EPI GRAM September, 2019

A Monthly Publication of the Stark Public Health Infrastructure Coalition

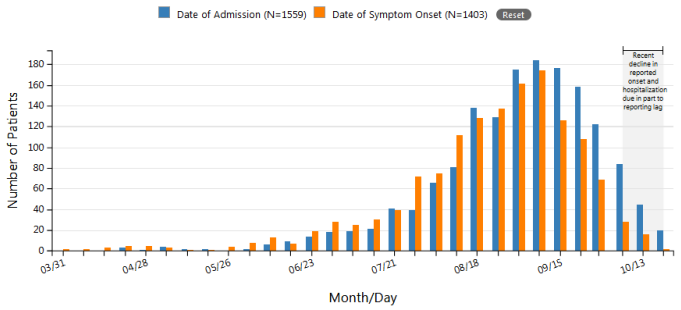
EPI Gram *is a monthly publication of the Stark County Public Health Infrastructure Coalition. It contains a summary of provisional communicable disease reports and other key public health indicators, with summary tables for Stark County, Ohio. Some reportable conditions may be under investigation and, 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.***

Public Health
Prevent. Promote. Protect.

Monthly Highlight: Outbreak of Lung Injury Associated with the Use of E-Cigarette/Vaping Products

As of October 29, 2019, 1,888 cases of e-cigarette, or vaping, product use associated lung injury (EVALI) have been reported to CDC from 49 states (all except Alaska), the District of Columbia, and 1 U.S. territory. Thirty-seven deaths have been confirmed in 24 states (none in Ohio). The median age of deceased patients was 53 years and ranged from 17 to 75 years. Of the cases with data, 70% are male, median age is 24 years old (range: 13 to 75), with 79% being under 35 years. Of 867 cases with information available, nearly 86% reported using THC-containing products; 34% reported exclusive use of THC-containing products; 64% reported using nicotine-containing products; and 11% reported exclusive use of nicotine-containing products. Peak illness onset and hospital admissions were seen in September 2019. In Ohio, as of November 5th, 51 cases have been reported, along with 38 additional illness reports still under investigation. The median age is 21 years (range 15-65), 70% male, 90% hospitalized and zero deaths. Twenty one counties have reported cases. As of 10/05/2019, no cases from Stark County have been identified/reported.

Dates of symptom onset and hospital admission for patients with lung injury associated with e-cigarette use, or vaping — United States, March 31–October 26, 2019



The Ohio Department of Health (ODH) issued a health alert to healthcare providers asking them to report all suspected cases of serious pulmonary illness where the cause is unclear and includes a history of vaping to local or state public health officials for investigation. This alert was initially released in August, and updated in September to include an ODH Director's Entry Journal requiring health care providers or any individual having knowledge, to report to their local health department (LHD) by the end of the next business day, all suspected cases of severe pulmonary disease of unclear etiology with a history of vaping in the past 90 days. Once reported, local health departments (LHD) will work with healthcare providers to complete the Clinician Report Form and obtain medical records, if necessary. LHDs will also work to interview the suspected case patient to obtain information about potential exposures related to vaping devices and products, using the ODH CDC Patient Interview Form (2019 Lung Injury Response).

According to the CDC, patient respiratory symptoms have included cough, shortness of breath, and fatigue. In some cases, symptoms worsened over a period of days or weeks and required hospitalization. Other symptoms reported by some patients included fever, chest pain, weight loss, nausea, and diarrhea. Chest radiographs show bilateral opacities, typically in the lower lobes and CT imaging of the chest shows diffuse ground glass opacities, often with subpleural sparing. Evaluation for infectious etiologies were negative in all patients. Some patients had progressive respiratory compromise requiring endotracheal intubation but subsequently improved with systemic steroids. More information can be found: Outbreak of Lung Injury Associated with the Use of E-Cigarette, or Vaping, Products

This complex investigation spans almost all states, involves over a thousand patients, and a wide variety of brands and substances and e-cigarette, or vaping, products. Case counts continue to increase and new cases are being reported, which makes it more difficult to determine the cause or causes of this outbreak. CDC recommends that you do not use e-cigarette, or vaping, products that contain THC. Additional prevention recommendations can be found here: Prevention.

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

	Sept 2019				October 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	110	2	21.5	N/A	9	0	0	N/A
Mold Count	6500	1830	3390	1 (Moderate)	9000	0	0	3 (Moderate)
Air Quality Index	74	35	72.5	6 (Moderate)	58	21	32	5 (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 Canton City Public Health

Table 2 Select Vital Statistics for Stark County

	Sept 2019	YTD 2019	2018
Live Births	308	3113	4060
Births to Teens	23	203	230
Deaths	303	3174	4230*

* Death data are 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 death data are preliminary.

Table 4: Jurisdictional Summary of Reportable Diseases in Stark County, OH (Provisional Data)	Alliance City		Canton City		Massillon City		Stark County		All Departments	
	Sept	YTD	Sept	YTD	Sept	YTD	Sept	YTD	Sept	YTD
Campylobacteriosis	0	0	3	14	0	4	6	54	9	72
Chlamydia infection	8	109	71	618	22	142	47	527	148	1396
CP-CRE	0	0	0	3	0	4	0	8	0	15
Creutzfeldt-Jakob Disease	0	0	0	0	0	0	0	2	0	2
Cryptosporidiosis	0	3	0	3	0	0	8	33	8	39
Cyclosporiasis	0	0	0	1	0	0	0	3	0	4
E. coli, Shiga Toxin-Producing	0	0	0	3	1	3	2	6	3	12
Giardiasis	0	0	1	4	0	2	2	9	3	15
Gonococcal infection	1	23	32	244	4	44	8	116	45	427
Haemophilus influenzae (invasive disease)	0	0	0	1	0	0	1	3	1	4
Hemolytic uremic syndrome (HUS)	0	0	0	0	0	0	0	1	0	1
Hepatitis A	0	2	1	2	0	3	0	8	1	15
Hepatitis B - Perinatal Infection	0	0	0	0	0	0	0	1	0	1
Hepatitis B (including delta) - acute	0	1	0	3	0	2	0	0	0	6
Hepatitis B (including delta) - chronic	1	3	3	17	0	4	4	31	8	55
Hepatitis C - acute	0	0	0	1	0	1	0	0	0	2
Hepatitis C - chronic	6	27	9	89	5	34	11	113	31	263
Hepatitis C - Perinatal Infection	0	0	0	0	0	0	0	2	0	2
Hepatitis E	0	0	0	1	0	0	0	1	0	2
Immigrant Investigation	0	0	0	0	0	0	1	4	1	4
Influenza - ODH Lab Results	0	0	0	0	0	0	1	1	1	1
Influenza-associated hospitalization	1	16	0	116	0	32	1	250	2	414
Legionellosis - Legionnaires' Disease	0	1	1	7	1	3	1	7	3	18
Listeriosis	0	0	0	0	0	0	0	2	0	2
Lyme Disease	0	1	0	2	0	1	0	37	0	41
Measles - imported from outside Ohio	0	0	0	0	0	0	0	1	0	1
Meningitis - aseptic/viral	0	2	1	3	0	3	2	4	3	12
Meningitis - bacterial (Not N. meningitidis)	0	0	0	0	0	0	0	1	0	1
Mumps	0	0	0	0	0	0	0	1	0	1
Pertussis	0	2	0	10	2	4	1	21	3	37
Salmonellosis	0	1	1	4	2	6	3	23	6	34
Shigellosis	0	0	0	3	0	0	1	19	1	22
Streptococcal - Group A -invasive	0	0	0	2	0	1	1	9	1	12
Streptococcal - Group B - in newborn	0	0	0	0	0	0	0	1	0	1
Streptococcus pneumoniae - invasive antibiotic resistance unknown or non-resistant	0	1	1	4	0	0	0	12	1	17
Streptococcus pneumoniae - invasive antibiotic resistant/intermediate	0	2	0	1	0	2	0	3	0	8
Syphilis, Total	0	2	1	14	0	1	2	10	3	27
Syphilis, Primary, Secondary and Early Latent	0	2	1	7	0	1	2	9	3	19
Tuberculosis	0	0	0	1	0	0	0	1	0	2
Varicella	0	0	1	7	0	2	2	10	3	19
Vibriosis (not cholera)	0	0	0	0	0	1	0	2	0	3
Yersiniosis	0	0	0	0	0	0	0	3	0	3
Total	17	198	127	1185	37	300	107	1349	288	3032

Source: Ohio Disease Reporting System, downloaded 11/05/2019

Table 5 – Summary Table of Diseases Reported in the Previous 5 years within Stark County (Provisional Data)	Sep-19	Sep-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	2	2	0.6	0.161
Babesiosis	0	0	0	2	2	0.8	0.214
Brucellosis	0	0	0	0	0	0.2	0.054
Campylobacteriosis	9	6	72	65	85	77.6	20.761
Chlamydia	148	144	1396	1266	1712	1720.0	460.169
CP-CRE	0	4	15	17	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	8	3	39	27	33	33.8	9.043
Cyclosporiasis	0	0	4	8	8	3.0	0.803
E. coli, Shiga Toxin-Producing	3	1	12	13	17	14.0	3.746
Giardiasis	3	0	15	16	23	21.8	5.832
Gonorrhea	45	65	427	454	641	580.2	155.227
Haemophilus influenzae , Invasive	1	0	4	3	4	6.4	1.712
Hemolytic Uremic Syndrome (HUS)	0	0	1	0	0	0.2	0.054
Hepatitis A	1	3	15	9	12	7.6	2.033
Hepatitis B, Perinatal	0	0	1	0	1	1.8	0.482
Hepatitis B, Acute	0	2	6	9	11	6.4	1.712
Hepatitis B, Chronic	8	3	55	64	85	57.6	15.410
Hepatitis C, Acute	0	0	2	6	7	6.2	1.659
Hepatitis C, Chronic	31	21	263	238	300	313.0	83.740
Hepatitis C - Perinatal Infection	0	1	2	3	4	4.0	1.070
Hepatitis E	0	0	2	0	0	0.2	0.054
Influenza-associated hospitalization	2	2	414	582	595	379.0	101.398
LaCrosse virus disease	0	1	0	4	4	1.0	0.268
Legionellosis	3	5	18	22	33	18.0	4.816
Listeriosis	0	0	2	1	1	1.0	0.268
Lyme Disease	0	1	41	32	38	24.0	6.421
Malaria	0	0	0	0	0	0.4	0.107
Measles - imported from outside Ohio	0	0	1	0	0	0.0	0.000
Measles (indigenous to Ohio)	0	0	0	0	0	2.0	0.535
Measles - indigenous/imported Status Not Determined	0	0	0	0	0	0.0	0.000
Meningitis, Aseptic	3	3	12	34	46	34.6	9.257
Meningitis, Other Bacterial	0	1	1	4	4	3.4	0.910
Meningococcal Disease	0	0	0	0	0	1.0	0.268
Mumps	0	0	1	2	2	3.2	0.856
Pertussis	3	5	37	38	54	50.4	13.484
Q fever, chronic	0	0	0	0	0	0.2	0.054
Salmonellosis	6	9	34	45	61	47.8	12.788
Shigellosis	1	0	22	24	25	26.2	7.010
Spotted Fever Rickettsiosis	0	2	0	5	5	2.2	0.589
Staphylococcal aureus - intermediate resistance to vancomycin (VISA)	0	0	0	0	0	0.2	0.054
Streptococcal Dis, Group A, Invasive	1	1	12	24	25	15.2	4.067
Streptococcal Dis, Group B, in Newborn	0	0	1	2	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	1	0	17	21	29	30.6	8.187
Streptococcus pneumo - inv antibiotic resistant/intermediate	0	0	8	5	10	13.4	3.585
Syphilis, Total	3	5	27	23	33	19.4	5.190
Syphilis, Primary, Secondary and Early Latent	3	4	19	13	20	11.8	3.157
Toxic Shock Syndrome (TSS)	0	0	0	0	0	0.2	0.054
Tuberculosis	0	0	2	1	5	2.4	0.642
Varicella	3	1	19	12	16	24.2	6.474
Vibriosis - other (not cholera)	0	0	3	0	1	2.2	0.589
Vibrio parahaemolyticus infection	0	0	0	0	0	0.0	0.000
West Nile Virus	0	7	0	8	8	2.2	0.589
Yersiniosis	0	1	3	2	3	6.4	1.712
Zika virus infection	0	0	0	0	0	1.0	0.268

Source: Ohio Disease Reporting System, downloaded 11/05/2019. Rates are per 100K population and based on 5 yr average incidence ’14 – ‘18.