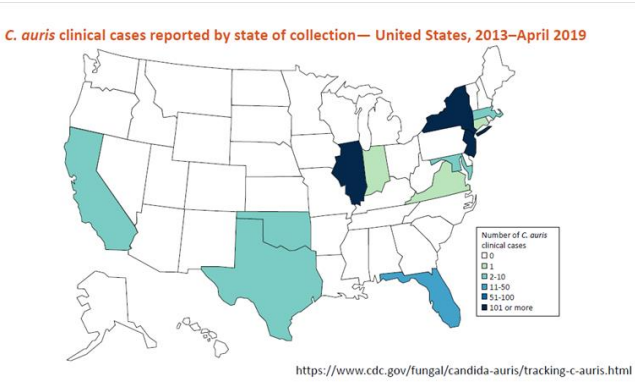
EPI GRAM May, 2019

A Monthly Publication of the Stark Public Health Infrastructure Coalition

EPI Gram *is a monthly publication of the Stark County Public Health Infrastructure Coalition. It contains a summary of provisional communicable disease reports and other key public health indicators, with summary tables for Stark County, Ohio. Some reportable conditions may be under investigation and, at any given time, data may fluctuate from month to month for a specific category.* ***If you have any questions please contact Avinash Joseph at 330.493.9914 or josepha@starkhealth.org, or Amanda Archer at 330.489.3327 or aarcher@cantonhealth.org.***

Monthly Highlight: *Candida auris* – Our Next New Reportable

Although the official update to Ohio's list of reportable diseases has not been released (as of 6/24/2019), it is known that *Candida auris* will be added any day now. Ohio's list of reportable diseases include those that are required to be reported to local public health due to the severity of the disease and/or the potential for epidemic spread. *C. auris* is no exception.



A yeast that was first reported in Japan in 2009, *C. auris* has already been identified in healthcare facilities in over 30 countries and has been causing severe illness in hospitalized patients. The yeast thrives on the skin, is often multi-drug resistant and spreads easily in healthcare settings due to its persistence in the environment (survival > 1 month). Two pan-resistant strains were found in 2019 in NY and it's reported that 33% of all infections are resitant to one of the three front line anti-fungal medications. The yeast can colonize on the skin, and, in some patients, enter the bloodstream and spread throughout the body, causing serious invasive infections. Candidemia, or the presence of a Candida species in the bloodstream, remains the fourth most common cause of nosocomial bloodstream infections.

Although the yeast is not a threat to the general public or healthy persons, high risk individuals include patients who have been hospitalized in a healthcare facility for a long time, have a central venous catheter, or other lines or tubes entering their body (tracheostomies, ventilator dependent, etc), are colonzed with other multi-drug resistant organisms, or who have previously received antibiotics or antifungal medications. *C. auris* has a higher prevalence in nursing homes with ventilator beds (7.7%) versus regular nursing homes (0.7%). Also, receiving medical care abroad is a risk factor for *C. auris* (although most cases in the US now don't have direct links to healthcare abroad and are due to local transmission). The organism can be identified weeks to two years after hospitalization in a country. Four international clades have been identified (African clade, South Asian clade, East Asian clade & South American), and all four have been identified in the United States, with continued local transmission.

An additional challenge in the response to *C.* auris is that specialized laboratory methods are needed to accurately identify *C. auris*. Conventional laboratory techniques could lead to misidentification and inappropriate management, making it difficult to control the spread of *C. auris* in healthcare settings.

Although there are no known decolonization strategies, prevention strategies include taking it back to the basics:

1) Good, consistent hand hygiene (alcohol-based hand rub preferred over soap and water except when hands are visibly soiled)
2) Personal protective equipement and contact precautions (gown and gloves)
3) Environmental cleaning and disinfection (product must be active against *C.difficile* spores, focus on high-touch areas, shared medical equipment).

For more information: https://www.cdc.gov/fungal/candida-auris/index.html

Table 1 Summary of Air Quality Index, Pollen, and Mold Counts for Stark County, Ohio, including historical data.

	May 2019				June 2018			
	Monthly High	Monthly Low	Monthly Median	Counts in highest reported health risk category	Monthly High	Monthly Low	Monthly Median	Counts in highest reported health risk category
Pollen Count	1370	20	220	N/A	116	0	16	N/A
Mold Count	4660	720	1440	Low	5200	0	3510	Low
Air Quality Index	90	29	51	12 Moderate	84	28	46	7 Moderate

**See the following websites for updated Air Quality Index and mold index terminology and color coding: http://www.airnow.gov/index.cfm?action=aqibasics.aqi https://pollen.aaaai.org/nab/index.cfm?p=reading_charts. Data source for this table is the Air Quality Division of the Canton City Health Department.

Table 2 Select Vital Statistics for Stark County

	Jan 2019	YTD 2019	2018
Live Births	339	1694	4052*
Births to Teens	22	118	230*
Deaths	318	1844	4230*

* Birth and death data is preliminary

Table 3 Stark County Crude Birth Rate and Death Rates

	2014	2015	2016	2017	2018*
Birth	11.3	11.2	11.3	10.7	10.9
Death	11.4	11.6	11.7	11.9	11.4

*Source: Ohio Department of Health Data Warehouse. Rates are per 1,000 population. 2018 data is preliminary.

Table 4: Jurisdictional Summary of Reportable Diseases in Stark County, OH (Provisional Data) (Provisional Data)	Alliance City		Canton City		Massillon City		Stark County		All Departments	
	May	YTD	May	YTD	May	YTD	May	YTD	May	YTD
Campylobacteriosis	0	0	0	5	0	2	5	23	5	30
Chlamydia infection	11	64	59	347	15	68	50	275	135	754
CP-CRE	0	0	1	3	0	2	0	4	1	9
Creutzfeldt-Jakob Disease	0	0	0	0	0	0	0	2	0	2
Cryptosporidiosis	0	1	0	1	0	0	1	8	1	10
Cyclosporiasis	0	0	0	0	0	0	1	1	1	1
E. coli, Shiga Toxin-Producing	0	x0	1	1	0	2	0	3	1	6
Giardiasis	0	0	0	2	0	1	1	6	1	9
Gonococcal infection	2	11	23	147	4	28	12	61	41	247
Haemophilus influenzae (invasive disease)	0	0	0	1	0	0	0	1	0	2
Hepatitis A	1	1	0	1	0	2	2	4	3	8
Hepatitis B - Perinatal Infection	0	0	0	0	0	0	0	1	0	1
Hepatitis B - acute	0	0	0	1	0	0	0	0	0	1
Hepatitis B - chronic	1	1	2	12	1	3	2	17	6	33
Hepatitis C - acute	1	1	0	1	1	1	0	0	2	3
Hepatitis C - chronic	3	11	9	57	3	15	11	66	26	149
Hepatitis E	0	0	0	0	0	0	0	1	0	1
Immigrant Investigation	0	0	0	0	0	0	0	2	0	2
Influenza-associated hospitalization	0	15	1	114	0	32	1	248	2	409
Legionellosis - Legionnaires' Disease	0	0	0	1	0	2	1	3	1	6
Listeriosis	0	0	0	0	0	0	0	1	0	1
Lyme Disease	0	0	0	0	0	0	3	6	3	6
Meningitis - aseptic/viral	0	0	1	1	0	2	0	0	1	3
Mumps	0	0	0	0	0	0	0	1	0	1
Pertussis	0	2	0	7	0	2	0	10	0	21
Salmonellosis	0	0	1	2	1	1	0	6	2	9
Shigellosis	0	0	1	3	0	0	15	18	16	21
Streptococcal - Group A -invasive	0	0	1	2	0	1	1	7	2	10
Streptococcal - Group B - in newborn	0	0	0	0	0	0	0	1	0	1
Streptococcus pneumoniae – inv.antibiotic resistance unknown or non-resistant	0	1	0	2	0	0	0	7	0	10
Streptococcus pneumoniae – inv. antibiotic resistant/intermediate	1	2	0	1	0	1	1	3	2	7
Syphilis, Total	0	1	3	6	0	0	2	7	5	14
➢ Syphilis, Primary, Secondary and Early Latent	0	1	2	5	0	0	2	7	4	13
Tuberculosis	0	0	0	1	0	0	0	0	0	1
Varicella	0	0	0	6	0	1	0	8	0	15
Vibriosis (not cholera)	0	0	0	0	0	1	0	0	0	1
Yersiniosis	0	0	0	0	0	0	1	2	1	2
Total	20	112	105	730	25	167	112	810	262	1819

Source: Ohio Disease Reporting System, downloaded 06/10/2019

Table 5 – Summary Table of Diseases Reported in the Previous 5 years within Stark County (Provisional Data)	May-19	May-18	YTD 2019	YTD 2018	All of 2018	5 Yr Annual Average	Rate
Amebiasis	**0**	**0**	**0**	**0**	**0**	**0.4**	**0.107**
Anaplasmosis	**0**	**0**	**0**	**0**	**2**	**0.6**	**0.161**
Babesiosis	**0**	**1**	**0**	**2**	**2**	**0.8**	**0.214**
Brucellosis	**0**	**0**	**0**	**0**	**0**	**0.2**	**0.054**
Campylobacteriosis	**5**	**4**	**30**	**21**	**85**	**77.6**	**20.761**
Chlamydia	**135**	**172**	**754**	**743**	**1712**	**1720.0**	**460.169**
CP-CRE	**1**	**0**	**9**	**3**	**26**	**24.0**	**6.421**
Coccidioidomycosis	**0**	**0**	**0**	**0**	**0**	**0.4**	**0.107**
Creutzfeldt-Jakob Disease	**0**	**0**	**2**	**0**	**1**	**1.2**	**0.321**
Cryptosporidiosis	**1**	**0**	**10**	**8**	**33**	**33.8**	**9.043**
Cyclosporiasis	**1**	**0**	**1**	**0**	**8**	**3.0**	**0.803**
E. coli, Shiga Toxin-Producing	**1**	**1**	**6**	**4**	**17**	**14.0**	**3.746**
Giardiasis	**1**	**1**	**9**	**7**	**23**	**21.8**	**5.832**
Gonorrhea	**41**	**39**	**247**	**227**	**642**	**580.2**	**155.227**
Haemophilus influenzae , Invasive	**0**	**0**	**2**	**2**	**4**	**6.4**	**1.712**
Hemolytic Uremic Syndrome (HUS)	**0**	**0**	**0**	**0**	**0**	**0.2**	**0.054**
Hepatitis A	**3**	**0**	**8**	**2**	**11**	**7.6**	**2.033**
Hepatitis B, Perinatal	**0**	**0**	**1**	**0**	**1**	**1.8**	**0.482**
Hepatitis B, Acute	**0**	**1**	**1**	**4**	**11**	**6.4**	**1.712**
Hepatitis B, Chronic	**6**	**5**	**33**	**30**	**84**	**57.6**	**15.410**
Hepatitis C, Acute	**2**	**0**	**3**	**3**	**7**	**6.2**	**1.659**
Hepatitis C, Chronic	**26**	**27**	**149**	**129**	**302**	**313.0**	**83.740**
Hepatitis C - Perinatal Infection	**0**	**0**	**0**	**0**	**4**	**4.0**	**1.070**
Hepatitis E	**0**	**0**	**1**	**0**	**0**	**0.2**	**0.054**
Influenza-associated hospitalization	**2**	**9**	**409**	**580**	**595**	**379.0**	**101.398**
LaCrosse virus disease	**0**	**0**	**0**	**0**	**4**	**1.0**	**0.268**
Legionellosis	**1**	**3**	**6**	**6**	**33**	**18.0**	**4.816**
Listeriosis	**0**	**0**	**1**	**0**	**1**	**1.0**	**0.268**
Lyme Disease	**3**	**0**	**6**	**6**	**38**	**24.0**	**6.421**
Malaria	**0**	**0**	**0**	**0**	**0**	**0.4**	**0.107**
Measles (indigenous to Ohio)	**0**	**0**	**0**	**0**	**0**	**2.0**	**0.535**
Meningitis, Aseptic	**1**	**2**	**3**	**15**	**46**	**34.6**	**9.257**
Meningitis, Other Bacterial	**0**	**0**	**0**	**1**	**4**	**3.4**	**0.910**
Meningococcal Disease	**0**	**0**	**0**	**0**	**0**	**1.0**	**0.268**
Mumps	**0**	**0**	**1**	**1**	**2**	**3.2**	**0.856**
Pertussis	**0**	**2**	**21**	**21**	**54**	**50.4**	**13.484**
Q fever, chronic	**0**	**0**	**0**	**0**	**0**	**0.2**	**0.054**
Salmonellosis	**2**	**3**	**9**	**19**	**61**	**47.8**	**12.788**
Shigellosis	**16**	**0**	**21**	**20**	**25**	**26.2**	**7.010**
Spotted Fever Rickettsiosis	**0**	**0**	**0**	**1**	**5**	**2.2**	**0.589**
Staphylococcal aureus - intermediate resistance to vancomycin	**0**	**0**	**0**	**0**	**0**	**0.2**	**0.054**
Streptococcal Dis, Group A, Invasive	**2**	**3**	**10**	**17**	**25**	**15.2**	**4.067**
Streptococcal Dis, Group B, in Newborn	**0**	**0**	**1**	**0**	**2**	**1.6**	**0.428**
Streptococcal Toxic Shock Syndrome	**0**	**0**	**0**	**0**	**0**	**0.8**	**0.214**
Streptococcus pneumoniae - inv antibiotic resistance unknown or non-resistant	**0**	**4**	**10**	**18**	**29**	**30.6**	**8.187**
Streptococcus pneumo - inv antibiotic resistant/intermediate	**2**	**1**	**7**	**4**	**10**	**13.4**	**3.585**
Syphilis, Total	**5**	**2**	**14**	**11**	**33**	**19.4**	**5.190**
Syphilis, Primary, Secondary and Early Latent	**4**	**0**	**13**	**6**	**20**	**11.8**	**3.157**
Toxic Shock Syndrome (TSS)	**0**	**0**	**0**	**0**	**0**	**0.2**	**0.054**
Tuberculosis	**0**	**0**	**1**	**0**	**5**	**2.4**	**0.642**
Varicella	**0**	**0**	**15**	**6**	**16**	**24.2**	**6.474**
Vibriosis - other (not cholera)	**0**	**0**	**1**	**0**	**1**	**2.2**	**0.589**
Vibrio parahaemolyticus infection	**0**	**0**	**0**	**0**	**0**	**0.0**	**0.000**
West Nile Virus	**0**	**0**	**0**	**0**	**8**	**2.2**	**0.589**
Yersiniosis	**1**	**0**	**2**	**1**	**3**	**6.4**	**1.712**
Zika virus infection	**0**	**0**	**0**	**0**	**0**	**1.0**	**0.268**

Source: Ohio Disease Reporting System, downloaded 6/10/2019. Rates are per 100K population and based on 5 yr average incidence '14 – '18.