A joint collaboration between Stark County Public Health Agencies:

Alliance City Health Department	Canton City Public Health
Massillon City Health Department	Stark County Health Department

Stark County, Ohio
April 22, 2020 Epi Report

Background from www.cdc.gov: Coronavirus disease 2019 (COVID-19) is a respiratory illness that can spread from person to person. The virus that causes COVID-19 is a novel coronavirus that was first identified during an investigation into an outbreak in Wuhan, China.
Priorities for testing may include:

1. *Hospitalized patients who have signs and symptoms compatible with COVID-19 in order to inform decisions related to infection control.*
2. *Other symptomatic individuals such as, older adults (age ≥ 65 years) and individuals with chronic medical conditions and/or an immunocompromised state that may put them at higher risk for poor outcomes (e.g., diabetes, heart disease, receiving immunosuppressive medications, chronic lung disease, chronic kidney disease).*
3. *Any persons including healthcare personnel, who within 14 days of symptom onset had close contact with a suspect or laboratory-confirmed COVID-19 patient, or who have a history of travel from affected geographic areas within 14 days of their symptom onset.*

A confirmed case or death *is defined by meeting confirmatory laboratory evidence for COVID-19.* ***A probable case or death*** *is defined by i) meeting clinical criteria AND epidemiologic evidence with no confirmatory laboratory testing performed for COVID-19; or ii) meeting presumptive laboratory evidence AND either clinical criteria OR epidemiologic evidence; or iii) meeting vital records criteria with no confirmatory laboratory testing performed for COVID19.*

All data contained is preliminary and is subject to change as more information is reported to Ohio Department of Health (ODH). Data presented in this document is based on data as of 4.22.2020. Cases from previous days are likely to change as more information is entered.

Counts and rates are based on date of illness onset. If onset date is unknown, the earliest known date is utilized. Any rates based on counts less than 10 are considered unreliable and caution should be exercised when interpreting. Due to testing restrictions, data may be skewed. Report compiled by Canton City Public Health.

Data is sourced from: coronavirus.ohio.gov, ODH data warehouse, and census.gov. "These data were provided by the Ohio Department of Health. The Department specifically disclaims responsibility for any analyses, interpretations or conclusions."

For questions regarding this report, please contact:

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Stark County Epi Situational Report - COVID-19
Table 1 as of: 04/22/2020 2:00PM

Next report scheduled: 4/24/2020

Cases Reported to Stark LHDs		
Data as of 04.22.2020 1400		
Positive/Confirmed	252	
Hospitalized	68	26.98%
ICU Admissions	20	7.94%
Deaths in Confirmed Cases	28	11.11%
Probable	11	
Deaths in Probable Cases	0	

Cases Reported to ODH*		
Data as of 04.22.2020 1400		
Positive/Confirmed	13609	
Hospitalized	2882	21.18%
ICU Admissions	880	6.47%
Deaths in Confirmed Cases	584	4.29%
Probable	508	
Deaths in Probable Cases	26	

Descriptive Statistics for Stark County Confirmed Cases

Gender	Confirmed Cases		Deaths
Male	95	37.7%	17
Female	156	61.9%	11
Unknown	1	0.4%	0
Total	252		28

Age Range (in Years)			
16	to	99	57.5
Min		*Max*	*Median*

Race	White	Black	Other	Unknown
Count	116	18	21	97
%	46%	7%	8%	38%

Ethnicity	Hispanic	Non-Hisp	Unknown
Count	2	100	150
%	1%	40%	60%

Illness Information for Stark County Confirmed Cases

Hospitalized		
Yes	68	27%
No	115	46%
Not reported	69	27%

Pre-existing Conditions		
Yes	160	63%
No	77	31%

If hospitalized, in ICU?		
Yes	20	29%
No	48	71%

Discharged from Hospital		
ICU	5	
Other	18	
Some cases may be discharged due to death.		

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Signs & Symptoms in Confirmed Stark County Cases
Graph 1

Abdominal Pain 8%
Chills 26%
Cough 45%
Diarrhea 14%
Fatigue 4%
Fever 55%
Headache 25%
Loss of smell/taste 6%
Muscle Aches 32%
Nausea 20%
Runny Nose 15%
Shortness of Breath 35%
Sore Throat 15%
Subjective Fever 40%
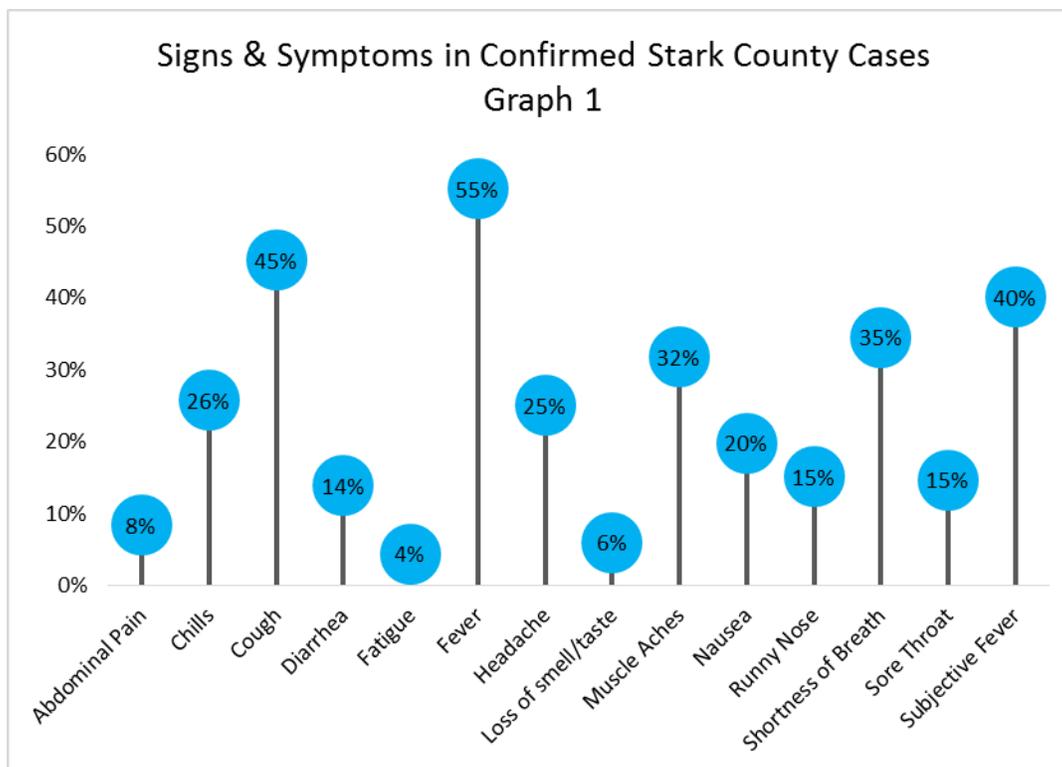
Graph 1 shows the incidence of signs and symptoms reported in confirmed cases of COVID-19 in Stark County. Two symptoms that are similar are subjective fever where in a patient felt feverish and fever in which is defined as a fever of >100.4F (38C). Additional symptoms may be added in the future as prevalence increases.

Signs/Symptoms Reported by Cases			
Table 2			
	Yes	No	% Yes
Abdominal Pain	21	104	8.3%
Chills	65	52	25.8%
Cough	114	31	45.2%
Diarrhea	35	90	13.9%
Fatigue	11	0	4.4%
Fever	139	42	55.2%
Headache	63	57	25.0%
Loss of smell/taste	15	0	6.0%
Muscle Aches	80	44	31.7%
Nausea	50	79	19.8%
Runny Nose	38	76	15.1%
Shortness of Breath	87	53	34.5%
Sore Throat	37	78	14.7%
Subjective Fever	101	38	40.1%

Table 2 is a count of known symptoms and number of cases in which those symptoms appear. Due to missing information, totals may not equal the total count of cases. Symptoms are listed in alphabetical order.

EpiCurve of Confirmed COVID-19 Cases in Stark County and Ohio by Illness Onset
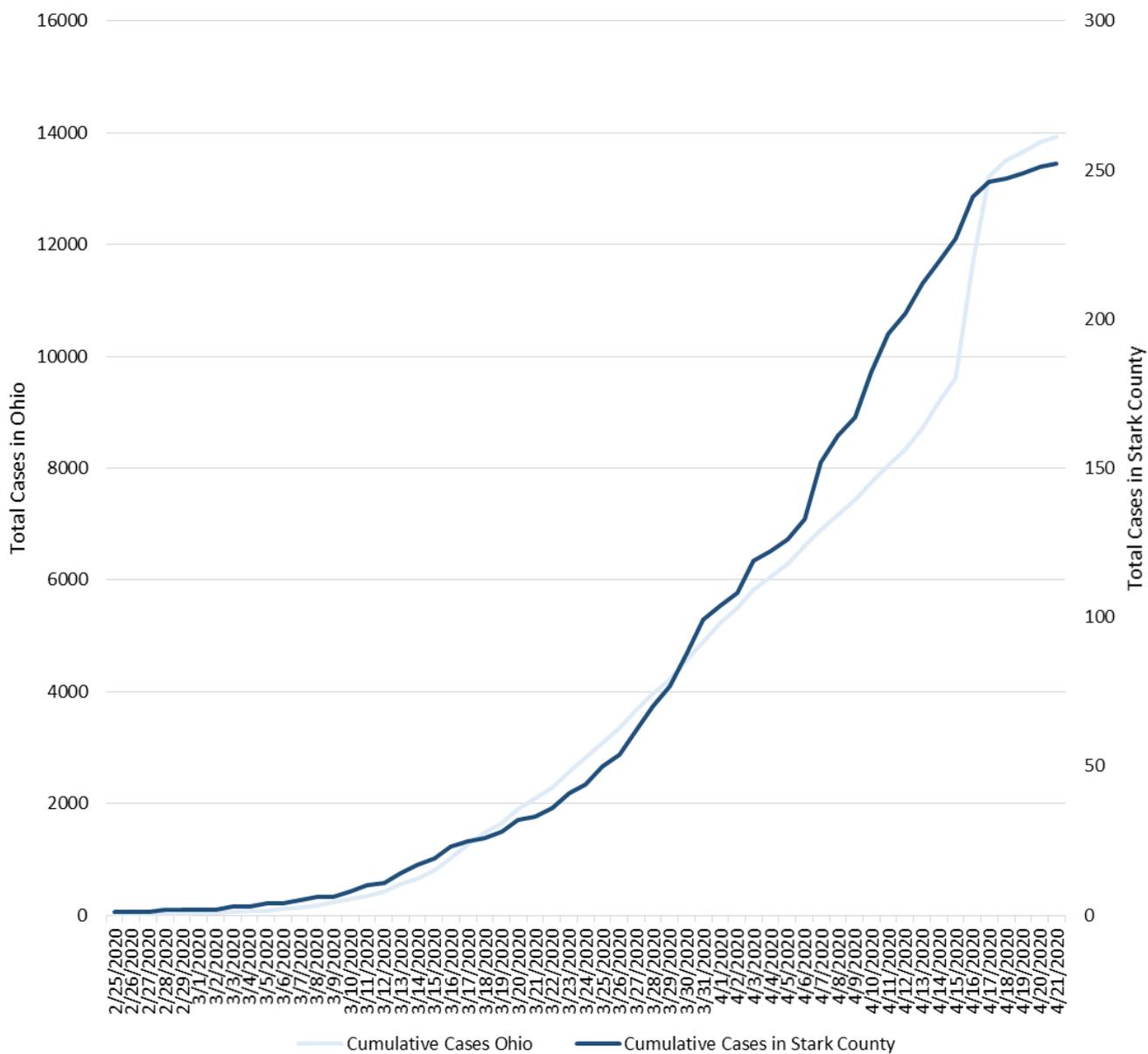### Graph 2
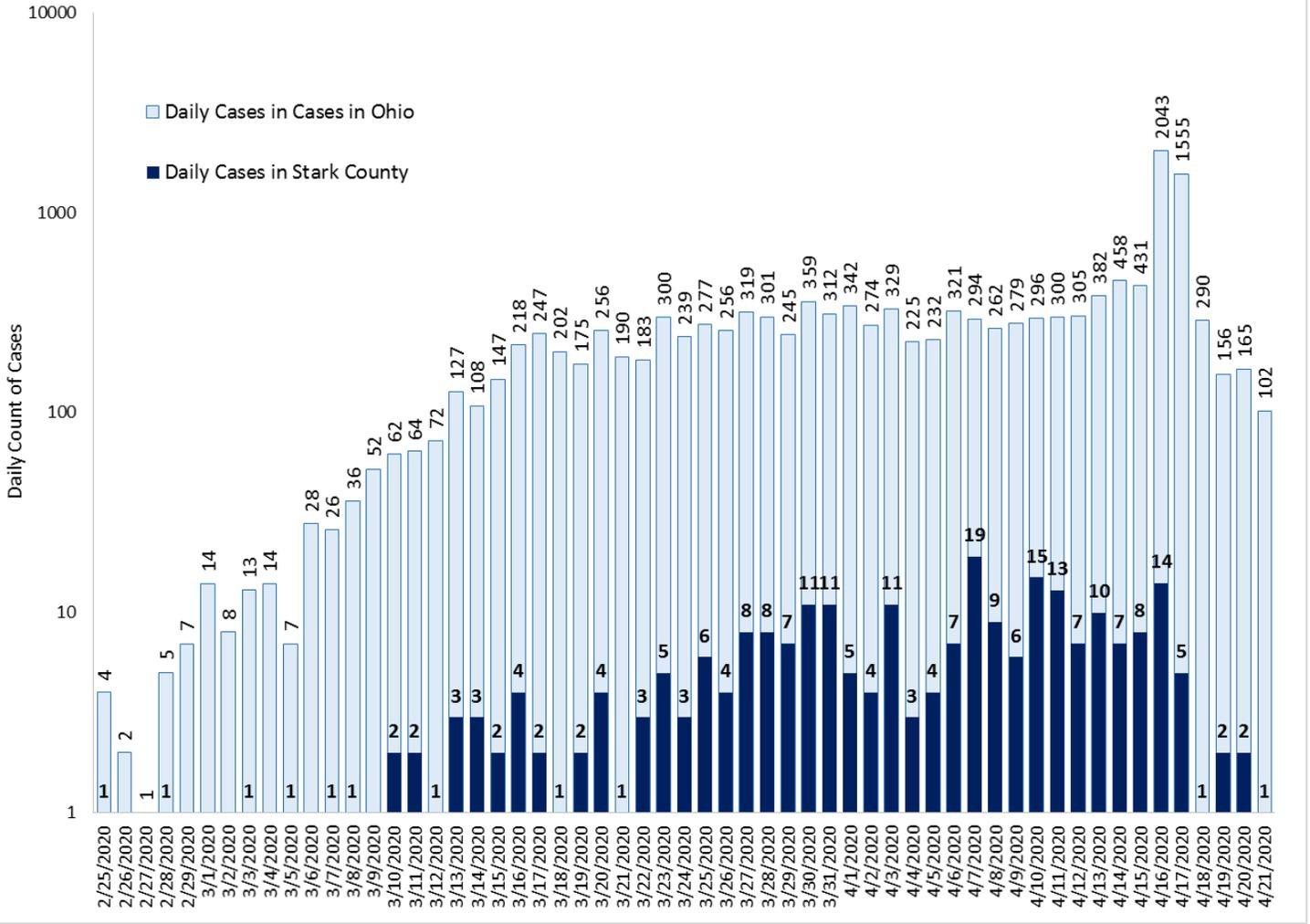
Graph 2 shows the EpiCurve which displays the total number of laboratory-confirmed cases per day, based on the illness onset date for Stark County and Ohio. If the illness onset date is not available, the earliest known date is utilized, which could include the date the specimen was collected, the date the test resulted or the date reported to the local health department. Counts will change as additional information is collected. Totals may not equal the totals on Table 1 depending on when data was accessed. Stark County's first confirmed case reported an illness onset date of 2/25/2020, while Ohio had cases prior to 2/25/2020, those are not included.

This graph has changed since the report released on 4/17/2020: *Due to a large increase in the number of reported cases in Ohio on 4/16 and 4/17, and to anticipate continued transmission and other large increases as facility clusters are identified, a logarithmic scale will be utilized to help visualize any skewness toward large values (daily case counts that are much larger than the bulk of the data).*

## Cumulative Total Confirmed Cases for Ohio and Stark County
Graph 3

Graph 3 shows the cumulative cases in Ohio (left side/primary axis) and Stark County (right side/secondary axis) by date. The timeline begins with 2/25/2020 due to this date being the earliest illness onset date reported by a laboratory-confirmed case in Stark County.

Total Number of Confirmed & Probable Cases by Age Group in Stark County
Graph 4
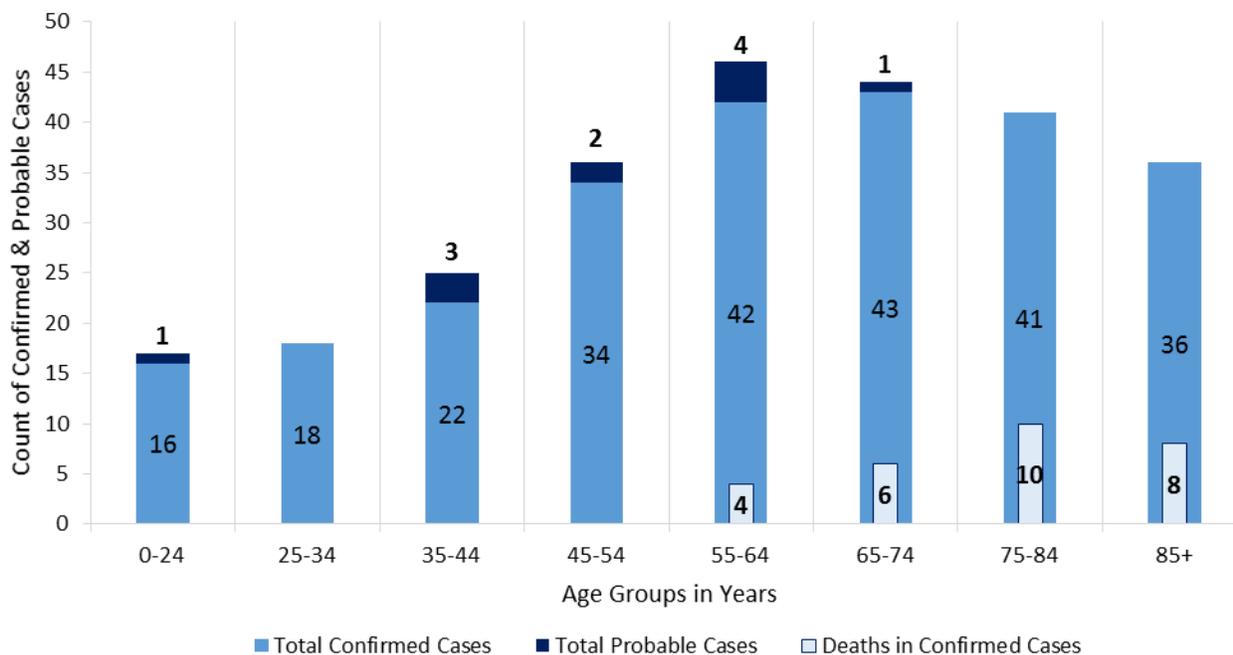
Graph 4 shows the total number of confirmed cases and deaths of confirmed cases by age group. Due to low numbers in Stark County, the age groups are different than what is reported on a state level. Age groups may be broken down further as new cases emerge. Deaths counted are based on only laboratory-confirmed cases and does not include probable cases.

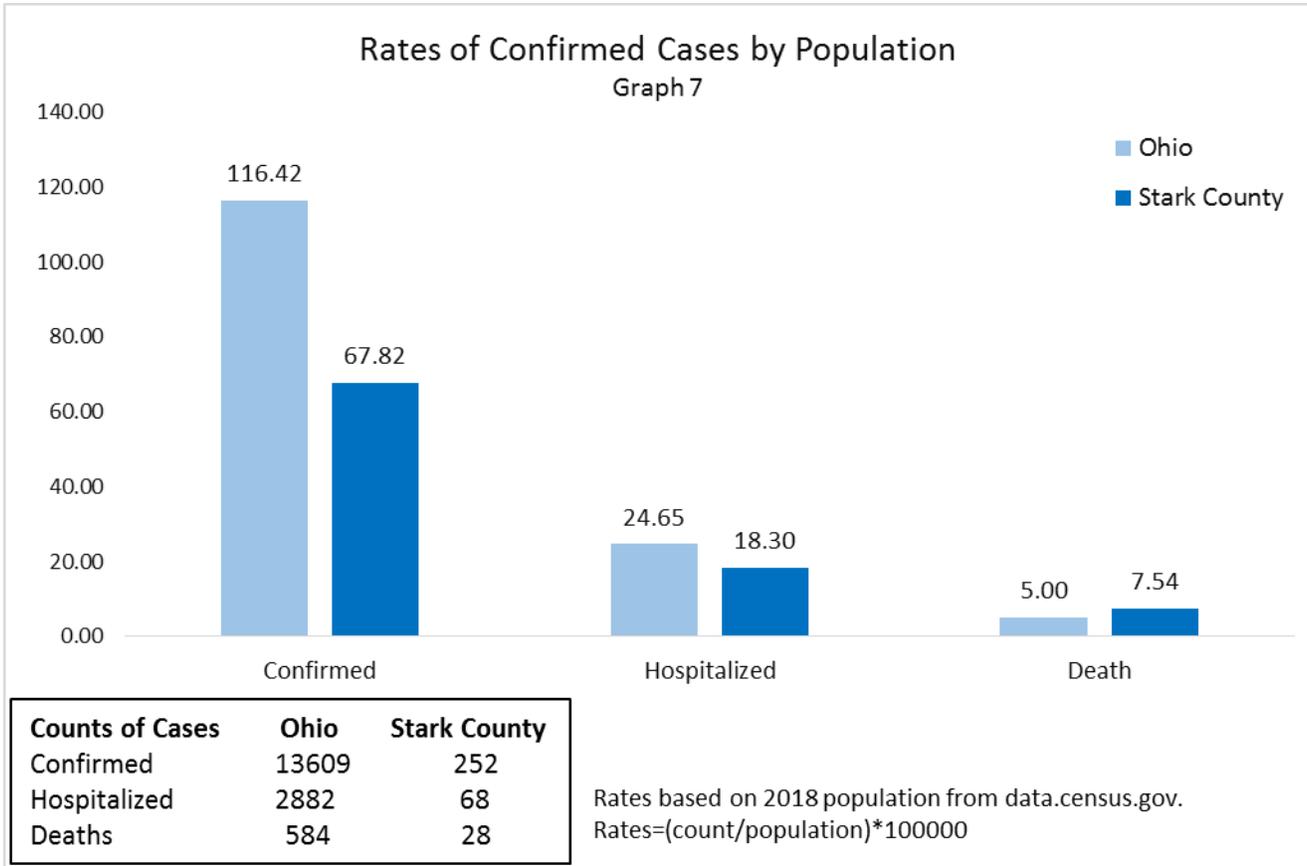## Rate of Confirmed and Probable Cases by Jurisdiction
Graph 5
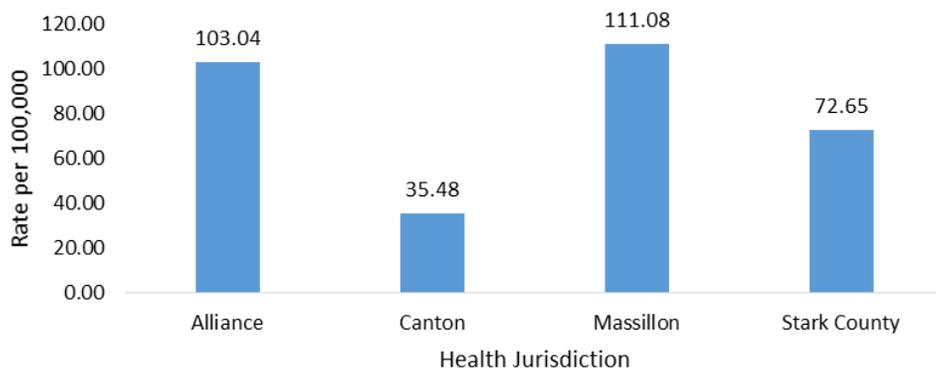
Graph 5 shows the rate of confirmed and probable cases by Stark County jurisdictions. Alliance, Canton and Massillon jurisdictions covers those within those particular city limits. Stark County jurisdiction covers all other areas outside of those three city limits.

	Probable Cases	Confirmed Cases	Total
Alliance	1	22	23
Canton	2	23	25
Massillon	5	31	36
Stark County	3	176	179

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Daily Count of Confirmed Cases Since First Initial Illness Onset Identified
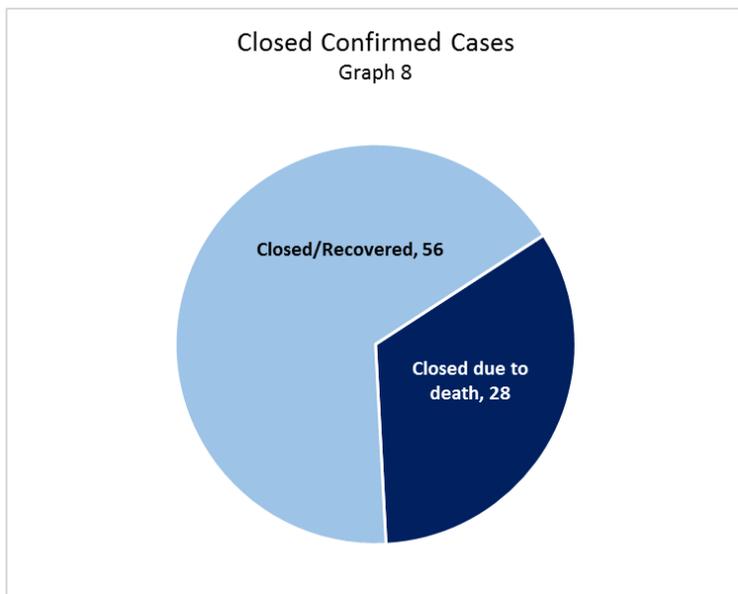### Graph 6
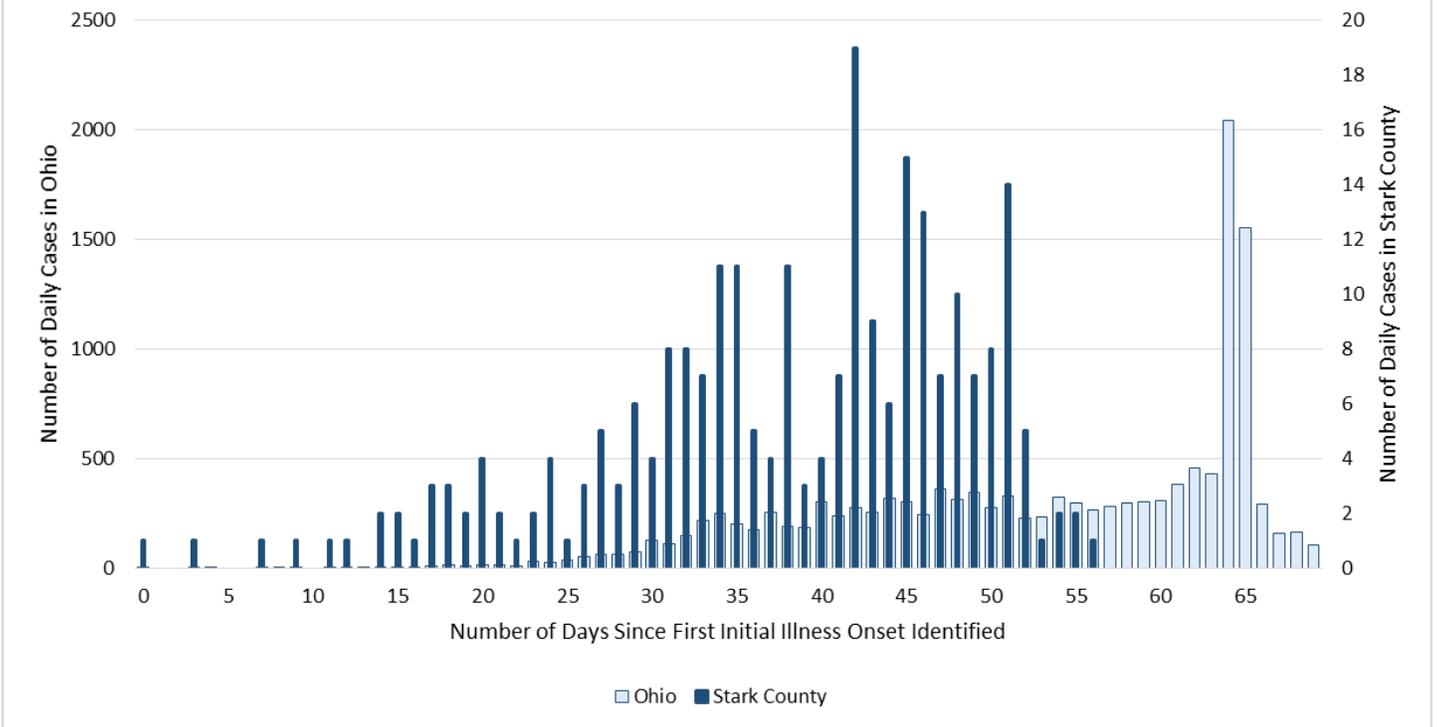
Graph 6 is based on number of days that have passed since the date of illness onset was reported by the first laboratory-confirmed case in Stark County and Ohio (Day 0). For Ohio, the first date of illness onset reported by a laboratory-confirmed case is 02/07/2020. For Stark County, the first date of illness onset reported by a laboratory-confirmed case was 02/25/2020. The number for total cases in Ohio is on the left/primary axis with Stark County on the right/secondary axis. **Note: This graph was much different on 4/20/2020 due to some data from ODH that showed an earlier onset date. This has been updated in today's data download.**

Rates of Confirmed Cases by Population
Graph 7

Counts of Cases	Ohio	Stark County
Confirmed	13609	252
Hospitalized	2882	68
Deaths	584	28

Rates based on 2018 population from data.census.gov.
Rates=(count/population)*100000

Graph 7 shows the rates dependent on the 2018 population in Ohio and Stark County. This graph works to compare cases in different populations by normalizing the cases per 100,000 persons.

- ➢ Ohio's rate of laboratory confirmed cases is 1.7x higher than those in Stark County.
- ➢ Ohio's rate of laboratory confirmed cases who require hospitalization is 1.3x higher than Stark County's rate.
- ➢ Stark County's rate of death due to COVID-19 complications is 1.5x higher than Ohio's rate.

Closed Confirmed Cases
Graph 8

Graph 8 is the counts of cases closed, either due to closed/recovered or closed due to death.

Cases can be closed for the following reasons:
- ▪ The person passed away.
- ▪ Symptoms have resolved in that case.
- ▪ The person is no longer being followed by the local health department.

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As we are seeing more of a focus on health care workers and long-term care facilities, we are offering some additional information.

## How Many of the Confirmed Cases are Healthcare Workers?
Graph 9
N=252

Yes, 27.4%

No, 72.6%
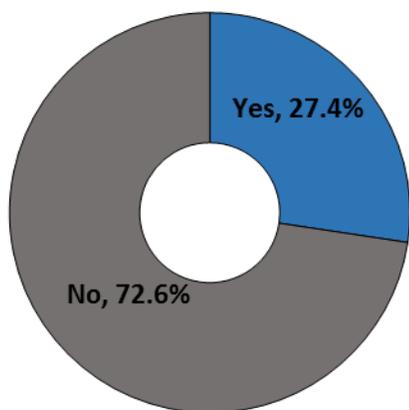
Graph 8* shows the breakdown of health care workers. Where you can see that of those with confirmed cases, 54.9% are not health care workers. This figure only shows the percent of cases that are affirmatively indicated to be a healthcare worker.

How Many of the Confirmed Cases are Living in a Long Term Care Facility?
Graph 10
N=252

Yes, 40.1%

No, 59.9%
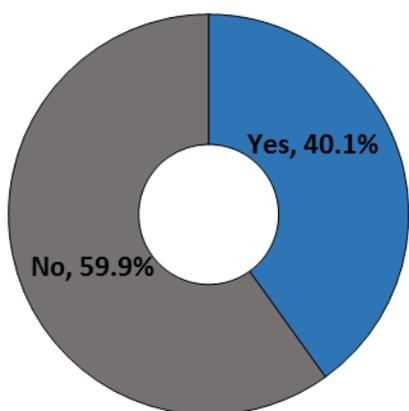
Graph 9* looks at the long-term care facilities in Stark County. Of those who have a laboratory-confirmed case of COVID-19, 31.2% of them reside in a long-term care facility. This figure only shows the percent of cases that are affirmatively indicated to reside in a long-term care facility.

As with other numbers in this report, the cases listed in long-term care facilities are cumulative and may include individuals who have recovered or passed away.

For more information on long-term care facilities including breakdown by facility and by resident/staff, please visit:
https://coronavirus.ohio.gov/wps/portal/gov/covid-19/dashboards/long-term-care-facilities

*Due to priority testing guidelines the two populations in Graphs 7 & 8, are in Priority groups 1 & 2 for testing. Priority categories are listed on page 1 of this report. This may cause numbers for those groups to be skewed.