

# Congenital Syphilis: An ancient evil with modern repercussions.

Maura Quinlan, MD, MPH, Women's Health Medical Advisor Arti Barnes, MD, MPH, Chief Medical Officer

July 18, 2024



## Why are we here today?

Our Goal: Raise awareness towards a call for action from our clinical community.

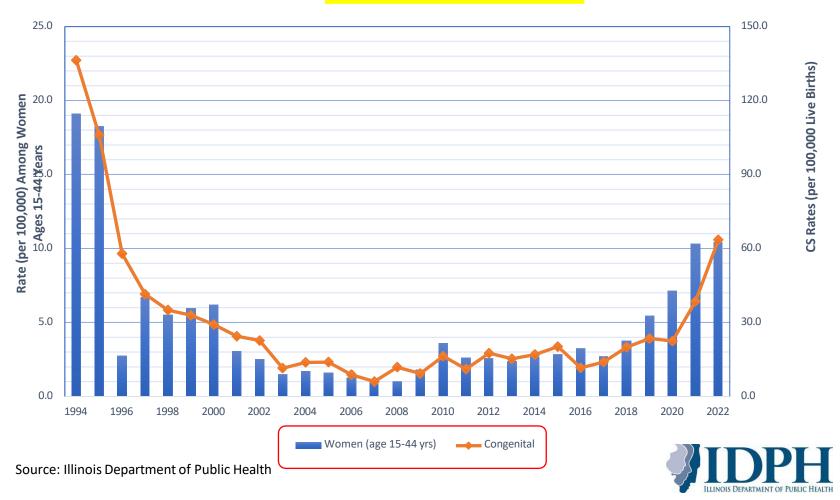
Disclosures: None



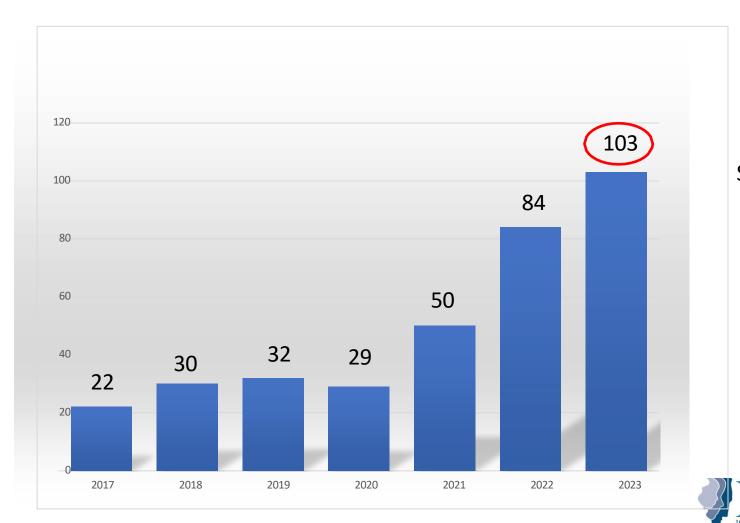


### Why now: Illinois Syphilis Data 1994-2022

Illinois Reported Primary and Secondary Syphilis Rates Among Women Ages 15-44 Years and Congenital Syphilis (CS) Rates, 1994 - 2022

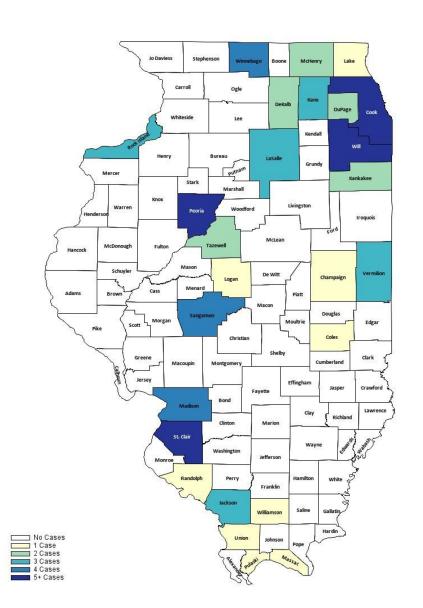


## Why we cannot standby and watch: Illinois Congenital Syphilis Cases 2017 - 2023



2023 provisional data Subject to change

### Illinois Congenital Syphilis Data by County: 2018-2022

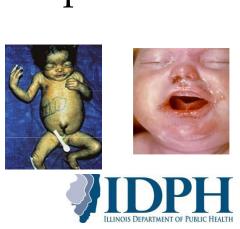




# Clinical burden of congenital syphilis

- 21% increased risk of stillbirth if untreated.
- 9% increased risk of neonatal death.
- 6% increased risk for preterm delivery.
- Miscarriage.
- Intrauterine growth restriction.
- Lifetime morbidity including developmental delay and hearing loss.

Gomez GB et al., Bull World Health Organ 2013;91:217–26. Adhikari EH, Obstet Gyn 2020;135:1121-35



### MMWR 11/2023

### Morbidity and Mortality Weekly Report (MMWR)

### Vital Signs: Missed Opportunities for Preventing Congenital Syphilis — United States, 2022

Early Release / November 7, 2023 / 72



#### Print

Robert McDonald, MD<sup>1</sup>; Kevin O'Callaghan, MBBCh<sup>1</sup>; Elizabeth Torrone, PhD<sup>1</sup>; Lindley Barbee, MD<sup>1</sup>; Jeremy Grey, PhD<sup>1</sup>; David Jackson, MD<sup>1</sup>; Kate Woodworth, MD<sup>2</sup>; Emily Olsen, PhD<sup>2</sup>; Jennifer Ludovic, DrPH<sup>1</sup>; Nikki Mayes<sup>1</sup>; Sherry Chen, MPH<sup>1</sup>; Rachel Wingard<sup>3</sup>; Michelle Johnson Jones, MPH<sup>1</sup>; Fanta Drame, MPH<sup>1</sup>; Laura Bachmann, MD<sup>1</sup>; Raul Romaguera, DMD<sup>1</sup>; Leandro Mena, MD<sup>1</sup> (VIEW AUTHOR AFFILIATIONS)

#### View suggested citation

### Summary

### What is already known about this topic?

Since 2012, U.S. congenital syphilis cases increased substantially. Syphilis during pregnancy can lead to stillbirth, miscarriage, infant death, and maternal and infant morbidity, which are preventable through appropriate screening and treatment.

### What is added by this report?

In 2022, lack of timely testing and adequate treatment contributed to almost 90% of congenital syphilis cases in the United States, including substantial proportions of congenital syphilis cases in all U.S. Census Bureau regions and among all racial and ethnic groups.







TABLE 1. Prenatal syphilis testing and treatment among birth parents of infants with congenital syphilis, by U.S. Census Bureau region, and by race and ethnicity — United States, 2022

	Missed opportunities to prevent CS, no. (%)						
	Testing		Treatment		Outcome		
Characteristic	None or nontimely*	Late identification of seroconversion <sup>†</sup>	Inadequate	None or nondocumented	Clinical evidence of CS despite adequate <sup>§</sup> prenatal treatment	Insufficient data to identify the missed opportunity	Total
All cases	1,385 (36.8)	197 (5.2)	1,494 (39.7)	423 (11.2)	130 (3.5)	132 (3.5)	3,761
U.S. Census Bureau reg	gion¶						
Northeast	83 (50.0)	25 (15.1)	26 (15.7)	14 (8.4)	11 (6.6)	7 (4.2)	166
Midwest	182 (40.4)	25 (5.5)	140 (31.0)	58 (12.9)	19 (4.2)	27 (6.0)	451

# Missed Opportunities Statewide 2022

	Chicago	Cook Co (Excluding Chicago)	Downstate
	N (%)	N (%)	N (%)
Category			
Α	27 (60)	5 (50)	12 (41)
В	10 (22)	4 (40)	13 (45)
С	8 (18)	0	4 (14)
D	0	0	0
E	0	1 (10)	0

- A) No adequate maternal treatment despite receipt of timely syphilis diagnosis
- B) No timely prenatal care and no timely syphilis testing
- C) Late identification of seroconversion during pregnancy
- D) No timely syphilis testing despite receipt of timely prenatal care
- E) Clinical evidence of syphilis despite maternal treatment completion



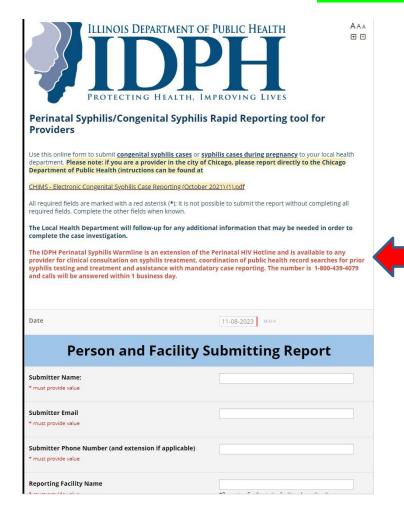
# What is the public health system doing for this and what you can do as clinicians?

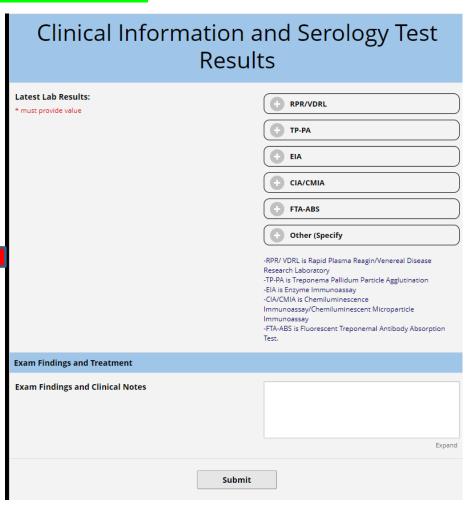




### **Faster linkage to pregnancy status**: New provider reporting form for perinatal syphilis (OUTSIDE Chicago)

https://redcap.link/syphreport







### To report syphilis in Chicago (CDPH)

By phone

CALL 312-743-9000
OR CALL 311 after business hours. ASK for the communicable disease physician.

Electronic reporting



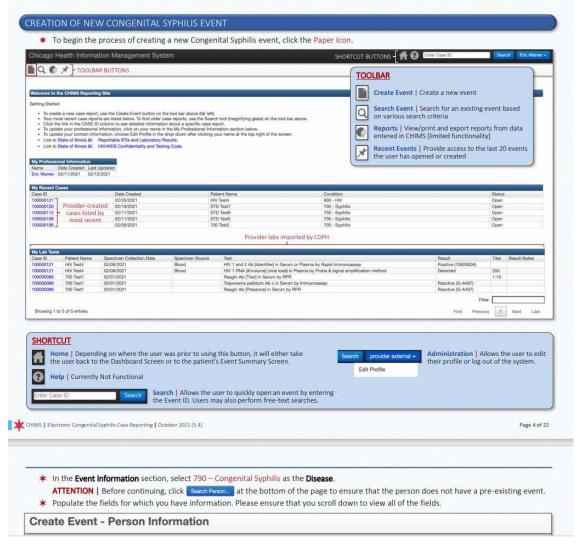
Welcome	
Welcome to the Chicago Health Information Management System (CHIMS) Provider Portal Account Application System, managed by the Chicago Department of Public Health (CDPH), This system will allow you to accomplish the following:	
Start or resume account application     Submit your application	
Register	
	_

Login	
If you already start	ted your application, please login below.
Username	Username or email
Password	Password
	Login
Forgot your passw	ord? Reset password

Contact Us



# CHIMS – CDPH Electronic Congenital Syphilis Case Reporting





### Treat in any setting

- Can be challenging to correctly diagnose stage to guide treatment.
- But treatment is safe and effective and can be done in any setting.
  - ED/urgent care.
  - Primary care provider.
  - Sexual health clinic.
  - Home administration of BCN.



# We are here to help! Perinatal Syphilis Warmline Launched 11/1/2023.



(800) 439-4079



### NEWS RELEASE

FOR IMMEDIATE RELEASE:

November 2, 2023

CONTACT:

Michael.Claffey@illinois.gov James.Leach@illinois.gov

IDPH Launches New Provider Phone Line in Response to Alarming Increase in Babies Born with Congenital Syphilis

CHICAGO – Acting to address a sharp increase in congenital syphilis cases among newborns, the Illinois Department of Public Health (IDPH) is urging healthcare providers to conduct more testing for the sexually transmitted infection in advance of birth and is launching a new phone line to provide clinical consultation for providers who treat pregnant patients and newborns.





### **NEWS RELEASE**

### FOR IMMEDIATE RELEASE:

November 2, 2023

### CONTACT:

Michael.Claffey@illinois.gov James.Leach@illinois.gov

IDPH has issued <u>a letter to healthcare providers</u> in the state calling for increased awareness and testing for syphilis.

IDPH is encouraging medical providers to increase syphilis testing of all individuals - especially pregnant people - in any medical setting, including urgent care, emergency departments, and all prenatal care settings. Prenatal health care providers are required by Illinois law to screen all who are pregnant for syphilis infection at the first prenatal visit and early in the third trimester. Additional testing at the time of delivery is also recommended in high-risk settings.

The expansion of the Illinois Perinatal HIV Hotline to include the Perinatal Syphilis Warmline will provide clinical consultation for health care providers for syphilis in pregnancy and the newborn period, coordination of public health record searches to obtain prior syphilis testing and treatment information, and assistance with mandatory reporting. The warmline will be available Monday- Friday with messages returned in one business day.

Reducing syphilis cases (especially congenital syphilis) has the additional challenge of the current Bicillin shortage, the only medication that treats syphilis in pregnancy and children. Until this shortage is alleviated, it is critical that providers prioritize Bicillin inventory for treatment of those for whom there are no other treatment options: infants and those who are pregnant. Providers should consult the <a href="CDC treatment guidelines">CDC treatment guidelines</a> to ensure adequate care. Those who are pregnant should talk to your health care provider about testing and any needed treatment as you prepare for your baby's arrival.



# What if your patient moves, can't come for treatment, needs a partner treated...there is help!





## Disease Intervention Specialist (DIS)





- CDC trained community health workers in local health departments.
- Collaborate with providers.
- Identify/track/prevent infection transmission.
- Provide sex education.
- Connect to treatment.
- Referrals to wrap-around services (WIC, PReP, housing, harm reduction).
- If possible, tell your patient a public health professional will be calling them!



# To reach Local Health Department for help (ask for STI team!)

### **Outside Chicago**

IDPH Health Regions & Local Health Departments

Health Regions and Local Health Departments



### In Chicago

• CDPH main phone line 312.747.9884





# Potential future efforts for CS prevention

- City and statewide efforts to increase Bicillin access.
  - Mobile units in larger cities.
  - Enhanced case management for syphilis in pregnancy in rural areas.
- Expand rapid testing/treatment.





# Thank you for all you do...we APPRECIATE YOUR HELP in our battle against congenital syphilis.

Maura.Quinlan@Illinois.gov Arti.Barnes@Illinois.gov







### BEAT THE HEAT: Extreme Heat

Heat-related deaths are preventable



- Graham Briggs, MS
- Hillary Spencer, MD, MPH
- Illinois Department of Public Health



Tim Barber

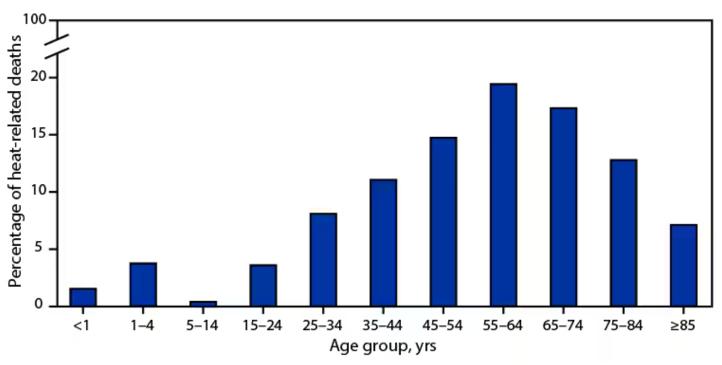
735 die in 1995 Chicago heat wave, most victims were elderly and poor.



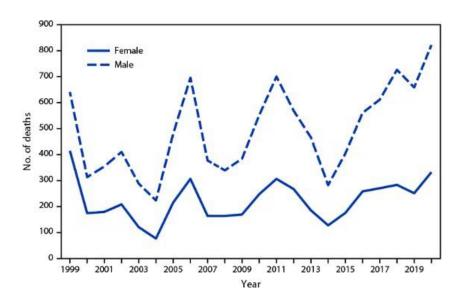
# What I want you to take away from this:

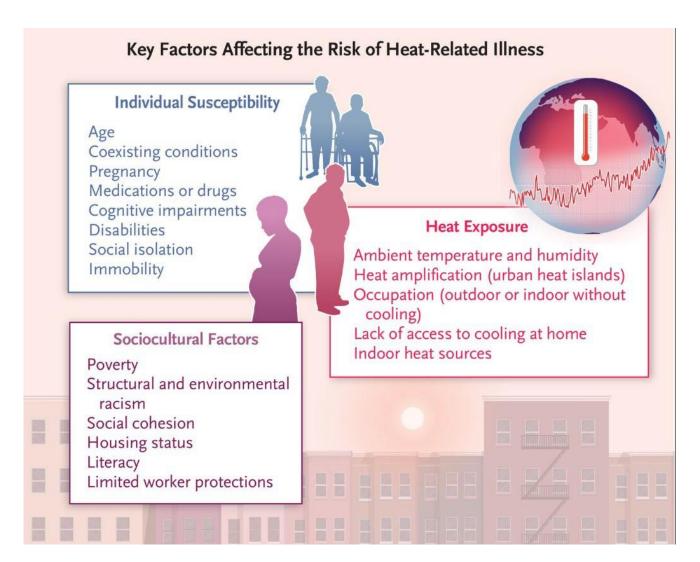
- Heat leads directly to heat illnesses (i.e., heat stroke or heat exhaustion).
- Heat contributes to increased morbidity and mortality indirectly in individuals with underlying risk factors.
- YOU can help patients prevent heat injury by recognizing risk factors and creating a plan to stay safe.
- Now is the time to plan how you and your clinic respond to heat advisories.

### Approximately 1,200 heat-related deaths annually in the U.S.



### More men than women die due to heat exposure.







- Pregnant
- Child with asthma
- Heart condition
- Other chronic conditions
- Certain medications
- Homeless

People at Increased Risk for Heat-Related Illness | Extreme Heat | CDC

Agent	Mechanism <sup>27</sup>
Alcohol	May reduce alertness and affect judgment and perception of heat; exacerbates dehydration and affects vasodilation and cardiac contractility
Amphetamines	May increase metabolic heat production
Anticholinergics	May decrease sweat production
Antihistamines	May cause peripheral vasoconstriction, limiting radiative cooling
Antipsychotics	Interferes with hypothalamic thermoregulation
Benzodiazepines	May reduce alertness and affect judgment and perception of heat
Beta-blockers	Decreases heart rate and contractility
Calcium-channel blockers	Decreases cardiac contractility and compromises vascular compensatory mechanisms
Diuretics	May increase risk of dehydration and hypovolemia
Illicit drugs (e.g., cocaine, heroin, phencyclidine, and MDMA)	May increase metabolic heat production and reduce alertness and judgment
Laxatives	May increase risk of dehydration and hypovolemia
Lithium	May reduce alertness and affect judgment and perception of heat and lead to nephrogenic diabetes insipidus; levels may rise to danger ous levels and cause kidney injury in the context of dehydration
Serotonin-reuptake inhibitors	May interfere with hypothalamic thermoregulation
Thyroid agonists	May increase metabolic heat production
Tricyclic antidepressants	May cause peripheral vasoconstriction, thereby limiting radiative cooling, and may affect central thermoregulation
Weight-loss supplements that may increase metabolic rate (e.g., carnitine and green tea extract)	May increase metabolic heat production

<sup>\*</sup> This list of medications (based on information from Pryor et al. <sup>28</sup>) and mechanisms is not comprehensive. MDMA denotes 3,4-methylenedioxymethamphetamine.

### 5 Steps to Prepare for Hot Days For Pregnant Women



Being outside can be good for your health, but for pregnant women, heat can increase health risks. Use these tips and action items, when possible, to stay safe on hot days.



#### Stay cool



- . Most pregnant women are sensitive to heat on Orange heat risk days, but some are sensitive on Yellow days. Work with your doctor to know when to take action. Actions . Include-
- . If you are outside, especially for a long time:
- Stay in the shade as much as possible; take breaks when you can.
   Check the local weather forecast and do outdoor activities during the coolest parts.

  I need to start taking action to stay safe (circle): of the day or evening, if possible.
- . When you are indoors:
  - Use air conditioning, if available, or find and go to a location with one.
- Use a fan to cool your body off, only when indoor temperatures are less than 90°F.
   On Red and Magenta days, limit your time outside if possible and check the HeatRisk



If I need to stay cool, I can go here:

. Yellow HeatRisk

- · Orange HeatRisk
- Here's who can check on me on hot days:

Stay hydrated

- · Carry a water bottle. Drink and refill the water bottle throughout the day.
- Limit beverages high in sugars, sodium, and caffeine, if possible.
   Check your urine color. When it's light yellow or clear, it usually means you are drinking enough water.
- Talk to your doctor about how to manage fluids given your pregnancy.

### Check for heat-related symptoms

If your body gets too hot, you can get sick. Know signs of worsening pregnancy complications. Know when to seek care.

Unusually heavy





Other signs can include shortness of breath, tiredness,

I will seek medical attention when

weakness, nausea, and If I am feeling overheated, I will:



### Check air quality

se. Poor air quality can worsen symptoms.

You can check local air quality on the HeotRisk Dashboard. The Air Quality Index (AQI) indicates how healthy your outdoor air is to breathe, ranging from 0 (good) to 500 (hazardous).

Less than For most people, this is a good day to be active outside. Some pregnant people are sensitive to air pollution when the air quality is 51-100. Talk to your doctor to see if this applies to you.

- More than Consider limiting outdoor activity.

  Consider limiting outdoor activity.

  When indoors,
  - . Use a portable air purifier, if available.
  - + Reduce sources of indoor air pollution, like digarette smoke.
- Steps I can take to keep air in my home clean: Reduce indoor pollutants, like candles, air fresheners, and cigarette smoke
- Bring outdoor air in when cooking (when AQI less than 100)
- Use a portable air purifier



#### Have a medication plan

Many medicines can make you dehydrated or overheated on hot days. Also, some need to be kept out of hot places.

- . Don't stop or change your medicines until you talk to your doctor.
- Heat can cause power outages. Have a plan for what to do with refrigerated medications and electronic medical devices.
- . Store your medicines properly-some may need to be kept out of hot places.

When HeatRisk is orange or higher:

No need to change my medications

I need to make the following changes to my

My backup plan for a power outage is:

### Patient management



### Clinical Guidance for Heat and Children with Asthma



### Clinical Guidance for Heat and Pregnancy



Clinical Guidance for Heat and Cardiovascular Disease

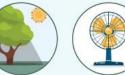
Heat action plan



### Make a Heat Action Plan with Your Doctor



### 1 Stay Cool





Use a fan



Use an air conditioner



Check the CDC HeatRisk Dashboard for more information.

### 2 Stay Hydrated



### **Know the Symptoms**

Unusually heavy sweating



Shortness of breath



Dizziness



Other signs can include headache, tiredness, weakness, and nausea.

### **Check Air Quality**



### 5 Have a Medication Plan



Make a plan



Store in a cool place

Prepare for power outages



### **Heat & Health Tracker**

### Home

\*\*\*NEW HEAT AND HEALTH INDEX\*\*\* - Click on the "Heat and Health Index" (HHI) in the left navigation menu to access the HHI and learn more about the intersection of heat and health.

#### Home

Health Burden

Heat Exposure

Heat and Health Index

HeatRisk

About the Data

Learn More



Heat poses significant and increasing risks to public health across the United States. Use this dashboard to explore your community's heat exposure, related health outcomes, and assets that can protect people during heat events.

Explore heat and health data for your community

Illinois







See daily and historic rates of heatrelated illness for workers and the public forecast, as well as historic trends, and

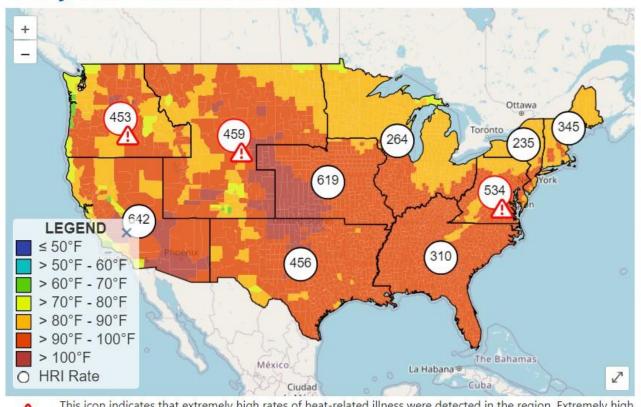
Heat Exposure

Explore the 7-day national heat risk future projections

Heat and Health Index

Identify communities where people are most likely to feel the impacts of heat

### **Daily Heat-Related Illness**



Choose a date 7/14/2024



#### About the Data

This map shows the rate of emergency department (ED) visits associated with heat-related illness (HRI) per 100,000 ED visits by region. The regions are defined by Health and Human Services for the selected day using data available through the National Syndromic Surveillance Program. Use the above dropdown to change the selected date. The colors on the map show the average maximum temperature by county for the same day and year, using data from the National Center for Environmental Information.



This icon indicates that extremely high rates of heat-related illness were detected in the region. Extremely high rates of heat-related illness are defined as exceeding the 95th percentile based on data from 2018-2023.



Home

Health Burden

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Heat and Health Index

HeatRisk

About the Data



## Heat & Health Tracker

### **County Heat & Health Data**



### Sangamon County, IL

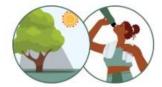
Extreme heat can lead to heat stroke, heat cramps, heat exhaustion, dehydration, and death. Anyone can be at risk, but some are more vulnerable, including pregnant women, people with heart or lung conditions, young children, older adults, athletes, and outdoor workers. This county profile provides specific information on its vulnerable populations, how extreme heat events are changing in the community, and critical resources for use during an extreme heat event.



Today's HeatRisk is Moderate.

Today is an okay day to be outside for most people.

People who are outside for a long time or who are sensitive to heat could have health impacts.



https://ephtracking.cdc.gov/Applications/heatTracker/

#### CHILL'D OUT

Housing

solation

Outside



Use this questionnaire with your patients to assess risk factors for health harms from heat or poor air quality. Then, create a Heat Action Plan with your patient. If there is limited time, cover the bolded questions.

- Does your patient have working air conditioning?
- Can they check and control indoor temperatures where they live?
- Do they have an electric fan?
  - Do they know how to locate a cooling center if needed?
    - Does your patient have stable housing?
  - Do they live on a higher floor of a multi-story building where they may be exposed to more heat?
  - Are they regularly exposed to indoor air pollutants such as secondhand smoke or mold?
  - Do they have a portable air purifier or a filter in their HVAC system?
  - Does your patient have a neighbor, friend, or family member who can check on them during hot days?
  - Does their mobility limit their ability to seek cooling in their home or elsewhere?
- If heat leads to a power outage, does your patient have a plan for refrigerated medications and/or electric medical devices?
- Does your patient check the daily and hourly weather forecast to know the hottest time of the day? Can they access the HeatRisk tool? earning
  - Where does your patient get information about how to protect their health from heat? What measures do they take to do so?
- Drugs Does your patient take medications that increase risk from heat exposure?
  - How much time does your patient spend outdoors on hot days for work, sports, or recreation?
  - Are they exposed to outdoor air pollution at home, work, or elsewhere, such as a major roadway, construction site, industrial facility, or frequent wildfire smoke?
  - Do they have allergies to grass, weeds, and tree pollens?

# Community cooling centers



Cooling Centers (cookcountyil.gov)

What can your clinic do?

Blizzard Checklist*			
(also applies to major snowstorms >12 inches expected)			
		Blizzard Watch	Blizzard Warning
		PREPARE	ACT
		√ Designate Incident Commander and initiate planning and operational cycles	√ Expand Incident Command System according to impact of event - continue scheduled planning/operational cycles
		✓ Notify key response staff	✓ Determine need for key response staff to report / remain in-house during storm
		√ Prepare EOC and test relevant equipment	✓ Open EOC
		√ Anticipate need for and test back up communication devices	✓ Distribute back up communication devices as needed
		√ Request department leaders review emergency plans	✓ Ensure knowledge and availability of emergency plans for each department in EOC and departments
_		√ Public Information Officer (PIO) develops and implements communications plan for staff - tiered to reflect information needs, patients, and families	✓ PIO monitors media, manages press releases, continues to manage communications needs of staff, patients, and families
6		√ Request staff develop childcare plan in case of school 'snow days'	✓ Request staff implement alternate childcare plans if school dismissed
$\succeq$		√ Request staff develop contingency communting plan	✓ Request staff implement contingency commuting plans depending on event impact
ADMINISTRATION		√ Advise staff working over next few days to bring medications, toiletries, and clothing change as required	√ Request staff bring personal medications, toiletries, and change of clothing to work
		√ Appoint safety officer - identify and mitigate anticipated safety issues - ice, snow, power outage safety issues, etc.	✓ Safety officer identifies and mitigates safety issues in conjunction with Incident Command
		√ Inform all hospital staff of possibility of storm	/ Inform all hospital staff of storm updates, impact updates
Σ		✓ Update staff contact information	Contact staff as required for call-in or other communications
AD		√ Assure staff awareness of Severe Weather materials on response guide	✓ Recommend specific actions for staff based on response guide and evolving incident
		√ Evaluate HR policies regarding overtime, sleeping at work, etc. to determine areas for flexibility	✓ Continue to work with HR on temporary modifications of policies
PATIENT CARE		√ Determine clinical services which may be interrupted and those that must be sustained.	√ Cease nonessential clinical services and reorganize staff
		√ List patients that may be discharged if necessary	√ Discharge patients as possible prior to storm onset
		√ List patients that could/should be transferred to other facility, SNF, LTC	√ Transfer patients as possible to other facilities, SNF, LTC
		√ Estimate number of patients anticipated for surgery, other admissions	√ Ensure space available for arriving patients or cancel procedures
		√ List elective procedures and surgeries to postpone	√ Postpone elective procedures and surgeries as required
	Inpatient	√ Notify extra staff of possibility of being called in for emergency assistance.	√ Assess need and, if necessary, call in extra staff for anticipated emergency assistance
		√ Consider orders that may be unavailable or nonessential (labs, radiology, etc)	√ Restrict nonessential ordering (labs, radiology, etc) as required
		√ Prepare for computer or network downtime	√ Implement computer or network downtime procedures
		√ Prepare for and anticipate power outages	√ Ensure that providers are aware of power outage procedures and location of flashlights, etc.
		√ Assure essential equipment on red plugs, and non-essential equipment is NOT on red plugs.	√ If power fails, assure non-essential equipment is not plugged into generator power
		√ Plan visitor restrictions during incident	√ Implement visitor restrictions, send visitors home
	100	√ Communicate plans to providers, patients, and families	√ Communicate actions to providers, patients, and families
		√ Prepare to cancel outpatient appointments - notify patients of possibility of cancellation	✓ Cancel outpatient appointments
		√ Review procedures for converting facilities to provide urgent/ emergent/ inpatient care as needed	✓ Convert facilities to provide urgent/ emergent/ inpatient care as needed
	l	√ Estimate number of patients arriving	✓ Ensure space available for arriving patients
	l	√ Notify extra staff of possibility of being called in for emergency assistance	✓ Assess need and, if necessary, call in extra staff for anticipated emergency assistance
	l	√ Prepare for computer or network downtime	√ Work with computer or network downtime procedures
	l	√ Prepare for and anticipate power outages	✓ Ensure that providers are aware of power outage procedures
1	100	√ Communicate plans to providers	✓ Communicate actions to providers

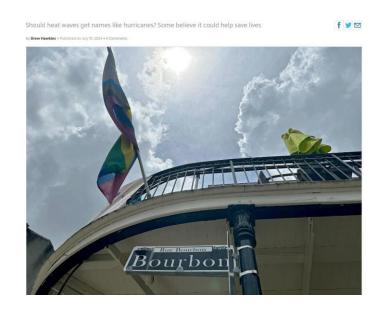
Blizzard Hospital Checklist (hhs.gov)

## What can your clinic do?

- Notify patients.
- Consider rescheduling visits/converting to telemed for patients who may have to wait outside for transportation.
- Consider the timing of procedures, which may limit mobility.
- Flag patients for heat action planning.

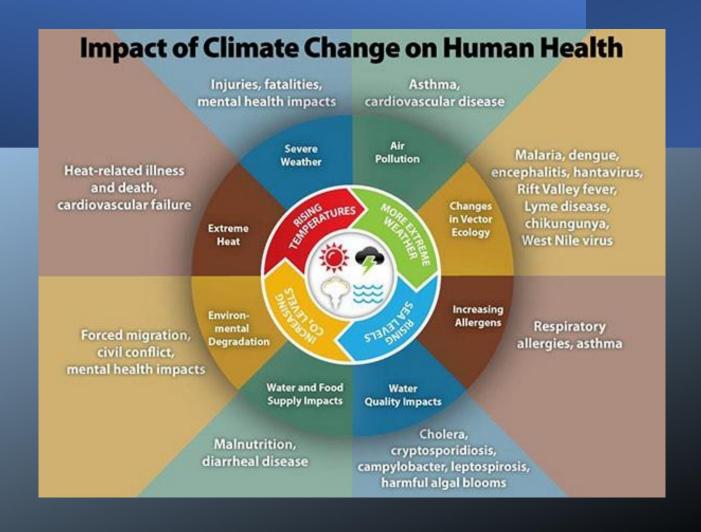


Should heat waves get names like hurricanes? Some believe it could help save lives.

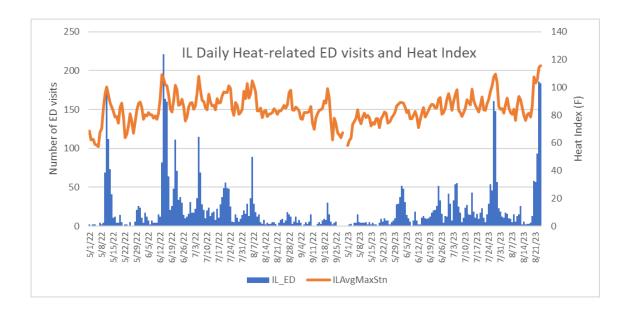




"People need to get riled up..."

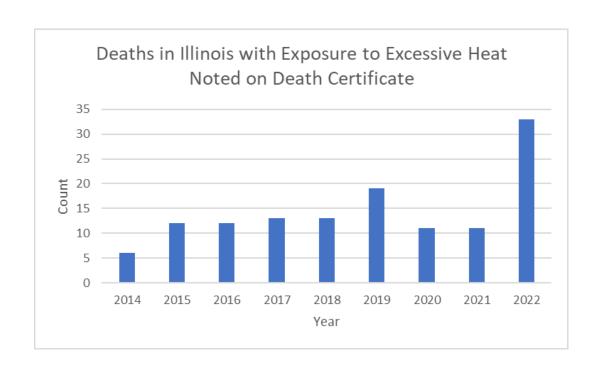


Priority #1 Increase information sharing with the public through the IDPH website.



Priority #2 Increase community resilience and emergency response capacity.

Priority #3 Better understand extreme weather impacts on health and develop communitylevel strategies.



Priority #4 Build partnerships across Illinois to collaborate on extreme weather initiatives.

