

CLINICIAN UPDATES

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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 participating in this webinar.

June 2024 Clinician Update

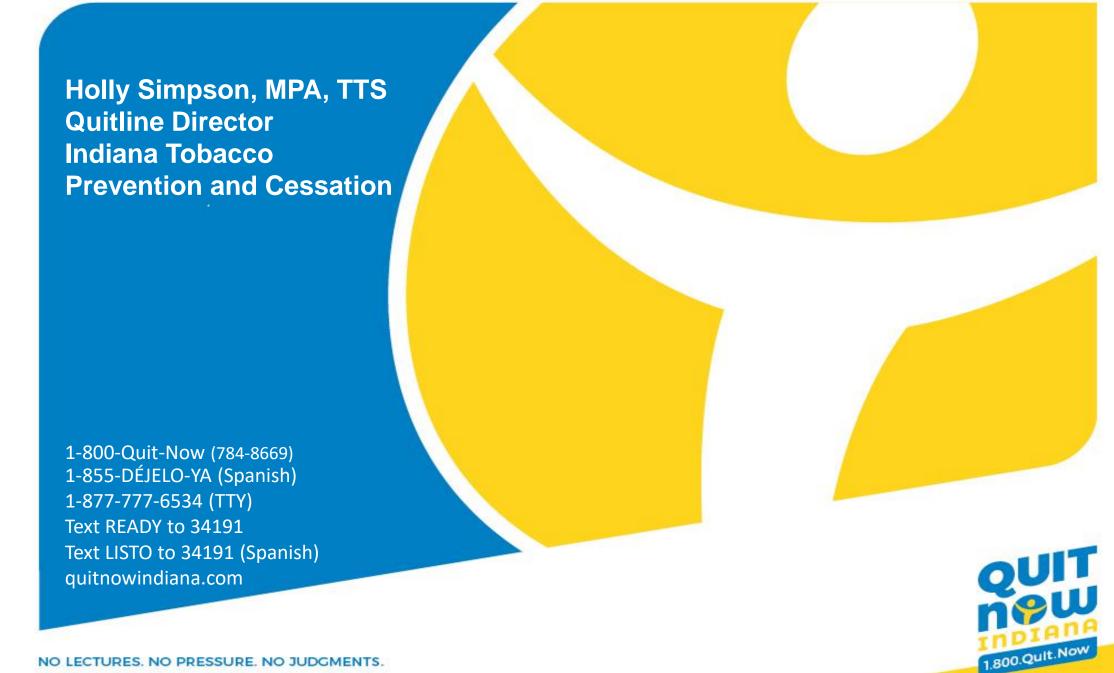


Smoking During Perinatal Period

- In 2021, among women with a recent live birth,
 - 12.1% reported smoking before pregnancy,
 - 5.4% reported smoking during pregnancy, and
 - 7.2% reported smoking during the postpartum period.
- Smoking behaviors varied by demographic characteristics and jurisdiction.
- Overall, 73.7% of women reported being asked about smoking by a health care provider at any health care visit before pregnancy. That rate jumps to 93.7% at any prenatal visit, and down to 57.3% at a postpartum checkup.







NO LECTURES, NO PRESSURE, NO JUDGMENTS. JUST FREE HELP.

CDC TOP 3 Best Practices for Cessation Interventions

Promoting
Health System
Change

Ensuring insurance coverage and utilization of proven cessation treatments

Supporting
State Quitline
Capacity



Provider Impact

70%

of persons using tobacco

want to end nicotine dependence.

30%

of persons using tobacco

were not advised to quit by their medical provider.



NO LECTURES. NO PRESSURE. NO JUDGMENTS.

JUST FREE HELP.

Intervening with Persons Who Use Commercial Tobacco Products







The Frontline Tool for Helping Hoosiers End Nicotine Dependence

Vision

QNI is working to reduce the use of all commercial tobacco products in Indiana. The network of service programs is available to improve the health of Hoosiers and end exposure to tobacco and addiction.



Quit Now Indiana Services Overview



Individualized Coaching

Members chat with a coach 1 on 1 over the **phone**, **online**, or by **text** for support. Coaches are available 24/7* and will help members design a personalized **Quit Plan**.



Nicotine Replacement Therapy

Fast delivery of patches, gum, or lozenges for eligible members while supplies last



Online Support

Members have access to a quit guide, online tips, tricks, tools, and group coaching to help them succeed.



Member Journey



Enrollment

- Phone
- Web
- Text
- Referral



Quit

- Relapse prevention tools
- Ongoing access to dashboard
- Reenrollment and reengagement campaigns



Program Stratification

- Youth
- Pregnancy
- Behavioral Health
- Menthol Enhancement
- Quit For Life



Intake Data Collection

- NAQC MDS questions are recommended
- Data collected is reported out to state



Ongoing Milestones

- Additional sessions with coaches
- Ongoing milestones and action steps
- Central dashboard with clear program details



Coach Session

- Coaches focus on active listening, empathy, and evidence-based treatment information
- Phone, chat, text, or group video





Quit Now Indiana Standard & Tailored Program Offerings

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Program (self-report)	Sessions	NRT	Offering	Amount (subject to change)
Pregnancy	7	Yes*	Patch, Gum, Lozenge, or Combo	12 weeks (4x4x4)
Behavioral Health	7	Yes	P, G, L, or Combo	12 weeks (4x4x4)
Youth (Online)	6 Steps	No	N/A	N/A
Menthol Enhancement	5 or 7	Yes	P, G, L, or Combo	12 weeks (4x4x4)
Standard Adult	5	Yes	P, G, or Combo	2 weeks





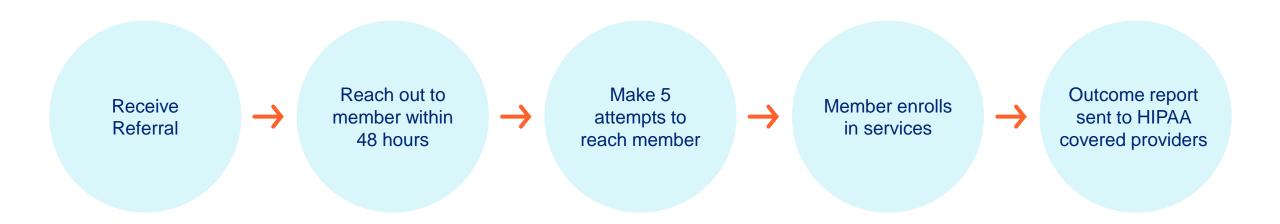
Referral Options

Method	Implementation time (estimate)	Benefits	Considerations
Fax referral	Immediate	 Straightforward, minimal training needed Outcome reports returned by fax or email No implementation cost 	 Requires a fax machine or e-fax capabilities Paper records retention Printing costs
Online Referral Portal	Immediate	 No implementation cost Straightforward, minimal training needed Can refer via computer or smartphone 	Outcome reports returned by fax or email, not online
Flat File via SFTP	45-60 days	 Does not require HL7 knowledge to implement SFTP connection is simpler to setup 	No real-time data exchange; outcome reports are sent on a weekly basis
Full EHR integration	15-60 days	 HL7* has a set of international standards used across the health industry HL7v2 and HL7v3 is a format broadly supported in most known EHR systems (EPIC, eCW, AthenaHealth, etc.) *Health Level 7 	 Implementation costs for health systems Requires IT and/or EHR vendor involvement





Provider Referral Progression



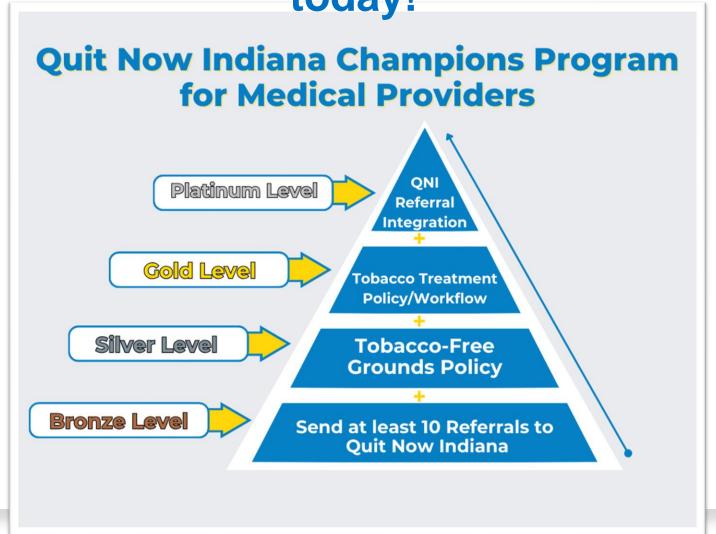
Outbound attempts

Outbound calls are made within 48 hours of receiving referral

Five attempts are made during the member's selected best time

1.800.QUITNOW will show on most cellphone carrier caller id's*

Become a Quit Now Indiana Champion today!



Digital Badge



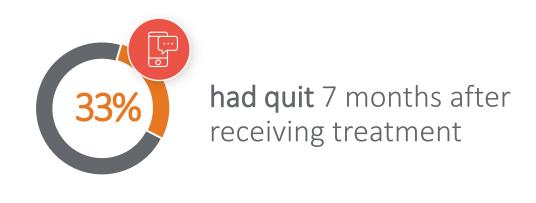
Window Cling



Quit Now Indiana

Quit Rate and Satisfaction

Research shows that only 4–7% of people who use tobacco who try to quit smoking on their own are successful.





Behavioral Health Program - 32% quit rate & 84% satisfaction rate **Pregnancy Program -** 63.5% quit rate & 79% satisfaction rate

Free QNI Materials - QuitNowIndiana.com

FDA-APPROVED PHARMACOTHERAPY FOR SMOKING CESSATIO

PRODUCT	NICOTINE PATCH	MICOTINE	MICOTINE LOZENCE	NASAL SPRAY	BUPROPION SR TABLET	VARENICUME TABLET
BRAND NAMES	NicoCerm CQ.* Hableol.*Cerenic	Nicoreme.* Generic	Nicotoxid* Lesange (classic coaled minit Ceneric	NEORES* NS	Generic	Chanek* Cenark
AVAILABILITY	orc	otc	orc	Dix	Re	0x
PRODUCT STRENGTHS	21 mg 14 mg 7 mg	2 mg (1s: cigarets > 50 mins after waking) 4 mg (1s: cigarets c 50 min after waking)	2 mg (Its cigarelis > 10 mins after waking) 4 mg (Its cigarelis = 10 min after waking)	10 mg/mi	150 mg	65 mg and 1 mg
BNTTAL BOSING	1 paech/04 hours	1 place/1 or 2 hours: minimum Shiay	1 keengs/ 1 or 2 houts minimum 9/day	1-2 doses/hour (1 dose + 2 sprays or 1 per noorth minimum 6 doses/day	150 mg once dally idays 1 35 ellen 150 mg reiks dally, as lease & hours spire	0.5 mg once daily (days 1-3): 0.5 mg swice daily (days 4-7) shon 1 mg swice daily
MAXINUM DOSING	Same as above	24 pleasy 24 hours	S leasings; 6 hours or 20 lithenges; day	5 doses/hour or 40 doses/day	150 mg swice daily	1 mg wice daily
TIME TO PEAK PLASMA CONCENTRATION	3-12 hours	30 minuses	30 minuses	11-15 minuses	I hours 6 hours for acute merabolisa	5-4 hours
PECOMMENDED TDEADMENT DURATION	8-10 weeks (2-6 weeks per dose level depending on sometization)	Up to 12 weeks	Up to 12 weeks	3-6 months	7-12 weeks this special clicumosances, may take for up to 6 membral	12 weeks ian additional 12 weeks can be prescribed for patients who have successfully seeps smeking at the and of 12 weeks!
ADVERSE ERSECTS	Local sión reaccion fociosis sina and uso secold cosm or sy a diferent brandi. Ne adache, siese desurbances sincomina, abnormala. Vid direams!	Mouth soreness. Necups, dyspeptia, mid, standone jaw ache icorrect sechnique)	Headaches, Historial, nausea V systemad or chained contact sochalque!	total random mkadon in nose show and oyes sypically restrict shough regular uset threat waring shoughing	Chy mouth, insomnia gobit bachime use or minimas incomnia, shakiness, skin rash, consepasion, sebure skin & 0.1%, neuropsychiamic sympetris (see precaselons, below)	Nausea recomnia, consepasion, abnormal discarre, nouncepsychia in symptomic basis procausions, below)
PRECAUTIONS, CONTEA BENCATIONS AND WARRINGS	PRECAUTIONS Designancy and pregnancy and pregnancy and pregnancy and information of the underlying underlying underlying preceding serious preceding serious preceding acquia preceding acquire preceding acquir	PRECAUTIONS: Pregnancy and Pregnancy and pregnancy and pregnancy and pregnancy processing proce	PRECAUTIONS: Programy and Programy and Bossneeding Bos	PRECAUTIONS: Programmy and behaviousiding 2-week pote myocardia inferiors, sarings antipolitical, sarings antipolitical, sarings occured, solid sacches pregio decores, solid debase, addidiones «18 years	PRIECALITICINS Programmy and provisional configurations of Salaman Property Children Salaman Report Children Salaman Report Children Salaman Report Neitherininthampropion, oursain or proteining or anneatis new year, And Inhibition of Salaman Report Salaman S	PEECAUTIONS: Fregrancy and braissteeling awer tensi imputifiers, adjustments, adjustments, (16 year) Warning, Se balon for FDA warning*
DAILY COST**	\$1.52.53.49 IT paicht	\$1.90-\$5.46 (9 pieces)	\$1.99.54.20 (9.pacos)	\$10.15 (6 dicses)	\$0.72 (2 tables)	\$17.72 (Charato \$15.02 (Ceneric) (2 sables)
BETRUCTIONS FOR USE	Apply I pasch so healthy clean, dry nearest site out? is upper arm or his demose and replace city Scarce pasch site.	Chew gam slowly unel you motice a peoplery use of a sight window of a sight elegis. Then polit benkern your cheek and gam When uses and gam When uses and gam with the cheek and gam of your mouth begale unel a long of your mouth begale cheekstark unel engle does not resurt, demartally 30 mituses.	Allow lossings to district Soviety without district Soviety without district Country or supplied to the country of supplied to the country of	Blow nose His to not clear. The to not clear. The head back stightly itself to consider the control of the cont	Sum using bupropion one to two seeks better qualing soluting soluting solution out a face a face 6 mount between doctor.	Stam using standarding standarding con- standarding con- standarding con- traction of the photocological standarding and sub- al fall gloss of wears.

PRINT MATERIALS TO ORDER

PALM CARDS (ENGLISH)

1.800.Quit.Now 1-800-784-8669



It's Never Too Late to Quit.











Tobacco Addiction.

No Lectures. No Pressure. No Judgments. Just Free Help.







Patient will receive an override letter from RVO Health to provide to the medical practitioner for signature and submission back to RVO Health for authorization of the NRT.

Indicate authorization on the QNI Fax Referral Form by checking the box and signing the Pre-Authorization Section located at the center of the form.

Indicate authorization on the Online Portal by checking the box in the Pre-Authorization Section located at the bottom of the online form.

For more information. visit quitnowindiana.com or call 317-234-1787.

HOW TO

AUTHORIZE NRT

DURING PREGNANCY



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Questions?



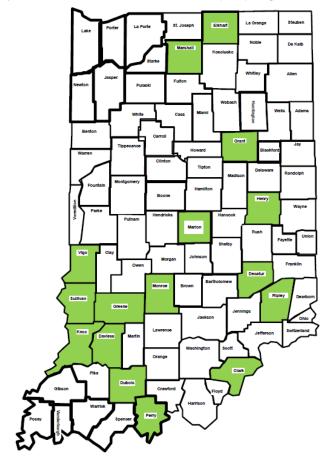
Birthing Hospitals – VFC Program



Birthing Hospitals Enrolled in the VFC Program

- There are 75 birthing hospitals in Indiana
- Currently only 17 birthing hospitals (23%) are 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

Birthing Hospitals Enrolled in the Vaccines for Children (VFC) Program





September 202

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 is the contact person for enrolling birthing hospitals. Please email her at owitmer@health.in.gov if you would like to start the process.
- 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 on-line 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!



Questions?

CONTACT:
David McCormick

DMcCormick@health.in.gov







Be Antibiotics Aware and C. diff Resources from the CDC

Viruses or Bacteria What's got you sick?

Antibiotics are often prescribed when they are not needed for respiratory infections Antibiotics are only needed for treating certain infections caused by bacteria. Viral illnesses cannot be treated with antibiotics. When an antibiotic is not prescribed, ask your healthcare professional for tips on how to relieve symptoms.

Common Respiratory	Common Cause			Are
Infections	Virus	Virus or Bacteria	Bacteria	Antibiotics Needed?*
Common cold/runny nose	~			No
Sore throat (except strep)	~			No
COVID-19	~			No
Flu	~			No
Bronchitis/chest cold (in otherwise healthy children and adults)		~		No**
Middle ear infection		~		Maybe
Sinus infection		~		Maybe
Strep throat			~	Yes
Whooping cough			~	Yes
"Antiviral drugs are available for some viral infections, such as COVID-19 or flu. ""Studies show that in otherwise healthy children and adults, antibiotics for bronchitis won't help patients feel better.				



To learn more about antibiotic prescribing and use, visit www.cdc.gov/antibiotic-use.



ANTIBIOTICS AREN'T ALWAYS THE ANSWER.



Antibiotics save lives. Improving the way healthcare professionals prescribe antibiotics, and the way we antibiotic resistance, and ensures that these life-saving drugs will be available for future generations



The Facts:

When a nationt needs antibiotics, the henefits outweigh the risks of side effects or antibiotic

When antibiotics aren't needed, they won't help you, and the side effects could still hurt you.

Common side effects of antibiotics can include rash, dizziness, nausea, diarrhea, or yeast infections. More serious side effects include Clostridioides difficile infection (also called C. difficile or C. diff), which causes diarrhea that can lead to severe colon damage and death People can also have severe and life-threatening

Antibiotics do not work on viruses, such as colds and flu, or runny noses, even if the mucus is thick, vellow, or green.

Antibiotics are only needed for treating certain infections caused by bacteria. Antibiotics also won't help for some common bacterial infections including most cases of bronchitis, many sinus infections, and some ear infections.

Taking antibiotics creates resistant

bacteria no longer respond to the drugs designed to kill them.

More than 2.8 million antibiotic-resistan infections occur in the United States each year. and more than 35,000 people die as a result.

If you need antibiotics, take them exactly as prescribed. Talk with your doctor if you have any questions about your antibiotics, or if you develop any side effects, especially diarrhea, since that could be a C. difficile (C. diff) infection which needs to be treated.

Reactions from antibiotics cause 1 out of 5 medication-related visits to the emergency department. In children, reactions from antibiotics are the most common cause of medication-related emergency department visits.

IMPROVING ANTIBIOTIC USE



Do I really need antibiotics?



SAY YES TO ANTIBIOTICS when needed for certain infections caused by bacteria.

SAY NO TO ANTIBIOTICS



for VITUSES, such as colds and flu, or runny noses even if the mucus is thick vellow or green. Antibiotics also won't help for some common bacterial infections including most cases of bronchitis, many sinus infections, and some ear infections



Do antibiotics have side effects?

Any time antibiotics are used, they can cause side effects. However, antibiotics can save lives. When you need antibiotics, the benefits outweigh the risks of side effects. If you don't need antibiotics, you shouldn't take them because they can cause harm.

Common side effects of antibiotics include:











Get immediate medical help if you experience severe diarrhea. I could be a symptom of a C. difficile infection (also called C. diff) which can lead to severe colon damage and death. People can also have severe and life-threatening allergic reactions.

If you experience side effects, follow up with your healthcare professional.





Heat Related Illnesses

- Health effects | HHS.gov
- Climate and Health Outlook Portal (arcgis.com)
- Heat & Health Tracker | Tracking | NCEH | CDC
- Heat-Related EMS Activation Surveillance Dashboard NEMSIS







Public Health Importance

Doxy PEP for STI Prevention

- In three large randomized controlled trials, 200 mg of doxycycline taken within 72 hours after sex has been shown to reduce syphilis and chlamydia infections by >70% and gonococcal infections by approximately 50%.
- The recommended dose of doxy PEP is 200 mg and should not exceed a maximum dose of 200 mg every 24 hours.



Recommendations from the CDC

- Men who have sex with men (MSM) and transgender women (TGW) who have had a bacterial STI
 (specifically syphilis, chlamydia, or gonorrhea) diagnosed in the past 12 months should receive
 counseling that doxy PEP can be used as postexposure prophylaxis to prevent these infections.
- Following shared decision-making with their provider, offer persons in this group a prescription for doxy PEP to be self-administered within 72 hours after having oral, vaginal, or anal sex.
- Doxy PEP, when offered, should be implemented in the context of a comprehensive sexual health approach, including risk reduction counseling, STI screening and treatment, recommended vaccination and linkage to HIV PrEP, HIV care, or other services as appropriate.
- Persons who are prescribed doxy PEP should undergo bacterial STI testing at anatomic sites of exposure at baseline and every 3–6 months thereafter.
- Ongoing need for doxy PEP should be assessed every 3–6 months as well.
- HIV screening should be performed for HIV-negative MSM and TGW according to current recommendations.



Update on Bicillin L-A® Shortage

- Update from Pfizer June 10, 2024:
 - Pfizer noted that they currently have available supply of 2.4 million Units/4 milliliter Bicillin L-A®.
- If there is sufficient supply of Bicillin L-A ® in your jurisdiction, please consider using Bicillin L-A® for all appropriate patients, per <u>CDC's standard</u> <u>guidance</u>.
 - Indiana currently well supplied.
 - See <u>Clinical Reminders during Bicillin L-A® Shortage</u> for more information.
- DIS can assist with Bicillin L-A for treatment of pregnant women with syphilis. Pregnant women with syphilis cannot be treated with other medications.



Dengue

- Global incidence of dengue in 2024 has been the highest on record for this calendar year; many countries are reporting higher-than-usual <u>dengue case numbers</u>.
 - In 2024, <u>countries in the Americas</u> 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 June 24, 2024.



Clinical Features - Dengue

- Consider locally acquired dengue among patients who have signs and symptoms highly compatible with dengue (e.g., fever, thrombocytopenia, leukopenia, aches, pains, rash) in areas with competent mosquito vectors.
- Know the warning signs for progression to severe dengue, which include abdominal pain or tenderness, persistent vomiting, clinical fluid accumulation, mucosal bleeding, lethargy or restlessness, and liver enlargement.
- For people with suspected dengue who do not have warning signs and are not part of a population at high risk for severe dengue, consider outpatient management with close follow-up.
- Teach patients about the warning signs that may appear as their fever starts to decline and instruct them to seek care urgently if they experience any warning signs.
- Recognize the critical phase of dengue. The critical phase begins when fever starts to decline and lasts for 24–48 hours. During this phase, some patients require close monitoring and may deteriorate within hours without appropriate intravenous (IV) fluid management.
- Hospitalize patients with severe dengue or any warning sign of progression to severe dengue and follow CDC/WHO protocols for IV fluid management.

Recommendations - Dengue

- Have increased suspicion of dengue among people with fever who have been in areas with frequent or continuous dengue transmission within 14 days before illness onset
- Order appropriate diagnostic tests for acute DENV infection: reverse transcription
 polymerase chain reaction [RT-PCR] and IgM antibody tests, or non-structural protein 1 [NS1]
 antigen tests and IgM antibody tests and do not delay treatment waiting for test results to
 confirm dengue
- Ensure timely reporting of dengue cases to public health authorities
- Promote mosquito bite prevention measures among people living in or visiting areas with frequent or continuous dengue transmission.



RSV Vaccine- Early Safety Findings MMWR

- The Food and Drug Administration licensed Arexvy and Abrysvo vaccines in May 2023 for prevention of respiratory syncytial virus (RSV) lower respiratory tract disease in adults aged ≥60 years. In trials, Guillain-Barré syndrome (GBS) was identified as a potential safety concern.
- Early Safety Findings Among Persons Aged ≥60 Years Who Received a Respiratory Syncytial Virus Vaccine United States, May 3, 2023–April 14, 2024: Findings are consistent with those from trials; reports of GBS (5.0 and 1.5 reports per million doses of Abrysvo and Arexvy vaccine administered, respectively) were more common than expected background rates.
- The Advisory Committee on Immunization Practices (ACIP) recommends adults aged ≥60 years may receive 1 dose of RSV vaccine. Population-based surveillance will evaluate the potential risk for GBS to guide ACIP recommendations.



State-Specific Hepatitis C Virus Clearance Cascades — United States, 2013–2022

- Hepatitis C is a deadly, yet curable, disease. National goals for 2030 call for at least 80% of persons with hepatitis C to achieve viral clearance through well-tolerated, highly effective treatment.
- Analysis of 2013–2022 data from a large national, commercial laboratory found that hepatitis C viral clearance proportions among persons with hepatitis C varied by state from 10% to 51% and fell below established hepatitis C viral clearance goals in all jurisdictions.
- The assessment of variations in hepatitis C testing and treatment can help identify gaps, prioritize activities to improve linkage to treatment and prevention services, and allocate resources for state hepatitis C elimination programs.
- Health: HIV/STI/Viral Hepatitis: Viral Hepatitis Prevention (in.gov)



Varicella Outbreak Among Recent Arrivals to New York City, 2022–2024

- In October 2022, the New York City Department of Health and Mental Hygiene (DOHMH)
 identified a varicella outbreak among individuals who recently migrated from or through
 Central and South America and lived in New York City (NYC) shelters or residential facilities;
 the outbreak is ongoing
- The majority of varicella cases (53%) occurred in patients aged 4–18 years
- Most (92%) occurred in those with <u>no documentation of varicella vaccination</u>
- The most common sources of transmission included NYC shelters or residential facilities (41.3%) and importation or possible importation (39.4%)
- School transmission accounted for only 1.2% of cases
- Approximately 27,000 varicella-containing vaccine doses have been administered to recently arrived migrant children, adolescents, and adults by vaccination vendors deployed by DOHMH and NYC's public hospital system







Other Public Health Updates

Diamond Shruumz-brand Products

- The CDC and FDA are investigating adverse effects potentially associated with the consumption of Diamond Shruumz-brand chocolate bars, cones, and gummies. IDOH is working with local and federal partners to determine the impact in Indiana.
- FDA update on June 25, 2024: Total Illnesses: 39, Hospitalizations: 23 and Deaths: 0 from 20 states including IN.
- These products can be purchased online and in-person at smoke/vape shops and at retailers that sell cannabidiol (CBD) products and/or medical or recreational cannabis products nationwide.
- They often appeal to children and teenagers and may be mistaken for candy.





Diamond Shruumz-brand Products

We encourage providers, especially those in Emergency Departments, to keep exposure to these products on their differential if patients come in with seizures or other symptoms listed below.

- Seizures
- Loss of consciousness
- Confusion
- Lethargy/sedation
- Agitation
- Clonus
- Muscle rigidity
- Tremor
- Abnormal heart rates
- Hyper/hypotension
- Nausea, vomiting, abdominal pain
- Skin flushing
- Diaphoresis
- Metabolic acidosis with increased anion gap



Health Alert Network (HAN) - 00509 | Severe Illness Potentially Associated with Consuming Diamond ShruumzTM Brand Chocolate Bars, Cones, and Gummies (cdc.gov)

Recommendations

- Counsel patients not to purchase, consume, or serve Diamond ShruumzTM brand chocolate bars, cones, or gummies.
- Counsel patients to avoid consuming mushroom-containing edible products claiming to produce neurologic, cognitive, or psychoactive effects.
- Be aware that "edibles" or food-like products marketed with nonspecific health benefits or implied
 psychoactive effects might contain undisclosed, misformulated, or unapproved ingredients that can cause
 severe adverse health effects.
- Have a high index of suspicion for severe illness in any patient who recently consumed any of these
 products presenting to a healthcare facility with any adverse effects (sedation, seizures, muscle rigidity,
 clonus, tremor, abnormal heart rate, abnormal blood pressure, nausea, vomiting, or abdominal pain, skin
 flushing, diaphoresis, and metabolic acidosis with increased anion gap).
- Obtain early consultation with a medical toxicologist with expertise in managing patients with acute unknown ingestions. Contact your local poison center (1-800-222-1222) for advice on medical management of these patients.



Management

- Managing symptoms from an unknown exposure primarily involves supportive care
 (including, but not limited to, IV fluids, supplemental oxygen, and ventilatory support as
 indicated), and symptomatic care (Benzodiazepines are first line therapy for seizures, muscle
 rigidity, or agitation) and routine diagnostic tests (CMP, CBC, ABG, UA, UDS).
- May need EEG, neurology consult, consultation with a poison center or toxicologist.
- Consider retaining urine and blood samples for further testing.
- Urine drug screens commonly used in healthcare facilities usually only detect a limited number of compounds. Decisions to perform further testing may be based on discussions and coordination with a poison center or local health authorities.
- Consider the possibility of concomitant ingestion of other drugs or medications.
- Contact your local public health authority or regional poison center to report cases of illness after consuming mushroom-containing chocolate or other similar edible products.



Emerging drug Medetomidine

- An emerging drug, medetomidine was detected through Marion county syringe surveillance program from November 2023 through March 2024 at multiple SSP sites across Marion County.
- Currently, all syringes in Marion County that contained medetomidine also contain fentanyl or a fentanyl analog.
- While it is most commonly detected alongside fentanyl and xylazine, medetomidine has also been identified with other substances, such as heroin and fentanyl analogs
- Medetomidine is an alpha-2 agonist intended for veterinary use, similar to xylazine.
 Medetomidine was first approved by the Food and Drug Administration (FDA) in 1996 for veterinary use, specifically as a sedative and analgesic for dogs. According to an animal-based study, medetomidine was found to be a stronger and longer-acting sedative than xylazine. Medetomidine is not approved for human use.
- Closely related dexmedetomidine was approved as a sedative for human patients in 1999.



Medetomidine

- Medetomidine has been identified in multiple states. It was first detected in Maryland in July 2022. Since then, it has also been identified in drug products and has been connected to an outbreak of overdoses and adverse effects in Philadelphia, Pittsburgh and Chicago in 2024.
- Indiana's toxicology program, which tests specimens from decedents in cases
 of suspected overdose deaths, tests for medetomidine. As of May 2024, there
 have not been positive toxicology results for medetomidine.
- There have been no records of medetomidine or dexmedetomidine prescriptions in Indiana's Prescription Drug Monitoring Program (INSPECT) data from 2013 to 2024.



Clinical Effects and Management

Clinical Effects:

- Respiratory depression, dry mouth, vasoconstriction, hypothermia, hypotension and low heart rate (similar to Xylazine)
- Some symptoms of medetomidine use that are not seen with xylazine use are muscle twitches, hallucinations and peripheral cyanosis.
- It is not clear whether medetomidine use can lead to wounds like those associated with xylazine use.
- When combined with an opioid, the sedative effects of medetomidine are also longer lasting and stronger.
- Medetomidine is known to increase urination and can increase risk of dehydration.

Management:

Naloxone, hydration, supportive and symptomatic care

- Because medetomidine is not an opioid, naloxone administration may not be as effective at fully reversing a medetomidine-involved overdose.
- However, whenever an overdose is suspected, naloxone should always be administered since multiple substances may be present, and naloxone will work on any opioids contributing to the overdose.



Disrupted Access to Prescription Stimulant Medications Could Increase Risk of Injury and Overdose

- On June 13, 2024, the U.S. Department of Justice announced a federal health care fraud indictment against a large subscription-based telehealth company that provides attention-deficit/hyperactivity disorder (ADHD) treatment to patients ages 18 years and older across the United States.
- Patients who rely on prescription stimulant medications to treat their ADHD and have been using this or other similar subscription-based telehealth platforms could experience a disruption to their treatment and disrupted access to care.
- A disruption involving this large telehealth company could impact as many as 30,000 to 50,000 patients ages 18 years and older across all 50 U.S. states.
- This potential disruption coincides with an ongoing prescription drug shortage involving several stimulant medications commonly prescribed to treat ADHD, including immediate-release formulation of amphetamine mixed salts (brand name Adderall®).



Disrupted Access to Prescription Stimulant Medications Could Increase Risk of Injury and Overdose

- Patients whose care or access to prescription stimulant medications is disrupted, and who seek
 medication outside of the regulated healthcare system, might significantly increase their risk of
 overdose due to the prevalence of counterfeit pills in the illegal drug market that could contain
 unexpected substances, including fentanyl.
- Given the national drug overdose crisis and threats associated with the illegal drug market, individuals struggling to access prescription stimulant medications are urged to avoid using medication obtained from anyone other than a licensed clinician and licensed pharmacy.
- In addition to concerns about using illegally acquired stimulant medications, untreated ADHD is associated with adverse outcomes, including social and emotional impairment, increased risk of drug or alcohol use disorder, unintentional injuries, such as motor vehicle crashes, and suicide.
- Health officials and healthcare providers may need to assist affected patients seeking treatment for ADHD and should communicate overdose risks associated with the current illegal drug market as well as provide overdose prevention education and mental health support.



Ways to connect with us

- Access our <u>webpage</u> 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
- Health: Long Term Care/Nursing Homes: Newsletters
- MARK YOUR CALENDARS Clinician webinars for 2024: July 26, Aug. 23, Sept. 27, Oct. 25, Nov. 22, Dec. 27



For more information

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

- Dengue in Puerto Rico and the results from Sentinel Enhanced Dengue Surveillance System
- Toxigenic Corynebacterium ulcerans in Humans and Household Pets
- West Nile Virus and Other Nationally Notifiable Arboviral Diseases United States, 2022
- Anthrax on a Sheep Farm
- Salmonella Outbreaks



Questions?

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Next call: Noon, July 26







Dengue

- Dengue is the most prevalent mosquito borne viral illness worldwide and is endemic in Puerto Rico.
- Dengue's clinical spectrum can range from mild, undifferentiated febrile illness to hemorrhagic manifestations, shock, multiorgan failure, and death in severe cases. The disease presentation is nonspecific; therefore, various other illnesses (e.g., arboviral and respiratory pathogens) can cause similar clinical symptoms.
- Enhanced surveillance is necessary to determine disease prevalence, to characterize the epidemiology of severe disease, and to evaluate diagnostic and treatment practices to improve patient outcomes.
- The Sentinel Enhanced Dengue Surveillance System (SEDSS) was established to monitor trends of dengue and dengue-like acute febrile illnesses (AFIs), characterize the clinical course of disease, and serve as an early warning system for viral infections with epidemic potential.



Results from SEDSS: May 2012-December 2022

During May 2012–December 2022, a total of 43,608 participants with diagnosed AFI were enrolled in SEDSS; a majority of participants (45.0%) were from Ponce.

- During the surveillance period, there were 1,432 confirmed or probable cases of dengue, 2,293 confirmed or probable cases of chikungunya, and 1,918 confirmed or probable cases of Zika.
- The epidemic curves of the three arboviruses indicate dengue is endemic; outbreaks of chikungunya and Zika were sporadic, with case counts peaking in late 2014 and 2016, respectively.
- The majority of commonly identified respiratory pathogens were influenza A virus (3,756), SARS-CoV-2 (1,586), human adenovirus (1,550), respiratory syncytial virus (1,489), influenza B virus (1,430), and human parainfluenza virus type 1 or 3 (1,401).
- A total of 5,502 participants had confirmed or probable arbovirus infection, 11,922 had confirmed respiratory virus infection, and 26,503 had AFI without any of the arboviruses or respiratory viruses examined.



Toxigenic *Corynebacterium ulcerans* in Humans and Household Pets

- In April 2022, the Utah Department of Health and Human Services was notified of laboratory-confirmed toxigenic Corynebacterium ulcerans isolated from a nonhealing leg wound of a Utah resident with diabetes
- In April 2023, the Colorado Department of Public Health and Environment was notified of laboratory-confirmed toxigenic *C. ulcerans* isolated from a Colorado resident experiencing nonresolving upper respiratory symptoms. Investigations in Utah and Colorado provide evidence of the risk for C. ulcerans transmission between humans and household pets. Treatment based on antibiotic susceptibility testing results led to successful infection control.

Notes from the Field: Toxigenic Corynebacterium ulcerans in Humans and Household Pets — Utah and Colorado, 2022–2023 | MMWR (cdc.gov)



West Nile Virus and Other Nationally Notifiable Arboviral Diseases — United States, 2022

- Humans become infected by arboviruses primarily through the bite of an infected mosquito or tick.
- West Nile virus is the leading cause of arboviral disease in the continental United States.
- Despite fewer total arboviral disease cases in 2022 compared with 2021, historically high numbers of St. Louis encephalitis and Powassan virus disease cases were reported.
- Health care providers should consider arboviral testing for patients with clinically compatible illnesses.
- Prevention depends on reducing vector populations, implementing personal protective measures to decrease exposure, and screening blood and tissue donors.



Anthrax on a Sheep Farm in Winter — Texas, December 2023–January 2024

- Anthrax is a zoonotic disease. In North America, cases among humans usually follow sporadic animal outbreaks during the hot, dry summer months.
- An unexpected anthrax outbreak occurred during winter in a Texas county adjacent to the Anthrax Triangle, a region with enzootic anthrax. Confirmatory nonculture evidence of Bacillus anthracis infection was identified in a lamb and a symptomatic patient who prepared its meat for consumption.
- Routine anthrax vaccination of animals is needed in this geographic region with known enzootic anthrax. Processing animals that die suddenly from unknown causes should be avoided, irrespective of the season.



Clinical details - Anthrax

- Seen in office for soft tissue infection and was treated with a course of empiric cephalexin. Was seen in a hospital three days alter for fever, leukocytosis, a black eschar on his right wrist, and extensive edema and blistered lesions on his right arm, then developed signs of systemic involvement. Detailed history raised suspicion of Anthrax. Patient was treated with Cipro and Clindamycin.
- Two wound swabs were positive for B. anthracis DNA by real-time PCR; however, culture did not yield an organism consistent with B. anthracis.
- The patient recovered and was discharged after 1 week.
- Eleven days earlier, on December 24, 2023, he had butchered a lamb that had died suddenly on his ranch, located in a Texas county adjacent to a region with enzootic anthrax, known as the "Anthrax Triangle." Before its death, the lamb was healthy and showed no sign of disease.
- Five persons reported exposure to the lamb.
- The patient and another person seasoned and cooked the meat; the well-cooked meat was then consumed at a meal with three other persons. Among these five persons, only the index patient exhibited symptoms consistent with cutaneous anthrax, and none experienced symptoms consistent with gastrointestinal anthrax.



Salmonella Outbreaks

<u>Linked to Backyard Poultry Flocks:</u>

- As of May 23, 2024: 109 people from 29 states have gotten sick from Salmonella after touching or caring for backyard poultry. 33 people have been hospitalized and no deaths have been reported. In this outbreak, 43% of the people infected with Salmonella are under 5 years old.
- Backyard poultry can carry Salmonella germs even if they look healthy and clean. These germs can easily spread
 to anything in the areas where the poultry live and roam.
- You can get sick from touching your backyard poultry or anything in their environment and then touching your mouth or food and swallowing Salmonella

<u>Cucumbers:</u>

As of June 5, 2024, the CDC has received reports of 162 people from 25 states and DC who are sick with this outbreak strain of Salmonella. 54 people have been hospitalized and no deaths have been reported.
 Epidemiologic data show that cucumbers may be contaminated with Salmonella and may be making people sick. Fresh Start Produce Sales Inc. recalled whole cucumbers grown in Florida. This recall does not include English cucumbers or mini cucumbers. Recalled cucumbers should no longer be in stores.



CDC Warns of Salmonella Outbreak Linked to Bearded Dragons

- As of June 14, 2014, the CDC has received reports of 15 Salmonella illnesses linked to bearded dragons across 9 states. Four people have been hospitalized and no deaths have been reported.
- 60% of sick people are children under 5 years old. Bearded dragons are not recommended as pets for children younger than 5, adults aged 65 or older, and people with weakened immune systems because these people are more likely to get a serious illness from germs that reptiles carry.
- Bearded dragons can carry Salmonella germs in their droppings even if they look healthy and clean.
- You can get sick from touching your bearded dragon or anything in its environment and then touching your mouth or food and swallowing Salmonella

