

The Fungus Among Us

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What are endemic mycoses?

In general, fungal infections are increasing worldwide. We tend to hear about fungal infections when trying to get rid of yellow toenails, ringworm, and yeast infections. In healthcare, we have been hearing a lot about prevention and response to *Candida auris*, a treatment-resistant fungal infection that is spreading throughout the U.S. including in PA.

Endemic fungal organisms, called endemic mycoses, are typically found in soil or decaying matter and are not transmitted person-to-person, but outbreaks can occur from environmental contamination (such as potted plants, flowers, pet birds, and construction projects).

Endemic mycotic infections should be considered in a differential diagnosis for high-risk patients (e.g., transplant recipients, immunocompromised, HIV positive, prolonged corticosteroid use), for people who travel, and during construction projects both at your facility and in surrounding areas ([American Society for Health Care Engineering construction risk assessment](#)).

Common endemic mycoses:

Histoplasmosis (*Histoplasma*)

Aspergillosis (*Aspergillus*)

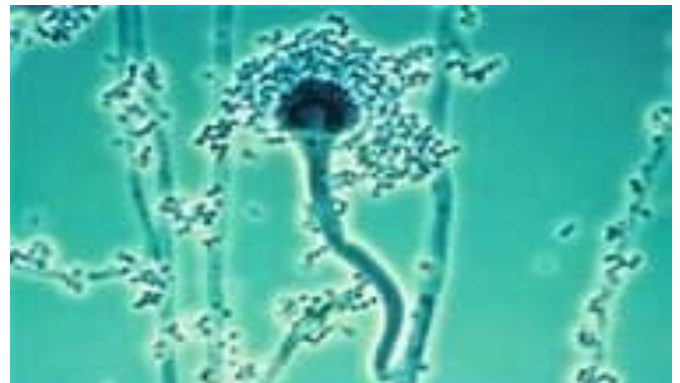
Cryptococcosis (*Cryptococcus gattii*, *Cryptococcus neoformans*)

Coccidioidomycosis (Valley fever, *Coccidioides*)

Blastomycosis (*Blastomyces*)

Help us monitor for ***Aspergillus fumigatus* azole-resistance** in PA.

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What is the endemic mycoses situation in Pennsylvania?

Only histoplasmosis and fungal meningitis (typically *Cryptococcus neoformans*) are reportable by law in PA, making it challenging to track and understand the broader impact of the endemic mycoses in our state and region. To assist with surveillance in our region, PA participates in periodic CDC fungal reports (check out the [2019 report](#)). There were thirteen reported cases of cryptococcal meningitis in 2022 and 20 reported cases in 2023. Since 2018, less than five cases of coccidioidomycosis were reported per year in PA. Below is a graph that illustrates the probable and confirmed cases of histoplasmosis in PA from 2017-2023.

Think fungus for susceptible patients with compatible symptoms, let us know if you have questions, and help us monitor azole resistance by submitting isolates (see box for details).

Resources and further reading:

- [CDC Fungal Diseases](#)
- [Nosocomial aspergillosis and building construction](#)



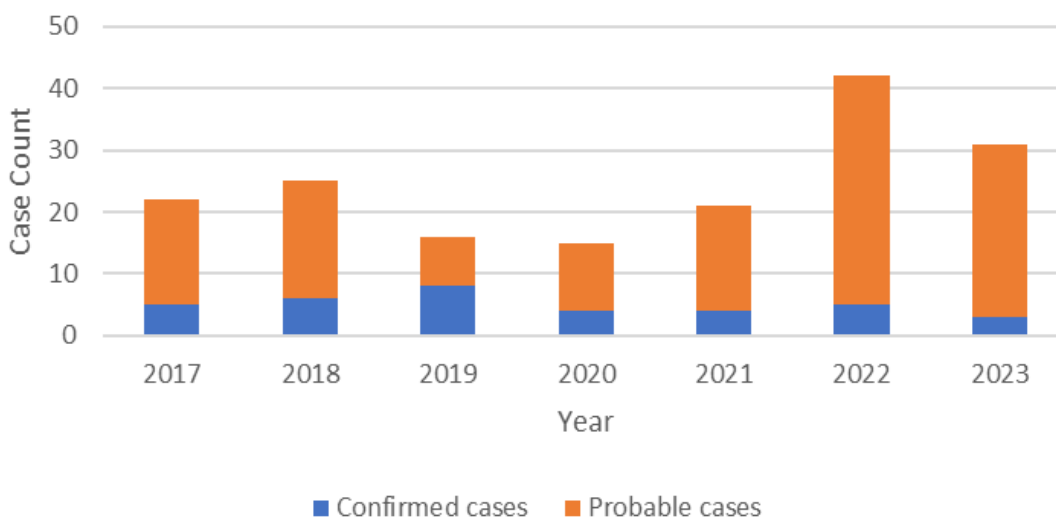
Help us monitor for ***Aspergillus fumigatus*** azole-resistance in PA by submitting your isolates for testing.

The most common cause of human aspergillosis, *Aspergillus fumigatus*, can develop resistance to azole antifungals during long-term treatment of infected patients or in environments where azoles have been used in agriculture. Azole-resistant strains have been [identified in Pennsylvania](#), increasing the need for awareness and action by clinical and public health professionals.

Testing is provided **at no cost** by the CDC Antimicrobial Resistance Laboratory Network ([ARLN](#)). Help us protect our limited antifungal treatments!

Email RA-DHHAI@pa.gov to request testing.

Pennsylvania Histoplasmosis Cases, 2017-2023**, excluding Philadelphia



****2023 case counts are not finalized and are subject to change.**



Educational Opportunity from the Statewide Program for Infection Control and Epidemiology (SPICE)

Instrument Reprocessing:

High-Level Disinfection and Sterilization for the Infection Preventionist

This self-paced course consists of five short modules.

Topics covered:

- 1) Physical Plant Design
- 2) Spaulding Classification Scheme
- 3) Decontamination, Precleaning, and Transport
- 4) High-Level Disinfection (HLD)

- 5) Sterilization Process. View each of the modules At the end of Module 5 you will be directed to a 10 question test. You must get at least 80% of the questions correct. You can retake the test as needed. When 80% is achieved, you will be redirected to a short evaluation of the course. Complete the evaluation and get your course completion certificate!

[This course is free and on-line.](#)

Project Firstline Educational Opportunities

Spark the Conversation: Fireside Chats on Infection Control with PFL Infection Preventionists Available to ALL Frontline Healthcare Workers!



Register Today!

[Click Here](#)

Project Firstline is Presenting at the following conferences:

April 2-5, 2024

[PADONA 36th Annual Conference](#) Project Firstline presenting *The Great Escape from Infections*

May 6-8, 2024

[Leading Age Conference](#) Project Firstline Presenting *Risk Recognition and Reservoirs*



National Health Observances

- **Month of April**
National Minority Health Month
- **First Friday of April**
International Infection Preventionist Day
- **April 1-7, 2024**
National Public Health Week
- **April 18-24, 2024**
Pediatric Sepsis Week
- **May 12-18, 2024**
Maternal Sepsis Week



News You Can Use

Nursing2024 has published free continuing education (CE) in the January 2024 issue.

“*Candida auris*: Emerging fungal pathogen in the US” was authored by infection preventionist, Dottie Borton. It can be accessed at this link: [Candida auris: Emerging fungal pathogen in the US : Nursing2024 \(lww.com\)](#).

This is an excellent one-stop read for anyone looking to learn about *C. auris* epidemiology and the necessary infection prevention and control measures for this organism.

Antimicrobial Resistant Organisms Reported in Pennsylvania

Carbapenemase	Quarter 4 - 2023 (10/01/2023 – 12/31/2023)				
	CRE	CRAB	CRPA	No Organism*	Total by Mechanism
KPC	17	0	0	0	17
NDM	6	0	0	0	6
IMP	0	0	0	0	0
OXA-like	0	11	0	0	11
VIM	1	0	0	1	2
Carbapenemase detected by phenotype, no genotype detected	0	0	0	0	0
Total by Organism	24	11	0	1	36 [†]

	Clinical	Colonized	Total
<i>Candida auris</i>	7	12	19

*Organisms not tested for during point prevalence survey screening

† Three cases had two carbapenemase genes

Abbreviations:

CRE=Carbapenem-resistant *Enterobacteriales*

CRAB=Carbapenem-resistant *Acinetobacter baumannii*

CRPA=Carbapenem-resistant *Pseudomonas aeruginosa*.

Learn more about carbapenemases and CRE at:

[CDC CRE Technical Information](#)

*Data include all counties in PA except for Philadelphia. The counts were captured through voluntary reporting by health care facilities and laboratories, including the PA Bureau of Laboratories. Philadelphia's surveillance data, is available at <https://hip.phila.gov/data-reports-statistics/healthcare-associated-infections>.

References

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