Preliminary results from a Michigan-led seroprevalence investigation
  - CDC analyzed blood collected from people who were exposed to dairy cattle that were known to be infected with A(H5N1)
    - 35 Michigan dairy workers – from multiple counties
    - Most worked directly with sick cows and fewer than half used PPE
    - Samples tested for antibodies (microneutralizations and hemagglutination inhibition assays) against A(H5N1) and seasonal flu
    - None of the 35 people showed neutralizing antibodies (sign of prior infection) to A(H5N1)
    - Many of the people showed they had prior infection to seasonal flu
  - Data suggests that **seroprevalence to A(H5N1) is low even for workers who have known exposures**

COCA Call July 16: Update on Highly Pathogenic Avian Influenza A (H5N1)

- Clinical presentation could be similar to other common respiratory infections, remember conjunctivitis
- Consider the diagnosis in **appropriate exposure context**
  - close, prolonged, or unprotected exposures to infected animals including livestock, or to environments contaminated by infected animals and unprotected exposure to a symptomatic person with H5N1 virus infection
- Pasteurization kills A(H5N1) viruses and pasteurized milk is safe to drink. People should not drink raw milk or consume products made from raw milk.
- If suspected case, clinicians should contact IDOH to obtain approval for testing if considering the possibility of HPAI A(H5N1) in a patient with compatible illness and relevant exposure history. o Monday–Friday, 8:15 a.m.–4:45 p.m., 317-233-7125 o After hours and holidays: 317-233-1325 o Specimens, as directed by IDOH would be collected for testing at the IDOH Laboratory
- For further clinical information see the COCA call slides at the link below

Blood Culture Bottle Shortages

Indiana Department of Health

Blood Culture Media Bottle Shortages

- The U.S. Food and Drug Administration (FDA) is aware that the U.S. is experiencing interruptions in the supply of BD BACTEC blood culture media bottles because of recent supplier issues.
- The FDA recommends laboratories and health care providers consider conservation strategies to prioritize the use of blood culture media bottles, preserving the supply for patients at highest risk.
- Based on actions BD deployed, they expect to realize improvements in the September 2024 supply.

BD BACTEC Update • (bdbactec-update.com)

Health Alert Network (HAN) - 00512 | Disruptions in Availability of Becton Dickinson (BD) BACTEC™ Blood Culture Bottles (cdc.gov)

Disruptions in Availability of BD BACTEC Blood Culture Media Bottles - Letter to Health Care Providers | FDA

Recommendations from the FDA

In developing strategies to preserve the supply for patients at highest risk, please consider the following:

- Performing blood culture collections when medically necessary, following clinical guidelines, such as those provided below.
- Prioritizing use for patients with clinical signs and symptoms of a bloodstream infection.
- Performing routine disinfection of skin protocols prior to collection to minimize the risk of contamination of the blood culture.
- Ensuring proper blood volume collection to avoid a need to recollect additional samples.
- Utilizing safe blood collection and transfer devices to minimize the risk of damage to blood culture media bottles.
- Referring to the following guidelines for best practices for blood collection and potential considerations for prioritization for use of blood culture media bottles:
  - Guide to Utilization of the Microbiology Laboratory for Diagnosis of Infectious Diseases: 2024 Update by the Infectious Diseases Society of America (IDSA) and the American Society for Microbiology (ASM)
  - World Health Organization (WHO) guidelines on drawing blood: best practices in phlebotomy
- CDC resources:
  - Preventing Adult Blood Culture Contamination: A Quality Tool for Clinical Laboratory Professionals
  - Blood Culture Contamination: An Overview for Infection Control and Antibiotic Stewardship Programs Working with the Clinical Laboratory

Recommended Actions from BD

- Assess current inventory levels of BD BACTEC™ blood culture media in your system warehouse, laboratory, unit, and nursing stations.
- Prioritize the use of blood culture media based on clinical need and following guidelines of local oversight committees, such as the most recent update from IDSA and/or the World Health Organization as applicable to your region.
- Partner with your internal clinical teams to align on and implement a BD BACTEC™ blood culture media utilization strategy.
- Emphasize the importance of proper blood volume collection and disinfection of skin protocols with collectors to optimize recovery and minimize false positive results, respectively. (Revisit local guidelines such as CLSI)

More Useful Resources

Blood Culture Stewardship – Johns Hopkins Medicine (JHM)

Does This Patient Need Blood Cultures? A Scoping Review of Indications for Blood Cultures in Adult Nonneutropenic Inpatients | Clinical Infectious Diseases | Oxford Academic (oup.com)

Blood Culture Guidance in Non-Severely Immunocompromised Adult Inpatients- Nebraska Medicine

Adult Blood Culture Contamination Rate; A national measure and standard for clinical laboratories and antibiotic stewardship programs

Diagnostic Excellence: A New Quality Tool to Prevent Blood Culture Contamination

Diagnostic Excellence: A New Quality Tool to Prevent Blood Culture Contamination You Tube video by the CDC

Blood culture bottles remain efficient months after their expiration date: implications for low- and middle-income countries

Consensus Recommendations for Blood Culture Use in Critically Ill Children Using a Modified Delphi Approach

Infectious Diseases of Public Health Importance

Indiana Department of Health

Updated 2024-2025 COVID-19 Vaccine Recommendation

CDC recommends everyone ages 6 months and older receive an updated 2024-2025 COVID-19 vaccine when these vaccines are available later this year.

Per the CDC:

- The 2024-2025 vaccine is formulated to protect against currently circulating variants of COVID-19 and protect people from the potentially serious outcomes of COVID-19
- Vaccination continues to remain the safest and most dependable strategy to build immunity and protection against severe illness, hospitalization, and death caused by COVID-19.
- People aged 65 years and older who received 1 dose of any updated COVID-19 vaccine (Moderna, Pfizer-BioNTech or Novavax) should receive 1 additional dose of an updated COVID-19 vaccine at least 4 months after the previous updated dose.
- People aged 65 years and older who have not previously received any COVID-19 vaccine doses and choose to get Novavax should get 2 doses of updated Novavax vaccine, followed by 1 additional dose of any updated 2023–2024 COVID-19 vaccine to be up to date.

Updated 2024-2025 Flu Vaccine Recommendation

The updated 2024-2025 flu vaccine will be trivalent and will protect against an H1N1, H3N2 and a B/Victoria lineage virus. The composition of this season's vaccine compared to last has been updated with a new influenza A(H3N2) virus.

CDC recommends:

- Everyone 6 months of age and older, with rare exceptions, receive an updated 2024-2025 flu vaccine to reduce the risk of influenza and its potentially serious complications this fall and winter.
- Most people need only one dose of the flu vaccine each season.
- While CDC recommends flu vaccination as long as influenza viruses are circulating, September and October remain the best times for most people to get vaccinated.

Information for the 2024-2025 Flu Season | CDC Influenza Vaccination: A Summary for Clinicians | CDC

Updated RSV Vaccination Recommendation for Older Adults

CDC recommends a single dose for those 60 and older as detailed below:

- Everyone ages 75 and older
- People ages 60–74 who are at increased risk of severe RSV, meaning they have certain chronic medical conditions, such as lung or heart disease, or they live in nursing homes or other long-term care facilities.

The CDC recommends receiving the vaccine in late summer or early fall, before RSV usually starts to spread in the community. However, eligible adults can get an RSV vaccine at any time.

Adults who have already received a dose of RSV vaccine DO NOT need to receive another dose this year.

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Healthcare Providers: RSV Vaccination for Adults 60 Years of Age and Over | CDC

Need further evidence…

- RSVpreF vaccine (Abrysvo, Pfizer) is approved and recommended by the CDC/ACIP for administration as a single dose. See the CDC discussion, their current position is that sufficient evidence does not exist at this time to determine the need for additional doses in subsequent pregnancies.

- Reminder of CDC recs for RSV use for pregnant women:
  - RSVpreF (Abrysvo) vaccine is the only Respiratory Syncytial Virus (RSV) vaccine approved for use during pregnancy to protect infants from RSV-associated lower respiratory tract infection (LRTI).
  - The vaccine should be administered during weeks 32 through 36 of pregnancy (i.e., 32 weeks 0 days through 36 weeks 6 days).
  - In most of the continental United States, the vaccine should be administered from September through January.

RSV prevention to protect infants

Infants and young children

- To prevent severe RSV disease in infants, CDC recommends either maternal RSV vaccination (last slide) or infant administration of RSV monoclonal antibodies. Most infants will not need both.

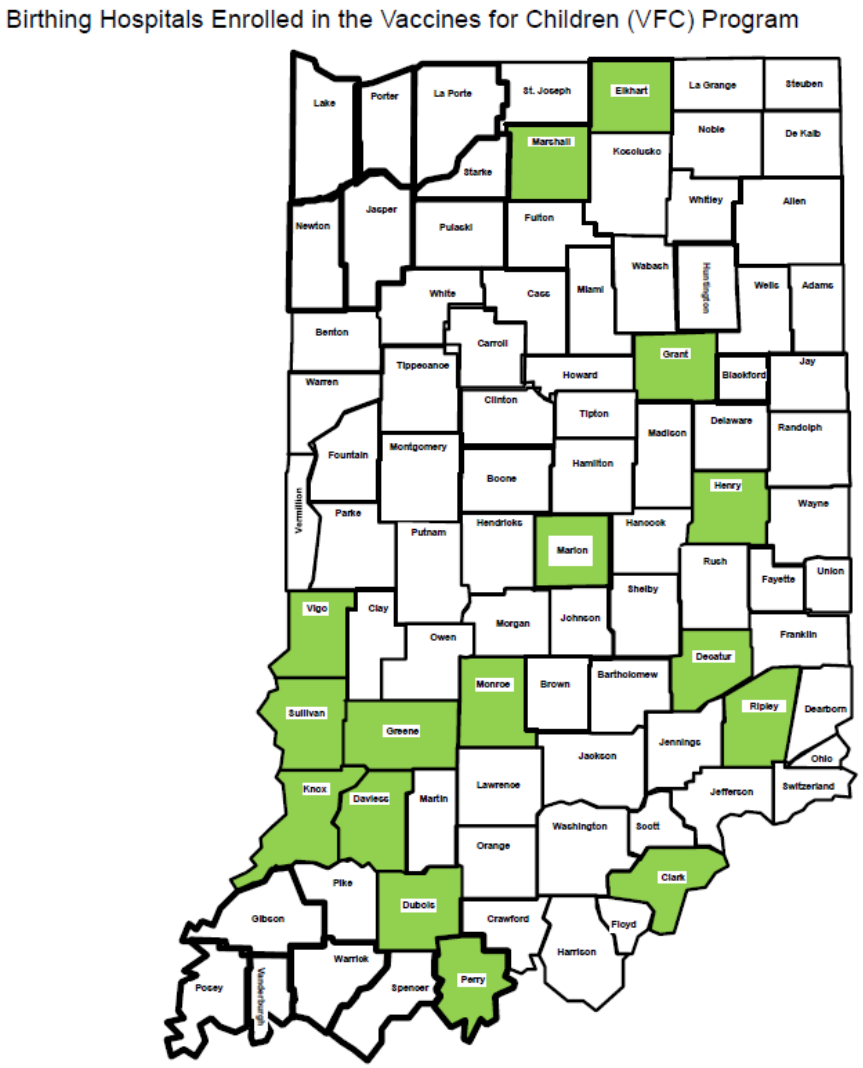
Monoclonal antibody for infants and young children

- 1 dose of the monoclonal antibody product, nirsevimab, for all infants aged 8 months and younger born during or entering their first RSV season.
- 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. Please see AAP guidelines for palivizumab.

CDC MMWR: Nirsevimab effectiveness was 90% against RSV-associated hospitalization in infants in their first RSV season. Median time from receipt of nirsevimab to symptom onset was start highlight45 days (IQR = 19–76).

Birthing Hospitals Enrolled in the VFC Program

- There are 75 birthing hospitals in Indiana
- Currently, only 17 birthing hospitals (23%) were enrolled in the Vaccines for Children (VFC) program
  - Many areas with no access to VFC vaccine
  - **Our goal is to reach 100% this year**
- All Medicaid-eligible children, including newborns, must receive vaccine from a VFC provider
- Birthing hospitals are enrolled as specialty providers
  - Only required to carry and offer RSV and HepB
- Option for a vaccine replacement model
  - Must be approved by IDOH and CDC



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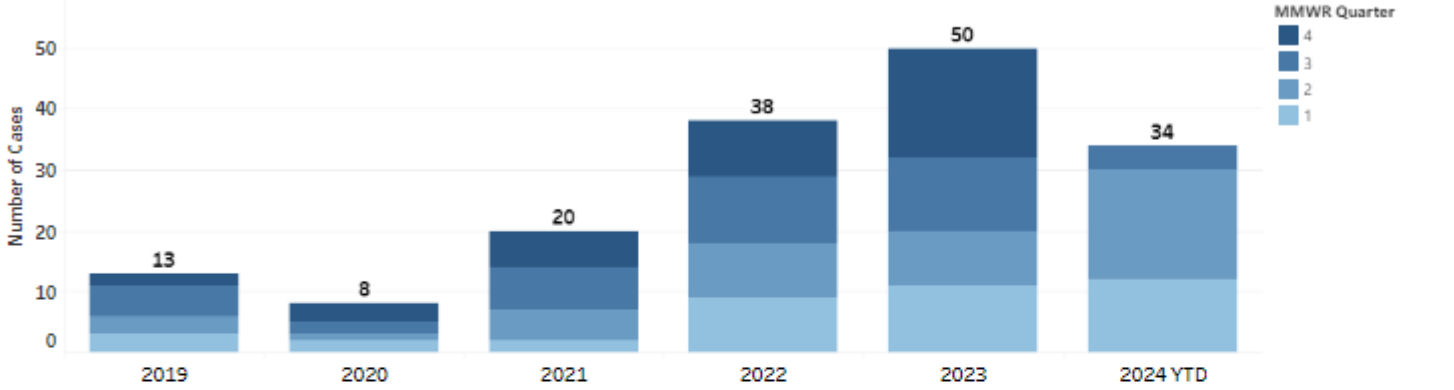
How Do I Enroll in the VFC Program?

- The Indiana Department of Health (IDOH) has streamlined the VFC enrollment process and has identified a central point of contact: Ondreya Witmer (owitmer@health.in.gov)
- **Due to COVID, all birthing hospitals are already in the VFC system and have PIN numbers eliminating the need for any new enrollment paperwork**
- IDOH has created online training and has requested approval for virtual enrollment visits to reduce the time it takes for enrollment
- Birthing hospitals will need to verify their vaccine storage unit, temperature monitoring system, medical director and primary/secondary vaccine coordinators, and delivery times
- Vaccine replacement model – need to plan for 4-6 weeks for approval
- Start the process now!

Syphilis update

Congenital Syphilis Cases by Year & Quarter in Indiana

Annual and quarterly congenital syphilis case counts are based on year of birth (or stillbirth).

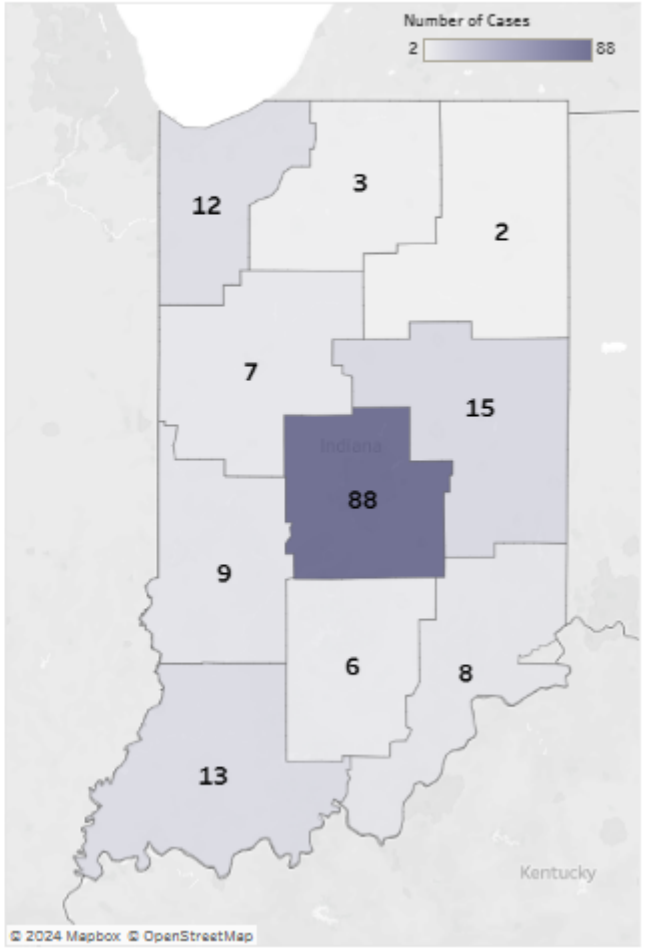


Congenital Syphilis Cases by Public Health Districts in Indiana

Annual and quarterly congenital syphilis case counts are based on year of birth (or stillbirth). District is based on mother's residence at birth.

	2019				2020				2021				2022				2023				2024 YTD			Five-Year Total	2024 YTD		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3		1	2	3
District 1		1		1	1					1			1	1				2		3		1		12		1	
District 2									1								1				1			3	1		
District 3															1		1							2			
District 4										1	1						1	1			1	1	1	7	1	1	1
District 5			2	1	1	1		1	1	1	6	2	6	4	6	6	6	5	8	10	7	12	2	88	7	12	2
District 6			1				2	1		1		3	1	2		3				1				15			
District 7			1					1						2	2				1		1	1		9	1	1	
District 8	1																1		1	2	1			6	1		
District 9	1	2								1		1							2			1		8		1	
District 10	1		1										1		2		1	1		2	1	2	1	13	1	2	1

Congenital Syphilis Case Five-Year Totals by Public Health Districts, 2019-2023



Indiana Department of Health

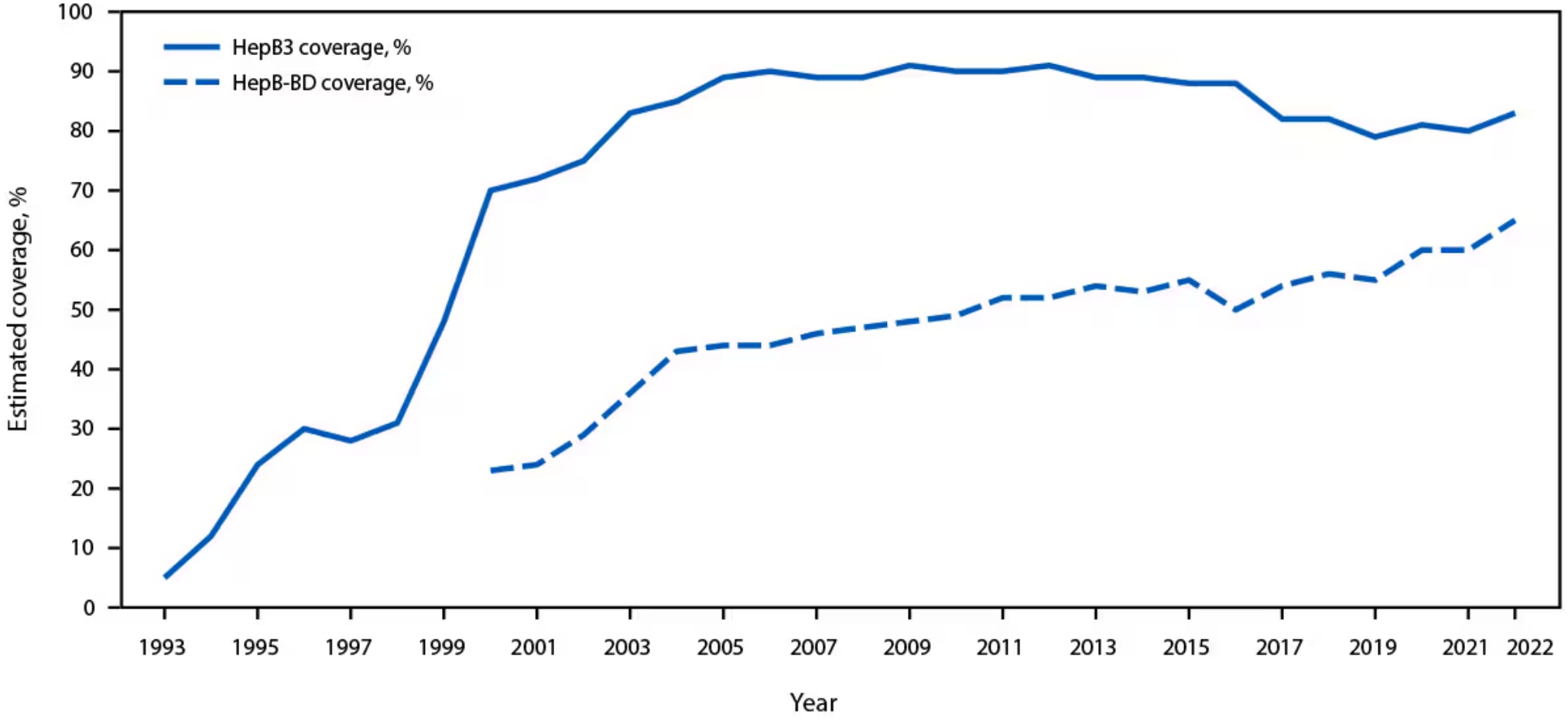
https://www.in.gov/health/audiences/clinicians/clinical-guidelines-and-references/congenital-syphilis-clinician-toolkit/

Respiratory Viral Panel as an Early Diagnostic Tool for Neonatal Enterovirus Infection — San Diego, California 2023

- Enterovirus infections can cause severe disease in neonates.
- In 2023, a cluster of neonatal enterovirus infections initially suspected to be echovirus 11, but subsequently identified as Coxsackie B4 and B5 infections, occurred in San Diego, California.
- Respiratory panel polymerase chain reaction (PCR) testing for rhinovirus-enterovirus facilitated diagnosis of enterovirus infection in these infants.

Notes from the Field: Respiratory Viral Panel as an Early Diagnostic Tool for Neonatal Enterovirus Infection — San Diego, California 2023 | MMWR (cdc.gov)

Progress Toward Hepatitis B Elimination



Department of Health

[Progress Toward Elimination of Mother-to-Child Transmission of Hepatitis B Virus — Region of the Americas, 2012–2022 | MMWR (cdc.gov)]

Progress Toward Hepatitis B Elimination

- In 2022, 5 million persons in the World Health Organization Region of the Americas (AMR) had chronic hepatitis B virus (HBV) infection, the leading cause of hepatocellular carcinoma and cirrhosis.
- Most chronic infections are acquired through mother-to-child transmission (MTCT) or horizontal transmission during childhood and are preventable with hepatitis B vaccination, including a birth dose (HepB-BD), followed by 2–3 additional doses (HepB3) in infancy.
- All 51 AMR countries provide HepB3; 67% also provide HepB-BD.
- Mathematical models suggest that hepatitis B prevalence among children has met the global and regional impact target of ≤0.1% in 14 countries and regionally.
- HepB3 coverage decreased by ≥10 percentage points in 2022 compared with 2012 in 15 countries; 17 countries do not yet provide HepB-BD.

Progress Toward Elimination of Mother-to-Child Transmission of Hepatitis B Virus — Region of the Americas, 2012–2022 | MMWR (cdc.gov)

Useful Resources

Indiana Department of Health

Antimicrobial resistance threats in the United States, 2021-2022

AR Threats

	Threat	Change in Rates or Number of Infections***			
		2020 vs. 2019	2021 vs. 2020	2022 vs. 2021	2022 vs. 2019
URGENT*	Hospital-onset CRE	▲ Increase	▲ Increase	— Stable	▲ Increase
URGENT*	Hospital-onset Carbapenem-resistant *Acinetobacter*	— Stable	— Stable	— Stable	▲ Increase**
URGENT*	Clinical Cases of *C. auris*	▲ Increase	▲ Increase	▲ Increase	▲ Increase
SERIOUS*	Hospital-onset MRSA	▲ Increase	— Stable	▼ Decrease	— Stable
SERIOUS*	Hospital-onset VRE	▲ Increase	▲ Increase	— Stable	▲ Increase
SERIOUS*	Hospital-onset ESBL-producing Enterobacterales	▲ Increase	— Stable	— Stable	▲ Increase
SERIOUS*	Hospital-onset MDR *Pseudomonas aeruginosa*	▲ Increase	▲ Increase	— Stable	▲ Increase

* Threat level for each pathogen, as categorized in CDC's Antibiotic Resistance Threats in the United States, 2019.

Indiana Department of Health

AR Threats Report 2024 (cdc.gov)

ARS Stewardship Program

ARS Stewardship Program

The ARS Stewardship Program includes a comprehensive assessment, in-depth training and education for the clinical pharmacists, physician engagement, online support and education, and program results reporting and benchmarking. Education includes prescribers, nursing, pharmacy, quality and infection control.

ARS Resources

ARS provides access to critical resources including media, case studies, and publications on both the provider and community level. ARS recognizes the need to deliver results and updated information in order to have a greater impact on antibiotic resistance and improve patient care.

Contact Us

For nearly 20 years, the ARS program has a proven track record in reducing antimicrobial resistance and achieving substantial cost reductions. Contact the ARS team about conducting a free comprehensive assessment for your organization.

Training and Education

- Overview of Antimicrobial Stewardship
- Antimicrobial Resistance
- Antibiogram and Resistance Patterns
- Renal Function Assessment for Antimicrobial Dosing
- Vancomycin Pharmacy Dosing Service
- Optimizing Pharmacokinetic/ Pharmacodynamics to Prevent Antimicrobial Resistance
- Antimicrobial Spectrum of Activity

Contact information:
Christian Cheatham, Pharm.D., BCIDP
Clinical Pharmacy Specialist, Infectious Diseases
317.501.0586 (cell)
ccheatham@rxstewardship.com

Disease States:

- Pneumonia
- Urinary Tract Infections
- Skin and Soft Tissue Infections & Osteomyelitis
- Intra-abdominal Infections
- Bloodstream Infections
- C. difficile Infections, Prevention, and Treatment

Therapeutic Drug Monitoring:

- Renal Function Assessment for Antimicrobial Dosing
- Vancomycin Pharmacy Dosing Service
- Aminoglycosides: Optimizing Efficacy & Minimizing Toxicity

ARS Stewardship Program

URINARY TRACT INFECTIONS (UTIs)

THE PROBLEM

Indiana is experiencing rising rates of ESBL-producing organisms.

	Acute Care	LTC
Escherichia coli	7-19%	10-44%
Klebsiella pneumoniae	5-11%	7-41%
Proteus mirabilis	2-7%	2-20%

Source: 2021-23 antimicrobial resistance data provided by select IN healthcare hospital systems and facilities.
*Specific outpatient data for Indiana is unknown.

SOLUTIONS

Decision to Treat

- Empiric treatment should only be considered if symptoms of UTI are present in association with pyuria.
- Do not treat asymptomatic bacteriuria unless pregnant female or undergoing urologic procedures.
- Lacking symptoms, pyuria and/or positive urine cultures do not necessitate treatment.

Obtain facility specific antibiogram to understand local susceptibility patterns:

- Assess antibiogram for *E. coli, Klebsiella pneumoniae/oxytoca, Proteus mirabilis* to understand ESBL rates.
- If Intermediate susceptibility or resistance to any 3rd generation cephalosporin or aztreonam suspect an ESBL.

Drivers of ESBL producing organisms:

- Routine and repeated use of 3rd generation cephalosporins and fluoroquinolones.
- Alternatives not associated with increased incidence of ESBLs, include PCNs, aminoglycosides, and narrow spectrum cephalosporins. Consider modification of empiric treatment guidelines to emphasize these antimicrobial classes.

Consider antibiotic treatment based on patient, risk, care setting, local resistance, and likely pathogens:

- Assess if patient has recent history (last 12 months) of ESBL or multiple courses of 3rd generation cephalosporins, fluoroquinolones, aztreonam.
- **Possible empiric treatment alternatives for UTI at risk of ESBL**: nitrofurantoin, aminoglycosides, TMP/SMX, Fosfomycin (most reliable for *E.coli).*
- **ESBL Identified by culture**: avoid penicillins and cephalosporins even if reported as susceptible to reduce treatment failures.
- May consider the following in ESBL positive infections, if these antibiotics are reported susceptible: **IV therapy: aminoglycoside or carbapenem: Oral therapy: TMP/SMX or fosfomycin (*E.coli).***
- Determine cumulative urine susceptibilities to understand most active local antibiotic regimens to treat UTI avoiding antibiotics that drive ESBL production.

Other Public Health Updates

Indiana Department of Health

Childhood Lead Exposure Linked to Apple Cinnamon Fruit Puree Pouches — North Carolina, June 2023–January 2024

- In North Carolina, investigations are performed to identify potential exposure sources for children with blood lead levels (BLLs) ≥5 µg/dL.

- During June–August 2023, routine testing identified four children in three unrelated North Carolina homes with BLLs ≥5 µg/dL.
  - Investigations identified WanaBana Apple Cinnamon Fruit Puree pouches as the likely exposure source.
  - A collaborative multilevel response led to detection of approximately **500 cases** of childhood lead exposure potentially linked to consumption of apple cinnamon purees nationwide.
  - Voluntary recall of the implicated products prevented additional exposures.

Lead Testing in Indiana

In 2023, **35.4%** of children younger than 3 years old and **19.1%** of children younger than 7 years old were tested at least once. You can help minimize the health risks caused by lead through improved testing and reporting.

Indiana statute changed effective on Jan. 1, 2023, (HEA 1313 and 410 IAC 29-3-1) and requires:

- All children younger than 7 be tested for lead, and if not, to offer this testing to the parent or guardian of that child
- Children should be lead tested between nine and 15 months of age (1-year checkup, for example), and again between 21 and 27 months (such as 2-year checkup), or as close as reasonably possible
- All blood lead tests, regardless of results, are required to be reported to IDOH no later than one week after completion. This requirement applies to both the provider and the laboratory, clinic, etc. responsible for the analysis of the specimen.

Lead Reporting in Indiana

- Report blood lead test results into Children and Hoosier Immunization Registry Program (CHIRP), or through the electronic gateway portal Lead Data Flow (LDF) or HL7 messaging.
- Utilize EMR prompts as testing reminders whenever possible. Entering results exclusively into an EMR will not guarantee that they are being reported into CHIRP and to IDOH.
- Visit the IDOH Lead and Healthy Homes Website or call 317-233-1296 for reporting information and instructions, and other helpful information.
- Click the Healthcare Providers section of the IDOH Lead and Healthy Homes Division webpage for other resources.

Please consider completing the provider survey about lead testing

Tularemia in wild rabbits

- The Indiana Department of Natural Resources (DNR) has confirmed cases of tularemia in wild rabbits in Tippecanoe County. Since April, more than 20 rabbits have been found dead in this area.
- Tularemia is an infection that can affect wildlife, domestic animals, and humans. It is typically transmitted through tick or deerfly bites, direct contact with infected animals, or by exposure to contaminated water. Rabbits and rodents are most affected by this disease.
- **Currently this situation is limited to local animals in the identified area with no spillover and is consider low risk for humans.** Infections in humans are not contagious and most infections can be treated with antibiotics. For more info, see the CDC link below.

https://www.cdc.gov/tularemia/site.html#hcp

Diamond Shruumz-brand Products Were Recalled

- All flavors of Diamond Shruumz-brand products have been recalled including Microdosing Chocolate Bars, Infused Cones and Micro-Dose and Mega-Dose/Extreme Gummies

- As of July 22, 2024, a total of 74 illnesses have been reported from 28 states. Sixty-two (62) of the 74 people have reported seeking medical care, 38 have been hospitalized, and there are two potentially associated deaths under investigation.
  - 6 patients in IN

Investigation of Illnesses: Diamond Shruumz-Brand Chocolate Bars, Cones, & Gummies (June 2024) | FDA

Suspected Counterfeit Pills

- Counterfeit prescription pill (counterfeit pill) availability has sharply increased in the United States and has increasingly been linked to overdose deaths. Counterfeit M-30 oxycodone (counterfeit M-30) accounts for the majority of counterfeit pills.

- Patients aged 15–34 years accounted for approximately two thirds of 143 suspected exposures to counterfeit pills containing fentanyl evaluated at a U.S. hospital.
  - The majority of patients with exposures were hospitalized, 69% of whom were admitted to an intensive care unit.
  - Substances in addition to fentanyl were detected in approximately 90% of exposures.

Suspected Counterfeit M-30 Oxycodone Pill Exposures and Acute Withdrawals Reported from a Single Hospital — Toxicology Investigators Consortium Core Registry, U.S. Census Bureau Western Region, 2017–2022 | MMWR (cdc.gov)

Xylazine

- Xylazine, a nonopioid sedative, has been increasingly detected in illegally manufactured fentanyl (IMF) and IMF-involved U.S. overdose deaths; most xylazine-involved overdose deaths involve IMF.
- Among adults evaluated for substance use treatment and reporting past–30-day IMF or heroin use or IMF or heroin as their primary lifetime substance use problem,
  - those also reporting xylazine use reported more past nonfatal overdoses, and
  - higher percentages of persons who reported xylazine use reported other recent substance use and polysubstance use than did persons who did not report xylazine use.
- Provision of nonjudgmental care and services and linkage to and retention in effective substance use treatment might reduce harms, including overdose among persons reporting xylazine use.

Indiana Department of Health

Reported Xylazine Use Among Adults Aged ≥18 Years Evaluated for Substance Use Treatment — United States, July 2022–September 2023 | MMWR (cdc.gov)

Opioid Use Disorder

In 2022, among the 4% of U.S. adults who needed OUD treatment, only 25% received recommended medications.

A larger percentage (30%) received treatment without medications. Higher percentages of White than Black or African American or Hispanic or Latino adults received any treatment.

Higher percentages of men than women and of adults aged 35–49 years than other adults received medications.

Indiana Department of Health

[Treatment for Opioid Use Disorder: Population Estimates — United States, 2022 | MMWR (cdc.gov)]

Next Level Recovery Indiana

FACT ONE
Addiction is a Disease

Substance use disorder, commonly known as addiction, is a disease impacting thousands of Hoosiers. Addiction isn't a behavior problem. It's a chronic disorder that changes the brain and body.

Learn more about

THE DISEASE

FACT TWO
Treatment is Available

Substance use disorder can be treated. Treatment takes time but there are many highly effective options available, from medication-assisted treatment to 12-step programs.

Explore options for

TREATMENT

FACT THREE
Recovery is Possible

Recovery requires a lifelong commitment and looks different for everyone. Standing by a loved one as they fight substance use disorder can be challenging, but you can help them in their recovery when you see the person, not just their addiction.

Find hope for

RECOVERY

Indiana Department of Health

NextLevel Recovery: Know The Facts (in.gov)

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 svuppalanchi@health.in.gov or Gcrowder@health.in.gov
- Sign up for IHAN– Indiana Health Alert Network https://ihan-in.org
- MARK YOUR CALENDARS - Clinician webinars for 2024: Aug. 23, Sept. 27, Oct. 25, Nov. 22, Dec. 27

Questions?

CONTACTS:

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Shireesha Vuppalanchi, M.D.
Medical Director
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Next call: Noon, Aug 23

For more information

The supplemental information section covers other topics to refer to on your own:

- Ice cream product recall due to potential contamination with Listeria
- Progress Toward Achieving and Sustaining Maternal and Neonatal Tetanus Elimination — Worldwide, 2000–2022
- Illnesses After Administration of Presumed Counterfeit Botulinum Toxin in Nonmedical Settings

Supplemental information

Indiana Department of Health

Recalls

Totally Cool, Inc. of Owings Mills, Maryland is recalling multiple brands of ice cream products, because they have the potential to be contaminated with Listeria monocytogenes. No illnesses have been reported to date. Totally Cool, Inc., Recalls All Ice Cream Products Because of Possible Health Risk | FDA

Progress on Maternal and Neonatal Tetanus Elimination

- Tetanus causes considerable mortality among under vaccinated mothers and their infants following unhygienic deliveries, especially in low-income countries. The maternal and neonatal tetanus elimination initiative targets 59 priority countries.
- During 2000–2022, 47 priority countries achieved maternal and neonatal tetanus elimination, contributing to global declines in neonatal tetanus cases (89%) and neonatal tetanus deaths (84%). Despite progress, the global disruption of routine immunization caused by the COVID-19 pandemic impeded elimination progress. Since 2020, reported neonatal tetanus cases have increased in 18 (31%) priority countries. Progress Toward Achieving and Sustaining Maternal and Neonatal Tetanus Elimination — Worldwide, 2000–2022 | MMWR (cdc.gov)

Notes from the Field: Illnesses After Administration of Presumed Counterfeit Botulinum Toxin in Nonmedical Settings — Tennessee and New York City, March 2024

- During March 2024, seven women experienced illness after receiving botulinum toxin injections in nonmedical settings; four were hospitalized. At least four patients had received counterfeit product.
- NYC DOHMH identified three patients, and TDH identified four (including one Kentucky resident who was admitted to a Tennessee hospital). All patients were women, aged 26–55 years (median age = 48 years). Reported signs and symptoms included ptosis, dry mouth, dysphagia, shortness of breath, and weakness with onset during February 23–March 7, 2024.
- All patients sought health care for their illness; four were hospitalized, and two were monitored in intensive care units. None required intubation.
- CDC's Botulism Consultation Service determined that botulinum antitoxin was not indicated for any of the seven patients.
- All patients reported receiving cosmetic BoNT injections in nonmedical settings a median of 3 days (range = 2–20 days) before symptom onset. Serum and stool specimens collected from two patients approximately 3 weeks after symptom onset tested negative for BoNT, likely because of the interval between symptom onset and specimen collection.

Notes from the Field: Illnesses After Administration of Presumed Counterfeit Botulinum Toxin in Nonmedical Settings — Tennessee and New York City, March 2024 | MMWR (cdc.gov)