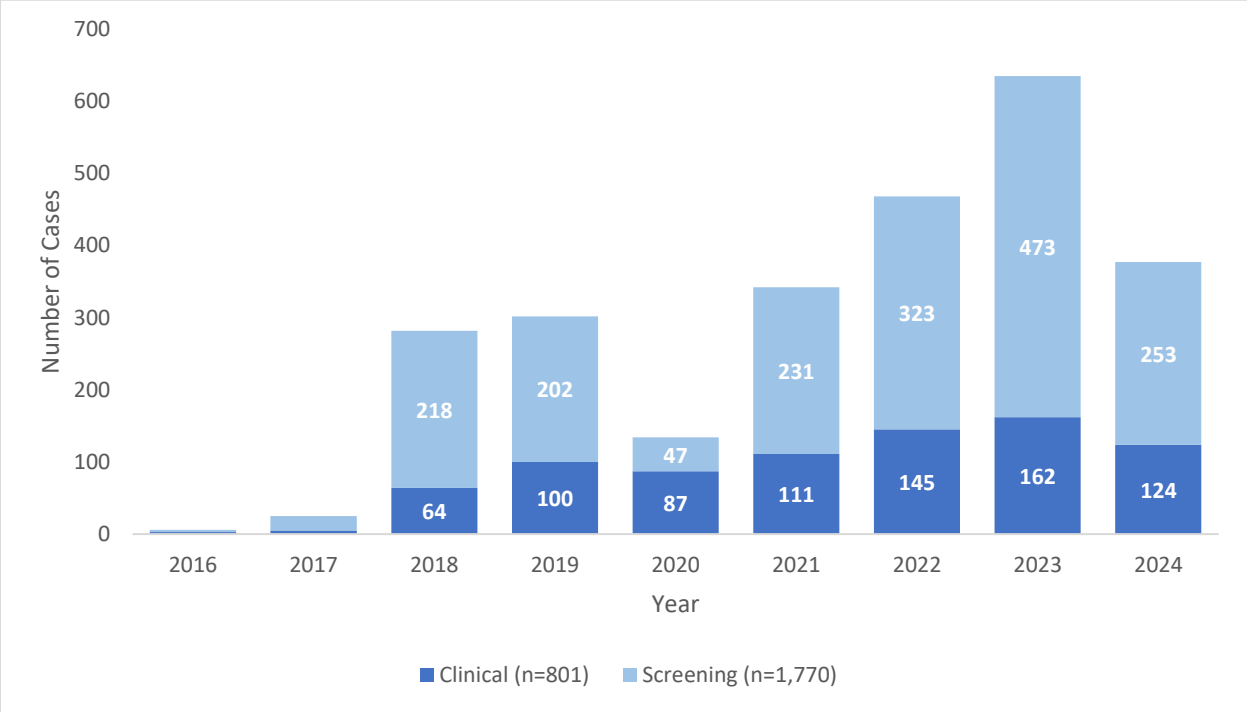
Report updated: 7/18/2024
Data through June 30, 2024

Candida auris Data Summary – Chicago, IL

Candida auris is a yeast that is often multi-drug resistant and can spread in healthcare settings via person-to-person transmission or contact with contaminated surfaces. *C. auris* can cause serious, difficult to treat infections.

C. auris began spreading across Chicago, Illinois in 2016. As of June 30, 2024, there have been 801 clinical cases, where individuals were ill and *C. auris* was detected during their clinical care. Additionally, 1,770 individuals have been identified to be colonized with *C. auris* (screening cases). Colonized individuals are not ill from *C. auris*; they are tested during admission to a healthcare facility or during prevalence surveys (PPS), primarily using a swab of the axilla/groin.

Figure 1. Chicago *C. auris* Cases (n=2,571) by specimen collection year and specimen type[1], May 2016 – June 30, 2024[2]



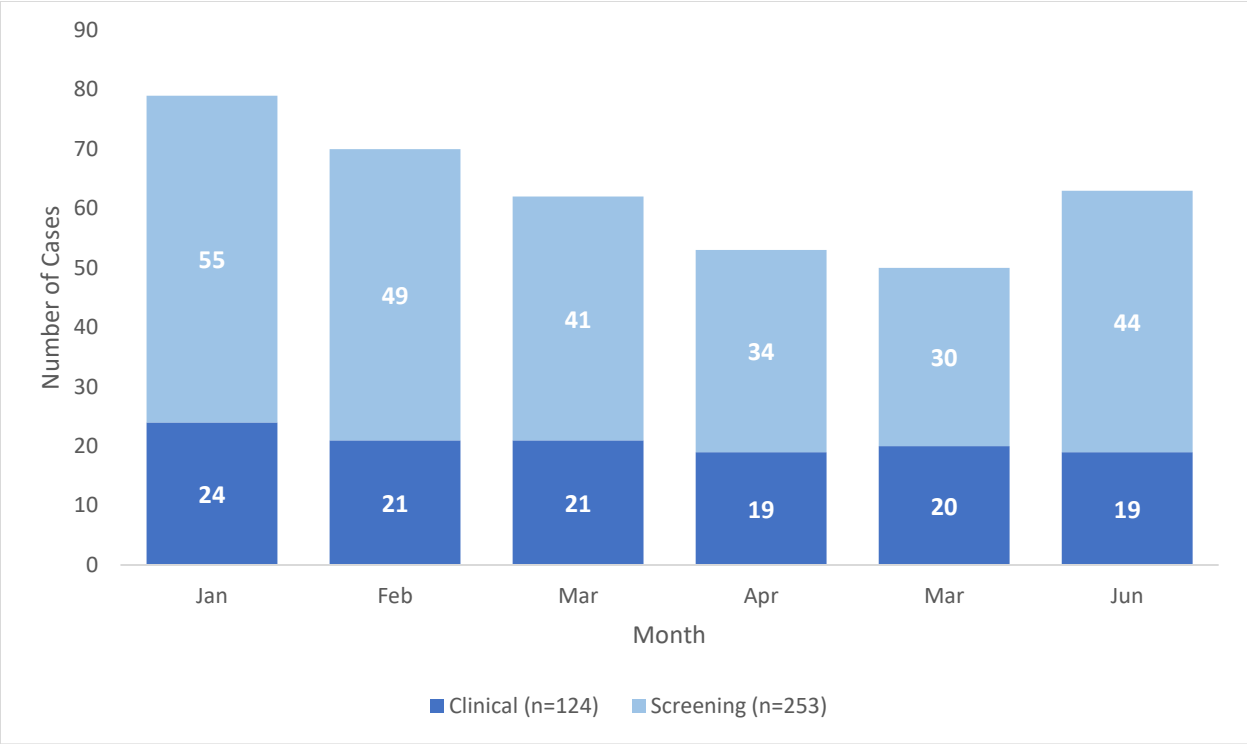
[1]*Colonized (screening) to clinical cases (n=198) are counted twice: once as a screening case and once as a clinical case at the time of specimen collection*
[2]*Data are provisional as of 7/18/24*
Data Source: Combined de-duplicated IL XDRO Registry, INEDSS, and CDPH conducted PPS.

C. auris Epidemiology First Half of 2024 (January-June)

The following graph shows *C. auris* cases grouped by month of specimen collection from January to June of 2024. During this period, 124 clinical and 253 screening cases were identified. Clinical cases remained steady, while screening cases decreased despite increased screening efforts. The Chicago Department of Public Health (CDPH) conducts PPS at facilities with a higher burden of *C. auris* and reviews infection prevention and control (IPC) practices to identify areas for improvement and provide support. This includes the use of transmission-based precautions, increasing access to alcohol-based hand rub and

personal protective equipment, improving hand hygiene compliance, and adherence to the cleaning and disinfection of patient environment and shared equipment.

Figure 2. Chicago *C. auris* Cases (n=377) by specimen collection month and specimen type[1], January 1 – June 30, 2024[2]



[1]*Colonized (screening) to clinical cases (n=46) are counted twice: once as a screening case and once as a clinical case at the time of specimen collection*
[2]*Data are provisional as of 7/18/24*
Data Source: Combined de-duplicated IL XDRO Registry, INEDSS, and CDPH conducted PPS.

Patients residing in ventilator-capable skilled nursing facilities (vSNFs) and long-term acute-care hospitals (LTACHs) are at increased risk of acquiring *C. auris* and other multidrug-resistant organisms due to multiple factors including serious underlying medical conditions, long healthcare facility stays, indwelling medical devices (including tracheostomies, feeding tubes, and central venous catheters), frequent healthcare worker contact, and prolonged, broad-spectrum antibiotic exposure. *C. auris* persistently colonizes patients and contaminates the healthcare environment, allowing for easy transmission within a facility. Table 1 summarizes the prevalence of *C. auris* in different healthcare setting types across the city at select points in time in the first half of 2024.

Table 1. *C. auris* prevalence[1] by facility type from CDPH conducted point prevalence surveys[2], Chicago, IL, January 1—June 30, 2024

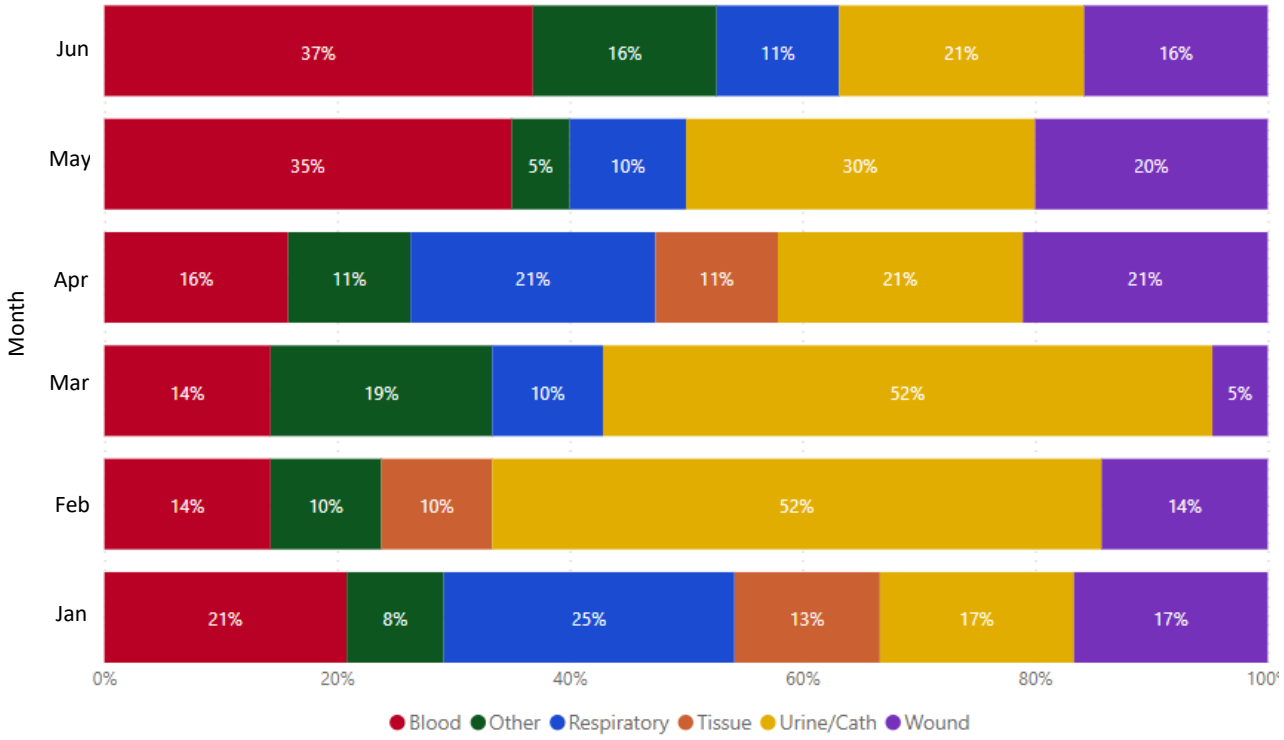
Facility type	Number of facilities	Number of surveys	Median Prevalence	Range of Prevalence
vSNF (vent floor only)	2	2	56.2%	39.3-73.1%
LTACH	3	4	46.9%	32.1-63.3%
ACH (mostly ICUs)	2	12	27.9%	2.9-66.7%[3]
SNF	5	10	3.5%	1.6-13.2%

[1]Prevalence is calculated as total number of positives (previously known positives + new positives) over the census
[2]CDPH routinely conducts point prevalence surveys at vSNFs and LTACHs and only does PPS in ACH and SNF when there is newly identified positive case
[3]CDPH was conducting regular PPS at two ACH in response to outbreaks.
Data Source: Point Prevalence Surveys Conducted by CDPH
Abbreviation: N, number of; vSNF, ventilator-capable skilled nursing facility; LTACH, long-term acute-care hospital; ACH, acute care hospital; ICU, intensive care unit; SNF, skilled nursing facility

It is noteworthy that an increasing number of skilled nursing facilities (SNFs) are being associated with cases of *C auris* among their residents. During the first half of 2024, CDPH conducted PPS at 5 SNFs in response to newly identified *C auris* cases among their residents, an increase from 4 SNFs for the entire year of 2023. These PPS were conducted in response to single cases in SNFs. Despite low prevalence at most of the SNFs surveyed, the introduction of *C. auris* could result in further spread to the environment and eventually, to residents. CDPH is committed to closely monitoring and providing support and education to healthcare facilities that identify *C. auris* cases to mitigate spread. The high prevalence noted in acute care facilities was associated with surveillance screening in response to outbreaks at two facilities, and therefore should not be generalized to represent Chicago acute care facilities.

Among clinical cases with available demographic information (n=124), the median age was 64 years old and 60% were male. *C. auris* has been identified from many body sites including blood, urine, respiratory tract, tissue, and wounds. Figure 3 summarizes the specimen sources from which *C. auris* was identified in clinical cases. Respiratory specimens are considered clinical because they are collected during the course of care. However, respiratory specimens likely represent colonization and may have been collected as screening specimens by some healthcare facilities. In addition urinary specimens may represent colonization or infection; interpretation of clinical cultures requires assessment of patient signs and symptoms.

Figure 3. Percent of Chicago clinical *C. auris* cases (n=124) by specimen source and month of specimen collection, January 1 – June 30, 2024[1]



[1]*Data are provisional as of 7/18/24*
Data Source: Combined de-duplicated IL XDRO Registry, INEDSS, and CDPH conducted PPS.

Blood and **urine** are the most common sources of *C. auris* clinical isolates

Risk Factors for *C. auris*
- Chronic illness
- Medical devices
- Long stays in healthcare
- Antibiotic exposure

vSNFs and **LTACHs** have the highest prevalence of *C. auris* (>40%)

CDPH provides guidance and conducts on-site assessments to evaluate and recommend processes to improve:

- Adherence to hand hygiene.
- Appropriate use of Transmission-Based Precautions based on setting.
- Cleaning and disinfecting the patient care environment (daily and terminal cleaning) and reusable equipment with recommended products, including focus on shared mobile equipment (e.g., glucometers, blood pressure cuffs) with sporicidal EPA List K agent.
- Communication about patient's *C. auris* status when patient is transferred.
    - During the process of inter-facility communication (i.e. communication with another facility), staff should only communicate that a patient is infected or colonized with *C. auris* if there is **documented** identification of *C. auris* based on current or past laboratory testing.
    - Facilities should be able to confirm a patient's past *C. auris* infection or colonization history by querying the XDRO registry
- Screening contacts of newly identified case patients to identify *C. auris* colonization.
- Laboratory surveillance of clinical specimens to detect additional cases.

For additional information see: Chicago Department of Public Health - Health Alert Network: https://www.chicagohan.org/programs/hai