



# Where do we stand?

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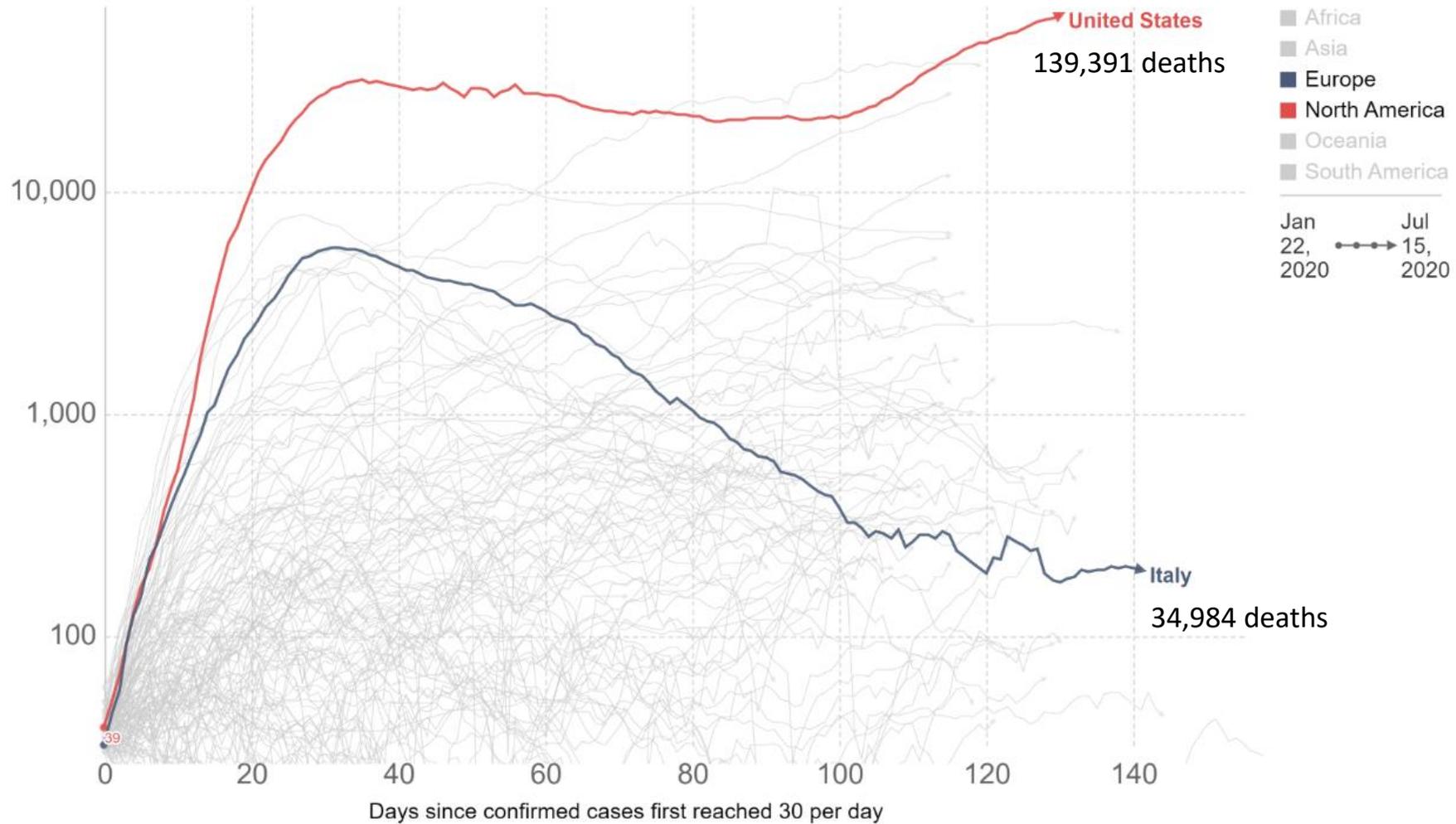
# Timeline of COVID-19 in the United States and OK

- **Feb 24-26:** US has 35 confirmed cases (no deaths)
  - 1<sup>st</sup> case in US with no known exposure indicating community spread
- **Mar 7-8:** Oklahoma reports first cases of COVID-19
- **Mar 13:** President Trump declares National Emergency
- **Mar 15:** 1<sup>st</sup> case of community spread in OK (Cleveland County)
- **Mar 15:** Mayor Holt emergency proclamation (subsequent revisions/additions)
- **Mar 15:** Gov. Stitt Emergency declaration, Exec Order, 19 counties with cases
- **Mar 24:** Gov. Stitt “Safer at Home” order, includes all counties, through April 30
- **July 15:** Global 13,323,530 cases; US 3,557,738 cases; 139,290 deaths (3.9%)
  - Oklahoma has 22,814 cases, 432 deaths (1.9%), 62% increase last 14 days
  - Oklahoma County 5,591 cases, 76 deaths (1.4%), 84% increase last 14 days
  - Cleveland County 1,526 cases, 40 deaths (2.6%), 67% increase last 14 days
  - Canadian County 594 cases, 3 deaths (0.5%), 105% increase in last 14 days

Sources OSDH, and [coronavirus.1point3acres.com](https://coronavirus.1point3acres.com)

# Daily confirmed COVID-19 cases: which countries are bending the curve?

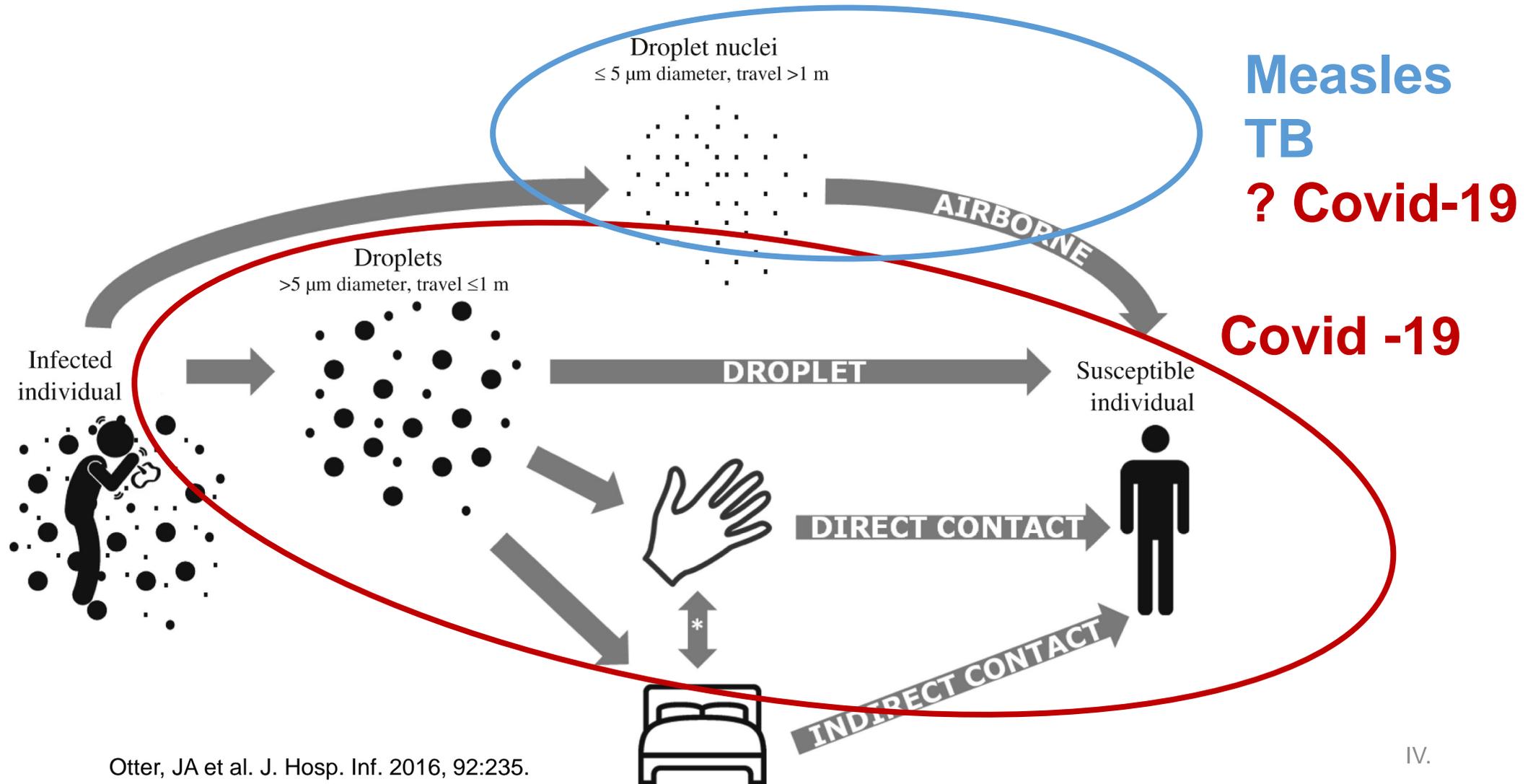
Because not everyone is tested the total number of cases is not known. Shown is the 7-day rolling average of confirmed cases.



Source: European CDC – Situation Update Worldwide – Last updated 15 July, 10:38 (London time)

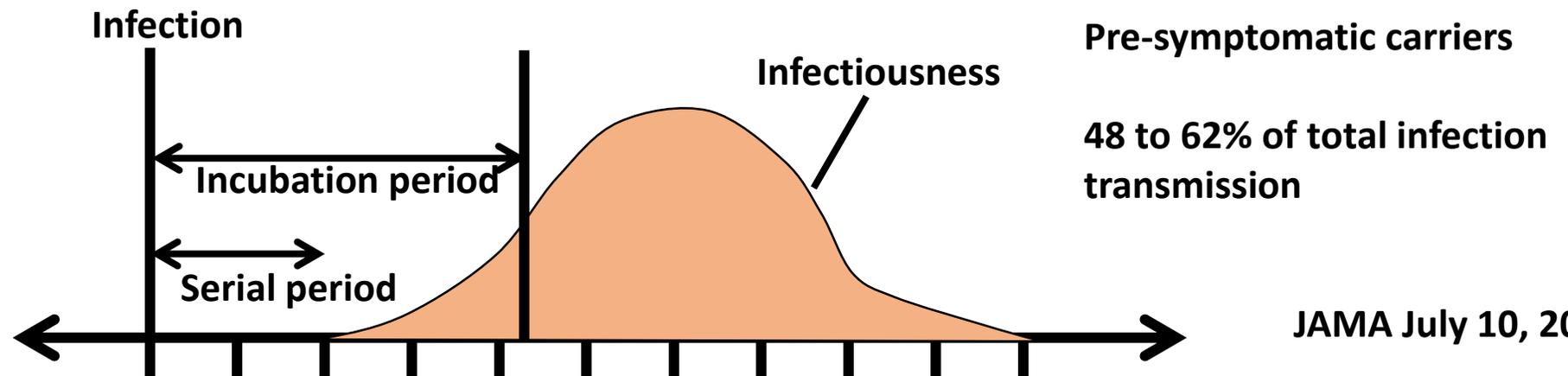
OurWorldInData.org/coronavirus • CC BY

# Transmission of Covid -19 infection



# Epidemiological Parameters of Covid-19

Description	Value
Incubation period	2 to 14 days
Incubation period median	5 days (11 is 97 <sup>th</sup> percentile)
Serial period median	4 days ( 3 to 5)
Infectious period	<b>Viral cultures usually negative 8 days after symptom onset</b>
Case fatality ratio (US now)	3.9 %



JAMA July 10, 2020

# Clinical Features and Prognosis of Covid-19

- 81% mild manifestations, 14% severe, 5% critical (need ICU)  
critical = respiratory failure, septic shock and/or multi-organ dysfunction
- Hospitalized patients, 74% to 86% are 50 yrs or older
- >75% of hospitalized require supplemental oxygen
- Hospital mortality 15% to 25%, age dependent
- 20% of hospitalized patients need ICU
- 30% to 90% of those in ICU require ventilator
- Mortality among those requiring ICU up to 40%
- Complications include brain, lung, liver, kidney, blood clotting
- Among survivors, at 2 to 3 months, < 15% symptom free, 20% have continued shortness of breath or chest pain
- 2% to 5% of cases are less than 18 yrs old (median 11 yrs), milder disease mostly

JAMA July 10, 2020 doi: 10.1001/jama2020.12839

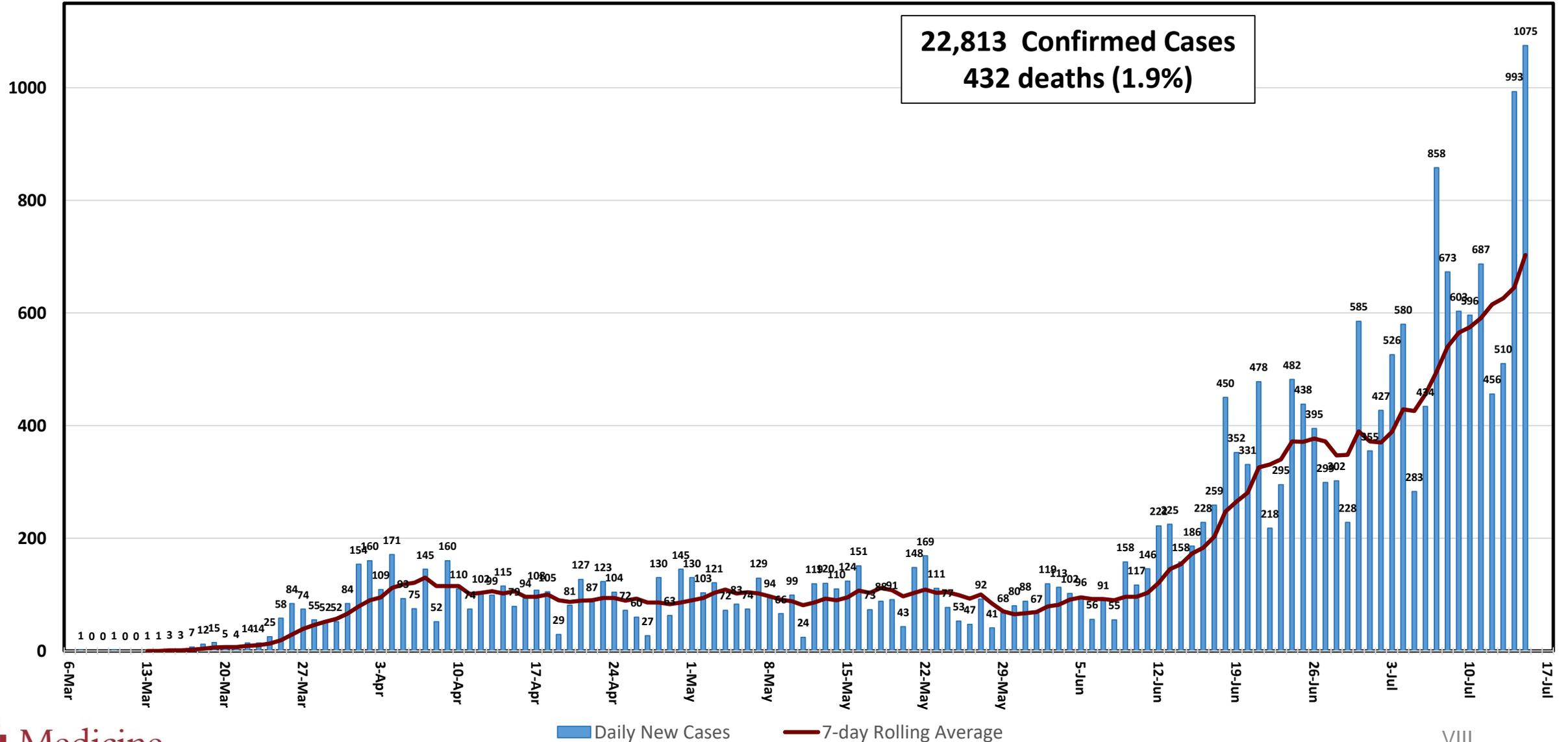
# Laboratory Testing

- Indicates a “snapshot” at single point in time
- **PCR test**
  - Measures the presence of viral genetic material (RNA)
  - Positive test = person is infected, can precede symptoms
  - Can identify asymptomatic individuals early in course of infection
  - Negative test = no evidence person is infected
  - Test negative in 100% to 67% days 1 through 4 after infection
  - Test positive in 80% 3 days after symptoms onset
- **Serologic (antibody) test**
  - Measures the presence of antibodies in blood to the Covid-19 virus
  - Positive test = exposure to the virus weeks or more previously
  - Negative test does not rule out current infection
  - Positive test = extent of immunity, if any, to future infection with Covid-19 currently unknown

Ann Intern Med doi: 10.7326/M20-1495

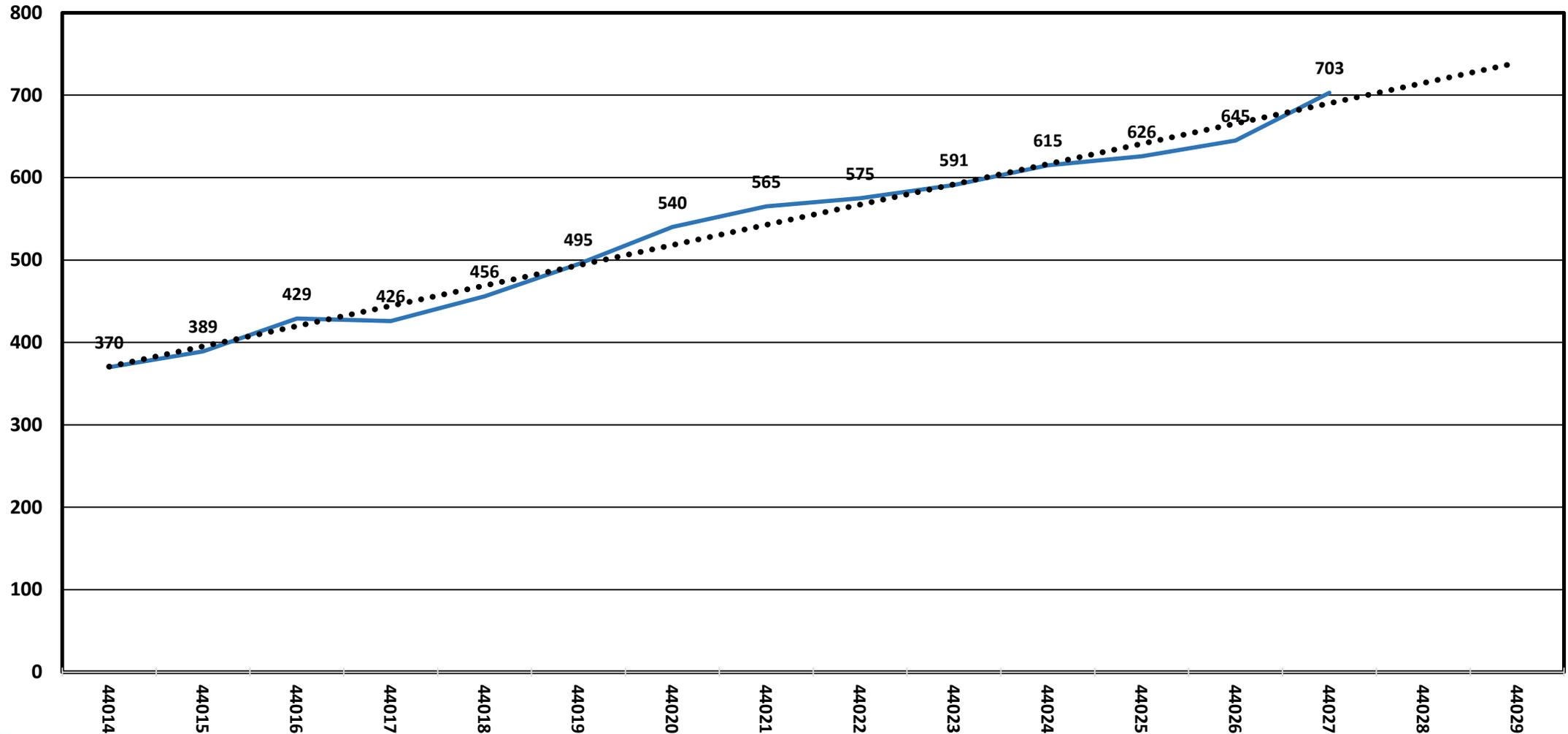
# Daily New Cases with 7-day Rolling Average

Oklahoma



# Seven-day Rolling Average of New Cases

*Oklahoma – Last 14 days*



County	Cumulative Cases	New Cases
OKLAHOMA	5591	332
TULSA	5626	178
CLEVELAND	1526	78
JACKSON	128	56
COMANCHE	570	53
CANADIAN	594	51
MCCURTAIN	651	20
CARTER	203	17
ADAIR	160	16
STEPHENS	102	13
LE FLORE	75	12
MUSKOGEE	228	12
PONTOTOC	93	11
GRADY	264	10
LOGAN	111	10
MCCLAIN	271	10

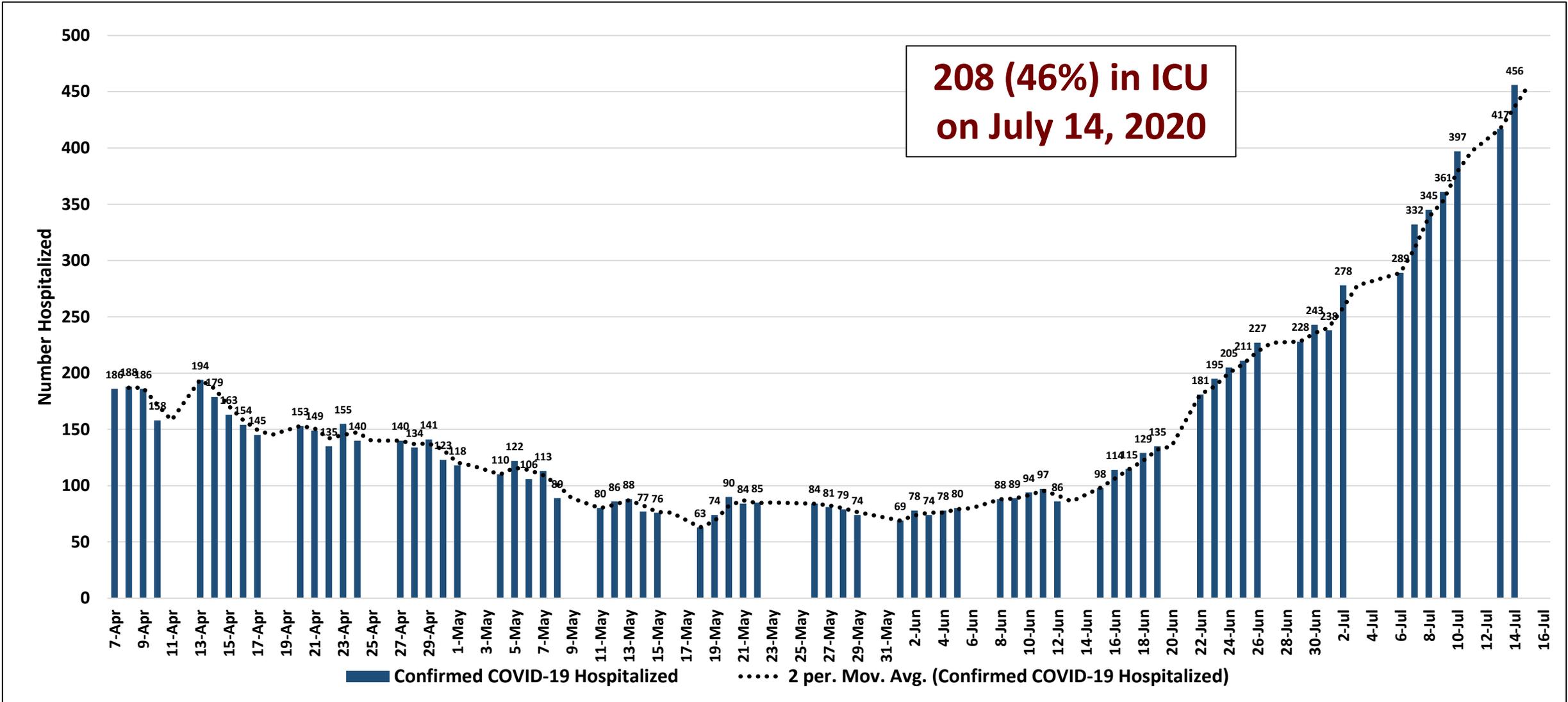
***July 15, 2020***

# COVID PCR Tests Done Per Week, and Percent Positive



Source: Oklahoma State Department of Health Executive Order Reports.  
 Available at: <https://coronavirus.health.ok.gov/executive-order-reports>.

# Hospitalizations – Confirmed Cases



**208 (46%) in ICU  
on July 14, 2020**

# Managing the Impact of Covid-19

## Critical elements

- No vaccine
- Reacting to only symptomatic cases is a losing “catch up” game
- **Only way to prevent illness: Avoid exposure to virus**
  
- **Cornerstones**
  - Decrease exposures as much as possible, practical
  - Wearing mask reduces transmission by about 70%
  - Mask does also protect the “wearer”
  - Avoid large group gatherings, especially indoors
  - Social distancing
  - Wash hands
  - Contain outbreaks aggressively by identifying infected (both symptomatic and asymptomatic), contact tracing, isolate
  - Laboratory testing is critical
  - Data-driven, creative, flexible as conditions change

Lancet June 1, 2020, doi.org/10.1016



**Oklahoma City-County Board of Health | Oklahoma City-County Health Department  
Joint Presentation to the  
Oklahoma City Council**

**July 16, 2020**



[occhd.org](http://occhd.org)



# Overview

- Epidemiology Report
  - Cases; Hospitalizations; Deaths; ICU Capacity
- Activities
  - Testing
  - Messaging | Partnerships
  - BOH Activities
- OCCHD | Board Recommendations | Discussion

# COVID-19 Trends for Oklahoma City-Metropolitan Area through July 15th



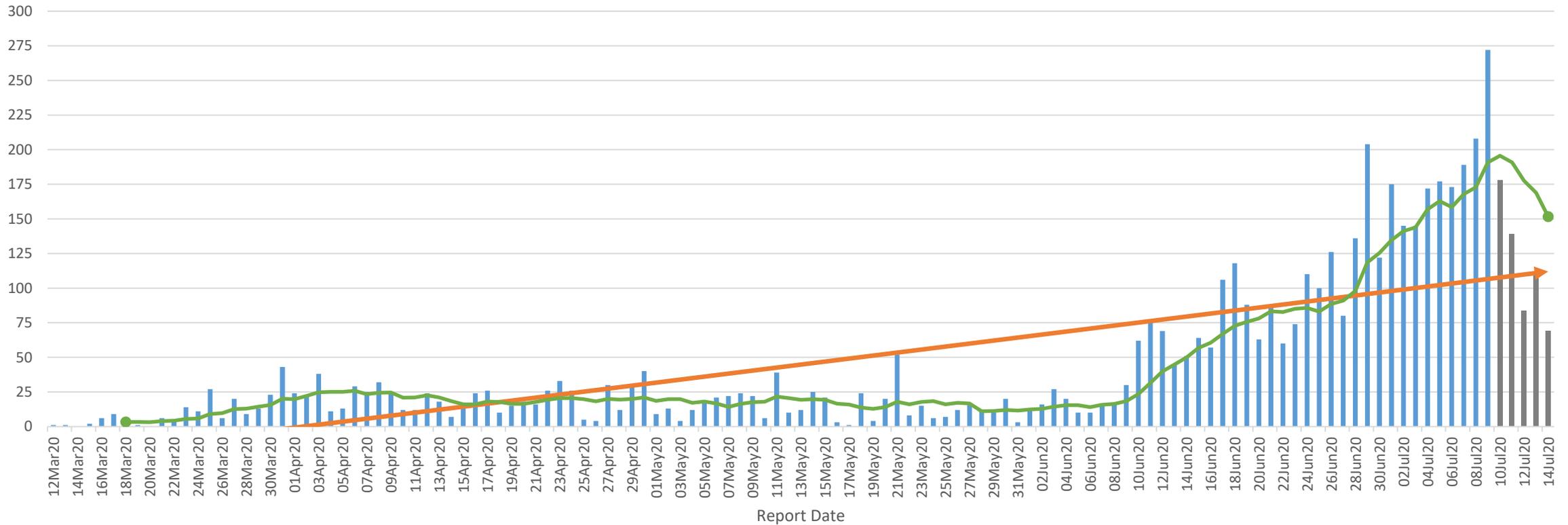
# Cumulative Case Counts and Deaths As of 7/15

	COVID-19 Cases	COVID-19 Deaths	Case Fatality Ratio
Oklahoma County	5,591	76	1.3%
OKC-Metropolitan Area*	7,711	119	1.5%
Oklahoma State	22,813	432	1.9%
United States	3,478,017	137,106	3.9%

\*For this analysis, OKC-Metropolitan Area includes Oklahoma, Cleveland and Canadian Counties.



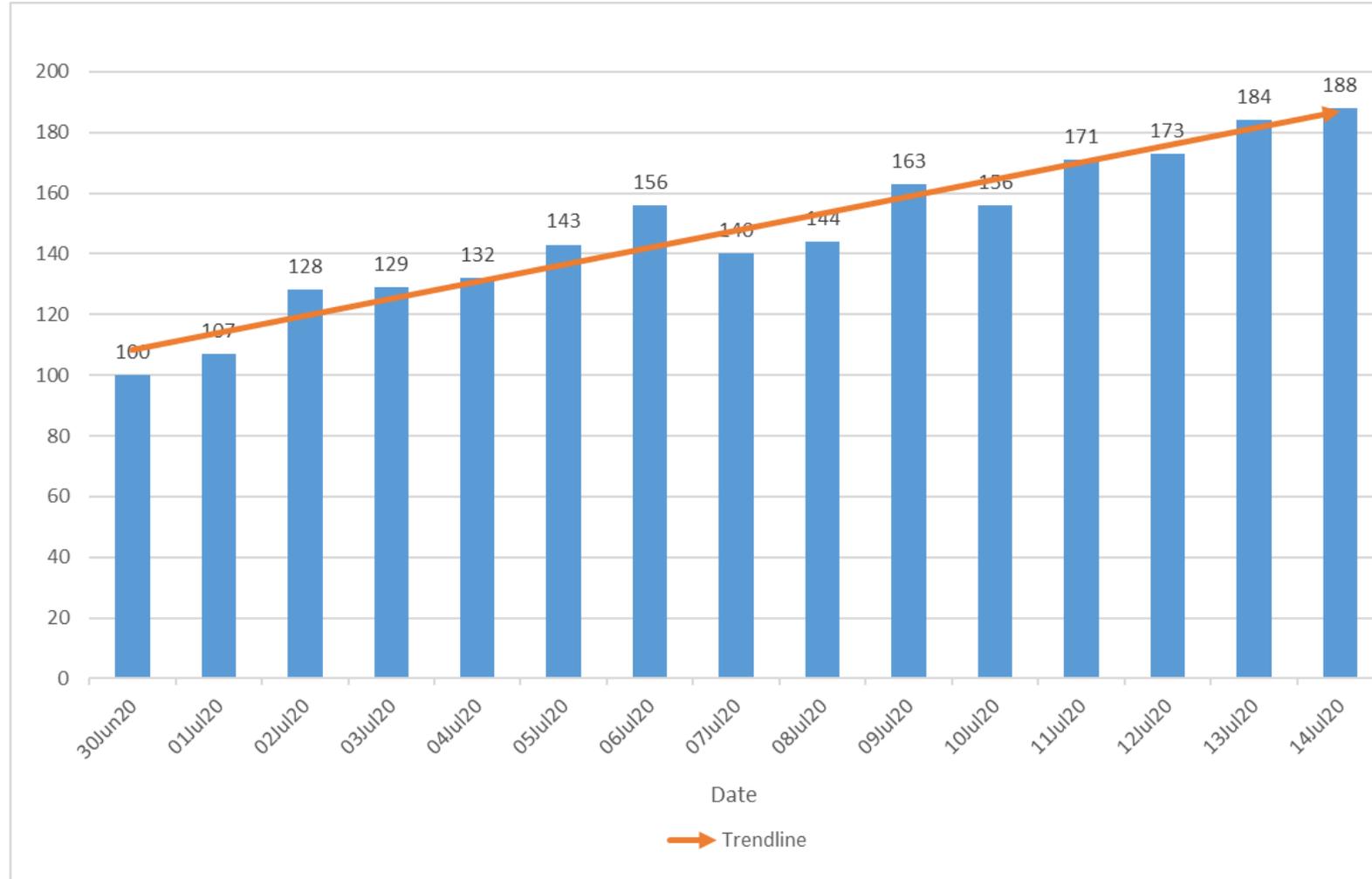
# New Daily Cases in Oklahoma County



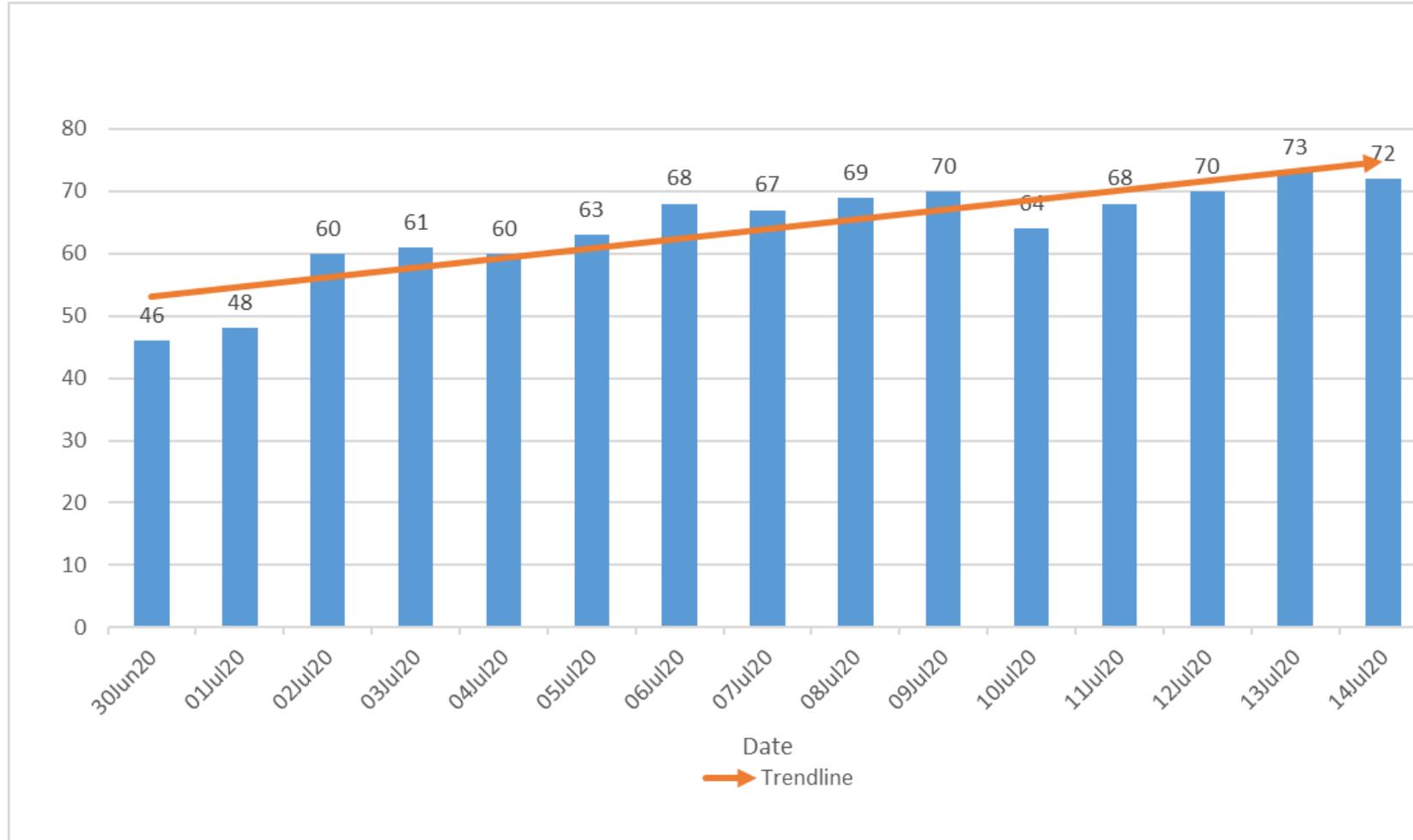
\*Case counts in gray are subject to increase due to delayed reporting.



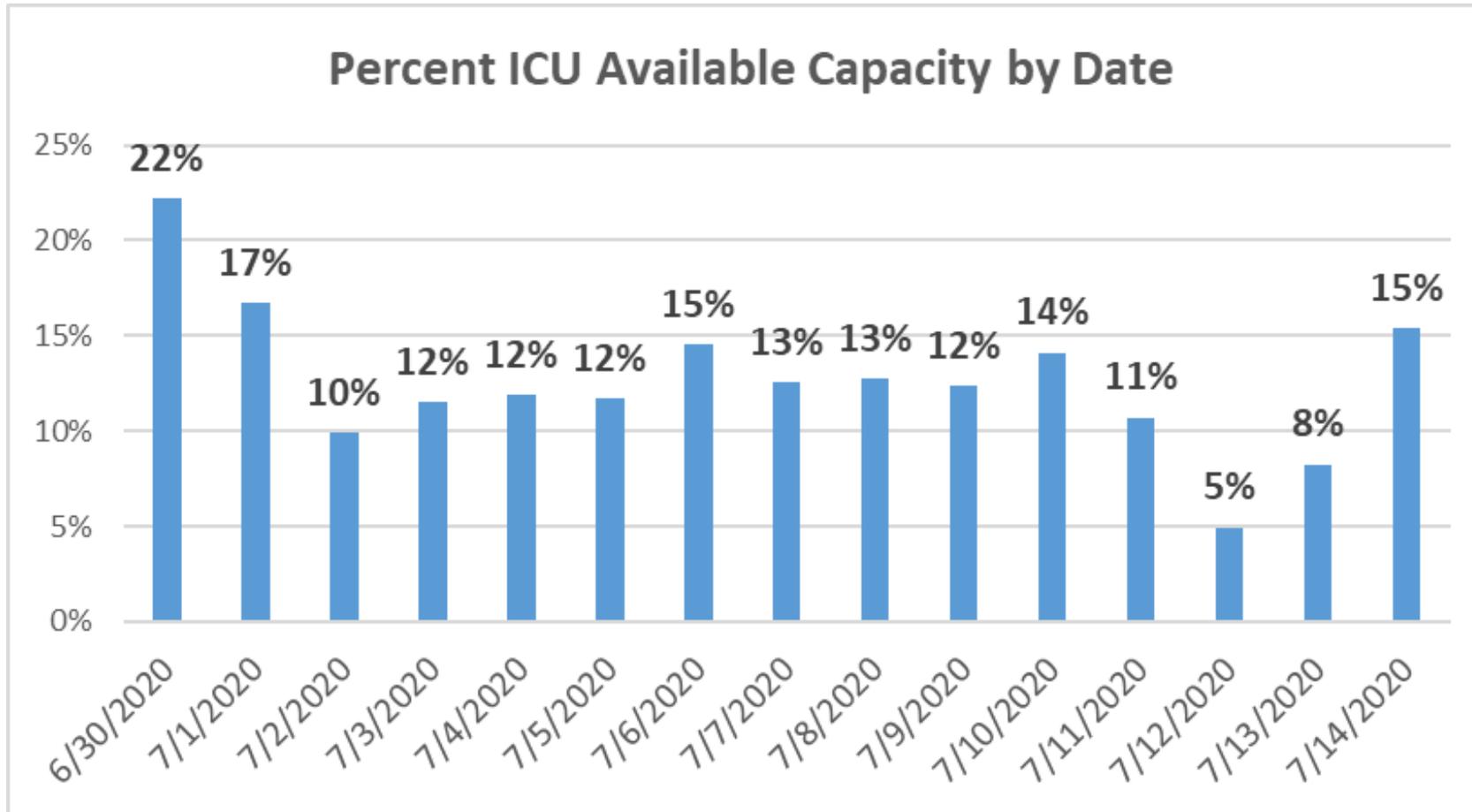
# Current COVID-19 Hospitalizations in Oklahoma County



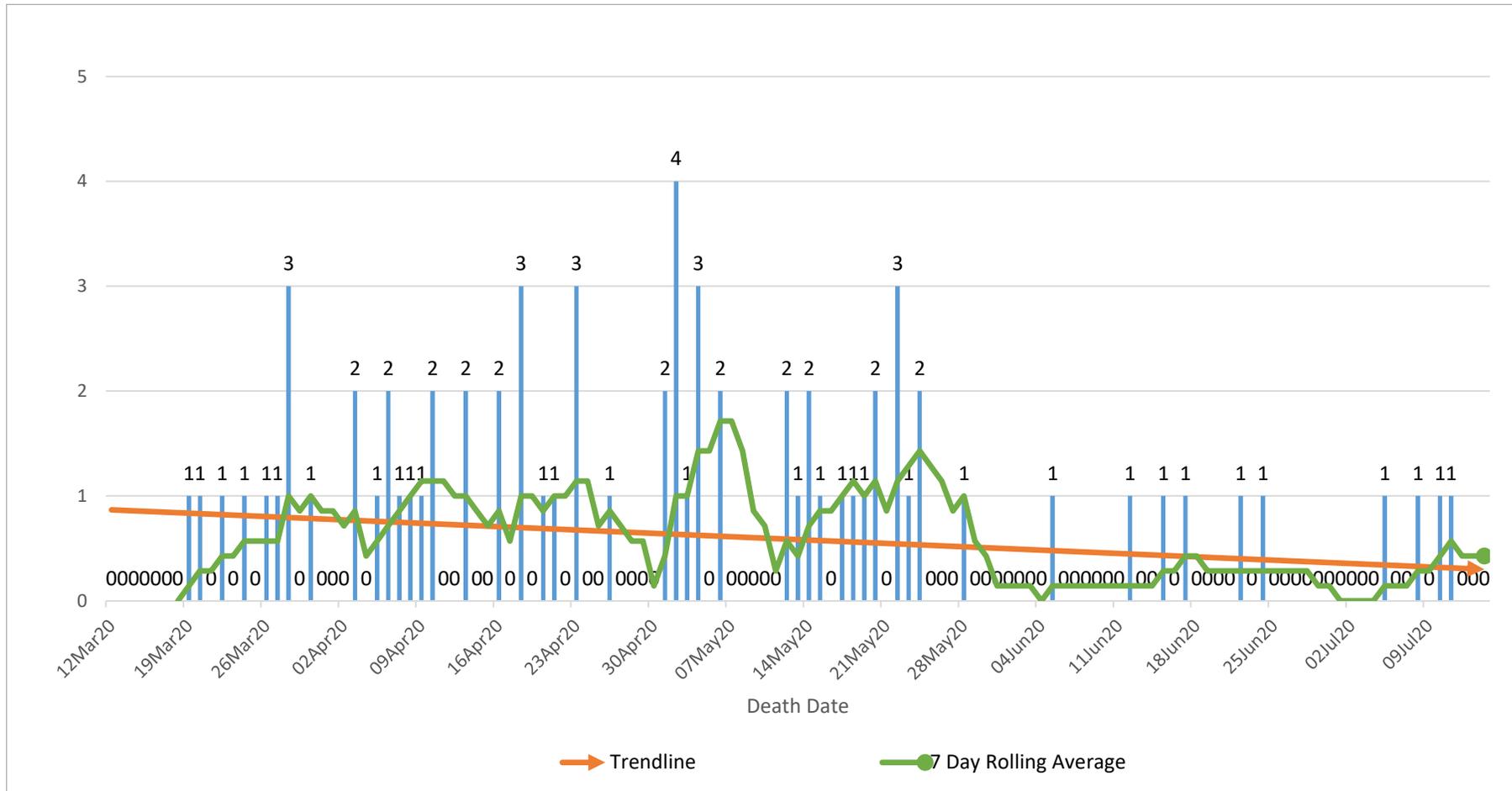
# Total COVID-19 ICU Hospitalizations in Oklahoma County



# All Conditions: ICU Bed Capacity in OK County

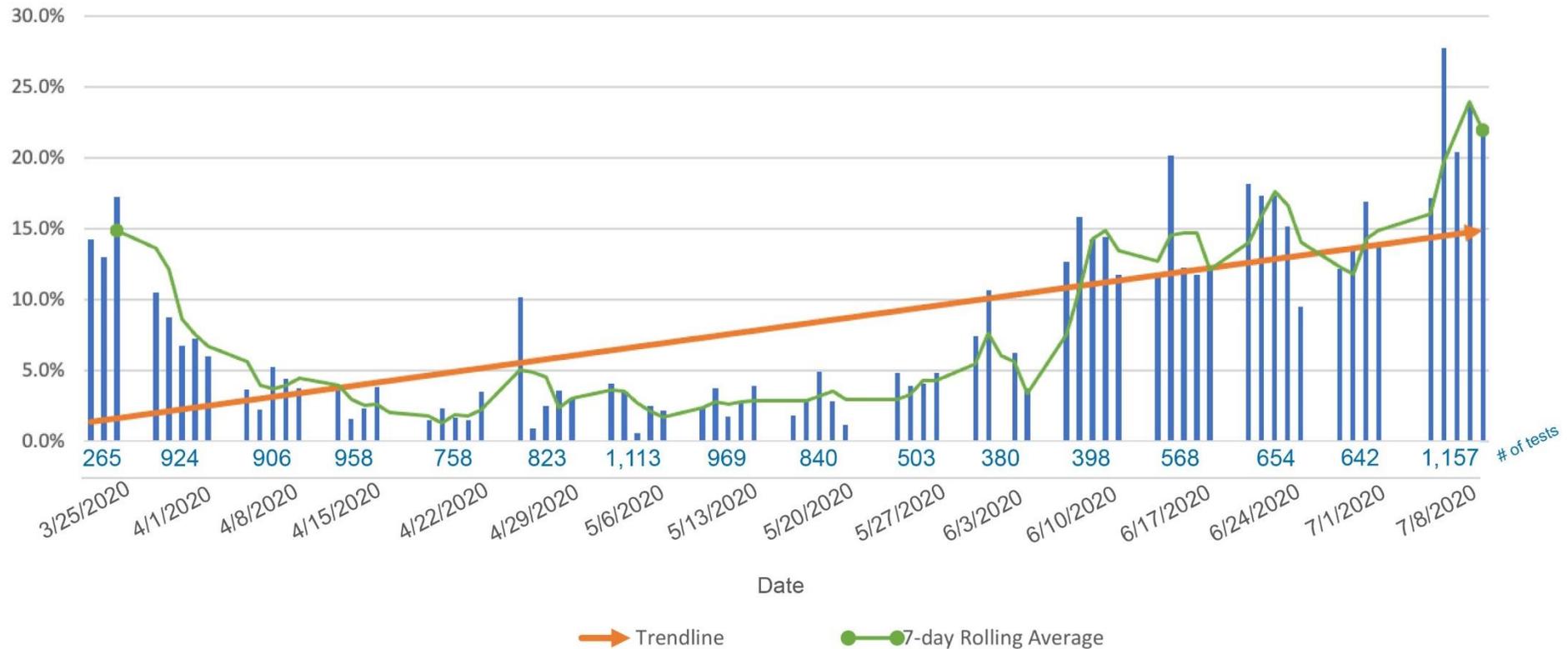


# Daily Deaths in Oklahoma County

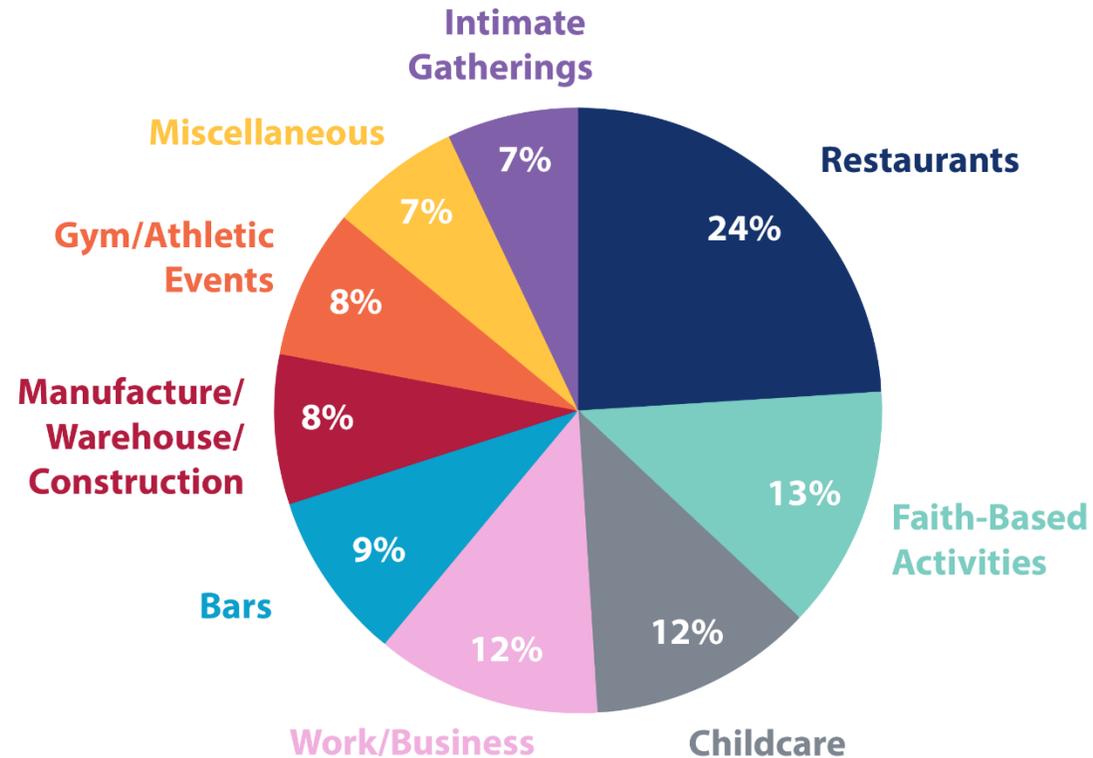


# Daily Positivity Ratios from OCCHD Drive Thru Testing Sites

OCCHD Drive Thru Testing Sites  
Daily Positivity Ratios  
March 25-July 10, 2020



# Common Activity Trends in Oklahoma County Cases



Subgroup analysis of 409 new cases

- Faith-based activities
  - Choirs and church staff
- Intimate gatherings
  - Ex. Weddings, funerals, holiday/birthday celebrations, house gatherings

# OCCHD Activities

Testing  
Messaging  
Partnerships



# OK County COVID-19 Testing: 17,519 since March

- **State Fairgrounds**
  - Average of 200+ each day, Monday through Friday
- **OCCHD Northeast and Southern Oaks**
  - Average of 300+ each day, Monday through Friday
- **Walmart | CVS**
  - Average of 125+ each day, Monday through Friday
- **Federally Qualified Health Centers (Variety Care and Perry Klaassen)**
  - Total of 2,504 since testing began

# Testing Snap-Shot

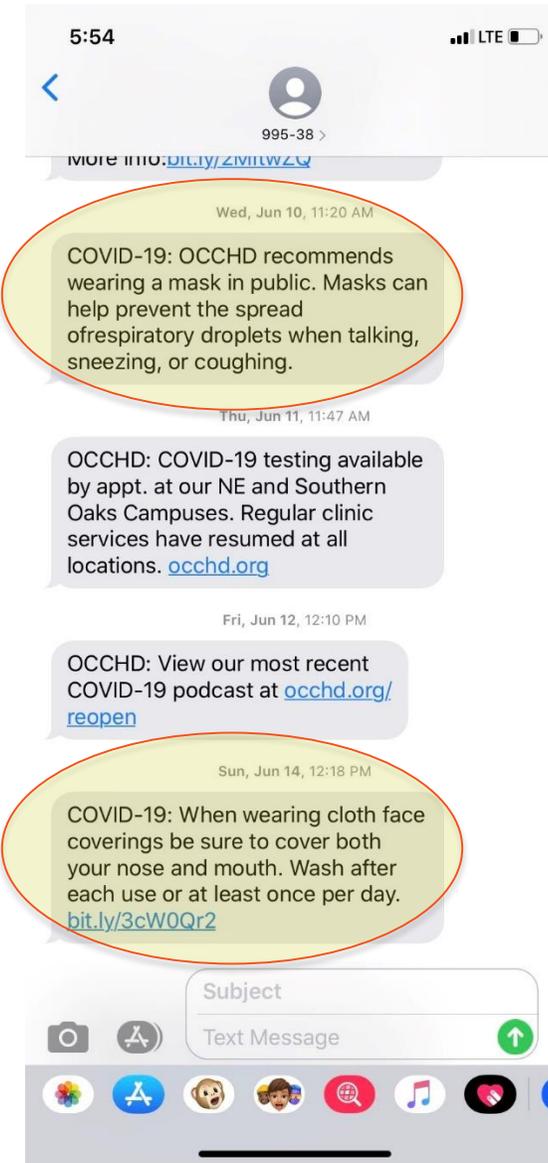
Location	Dates	Total Tested
OCCHD-Fairgrounds	3/25-5/22	7,576
OCCHD NE	6/1-ongoing	2,000
OCCHD SO	5/26-ongoing	2,302
Walmart		2,586
OU Physicians		2,468
Perry Klaassen		107
Hope Clinic		508
Classen SAS NE	One Day	172
<b>TOTAL</b>		<b>17,719</b>

# Daily Text Messages

116 Text Messages  
3,636 Subscribers

Receive direct updates for OKC  
& OK County about COVID-19  
Text **ADD** to 405-920-3022

Textea **ADD** al 405-944-4005  
parar recibir actualizaciones directas para  
OKC y el Condado de OK sobre COVID-19



# BOH Activities (prior to availability of CARES funding)

## OCCHD Expenditures

- \$500,000 toward testing, PPE and lab costs
- \$400,000 toward hiring new staff, staff expenses and testing kits
- \$50,000 toward digital media messaging the first 60 days of the pandemic
- \$100,000 for staff/supplies to assist Homeless Alliance

## Public Health Recommendations

April 1- Officially recommended the Oklahoma Board of County Commissioners implement a 'shelter-in-place' plan to the unincorporated areas within Oklahoma County.

## Public Mask Distribution

OCCHD has provided 50,000 masks to the general public through non-profit and faith-based organizations, and OCCHD testing sites.

# Public Health Recommendations

*as of July 16, 2020*

## Recommendations for potential City Council ordinances

1. **Everyone in the city of Oklahoma City wears a mask in all public settings**
2. **Limit indoor public gatherings to 25 individuals or less**
3. **Strongly encourage vulnerable populations to shelter at home for four weeks**
4. **Individual interventions recognized through contact tracing for consideration**
5. **Temporary/intermittent closing of bars and indoor dining**
  - **Will be monitored on an ongoing basis**



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presentation to the  
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[occhd.org](http://occhd.org)

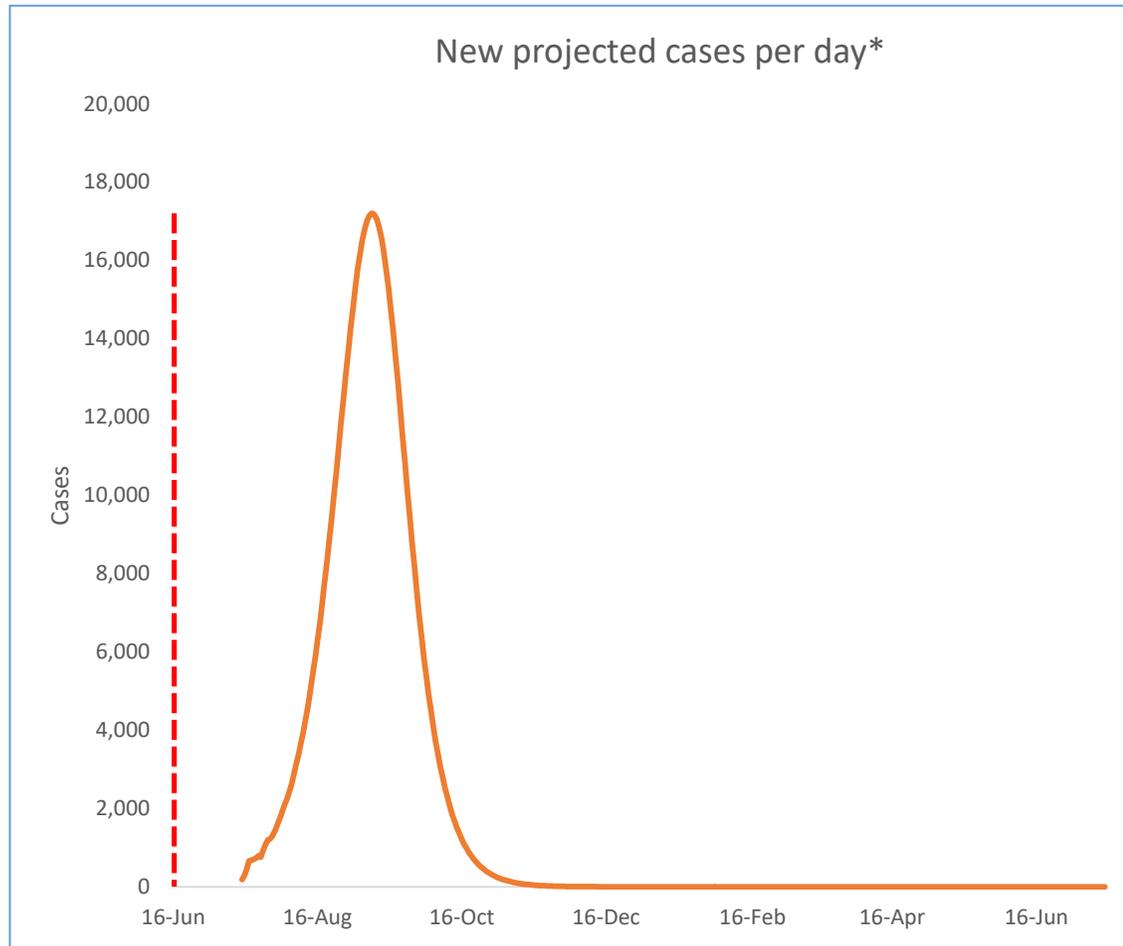


# Extra Slides



# COVID-19 trends projections in Oklahoma-City County

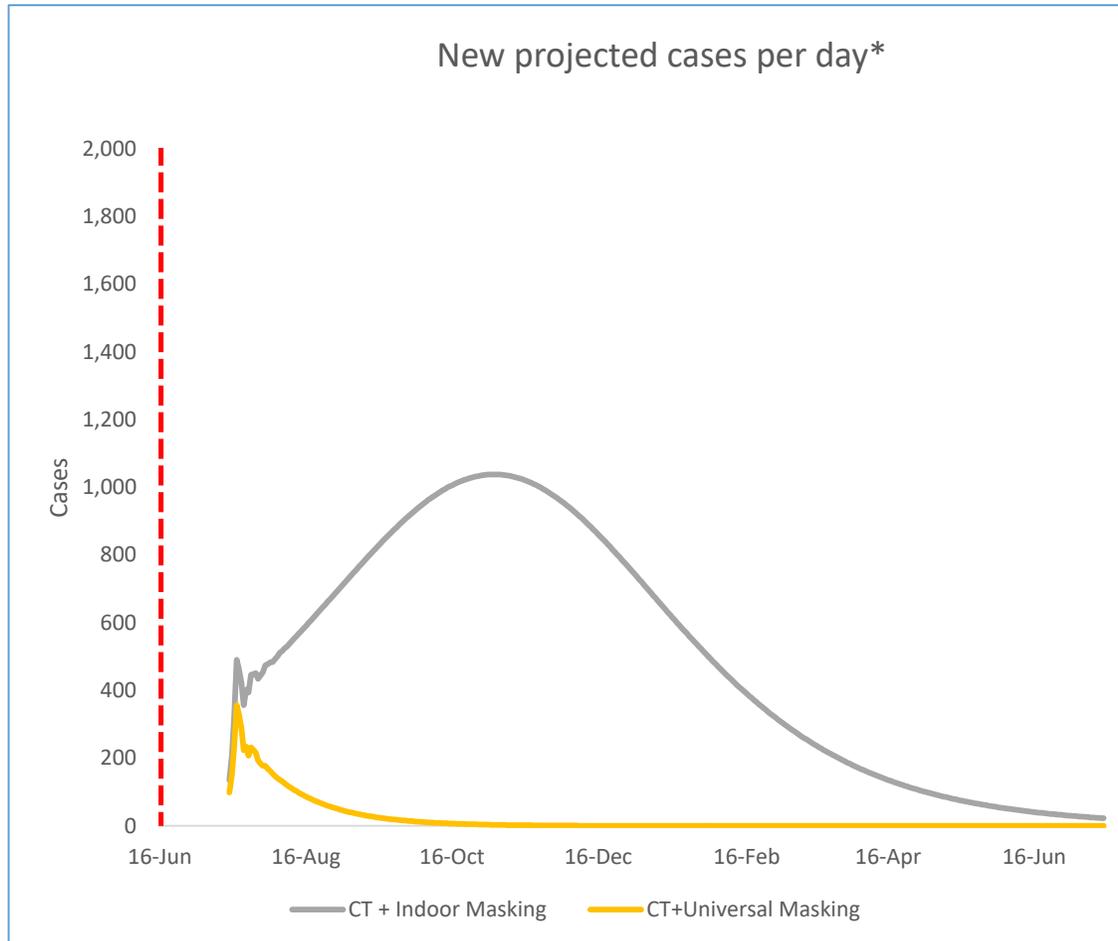
## Contact Tracing and Current Public Health Measures



- Projections of the impact of public health measures on outbreak.
  - Based on cumulative case counts and case trends for last two weeks.
- Current Measures
  - Masking order in effect for staff in restaurants and bars.
  - Continued contact tracing for COVID-19 cases.

# COVID-19 trends projections in Oklahoma-City County

## Contact Tracing(CT) with Masking Ordinances



- CT+ Indoor masking
  - Expanded use of facemask in all indoor public spaces
- CT+ Universal masking
  - Universal mask mandate in all public spaces

# COVID-19 trends projections in Oklahoma-City County

## Projected Impact on COVID-19 Outbreak

	Current Measures Only	CT+ Indoor Masking	CT+ Universal Masking
Estimated transmission reduction*	15%	25%	40%
Projected no. of cases	693,223	184,043	7,657
Outbreak Duration**	158 days	>365 days	139 days

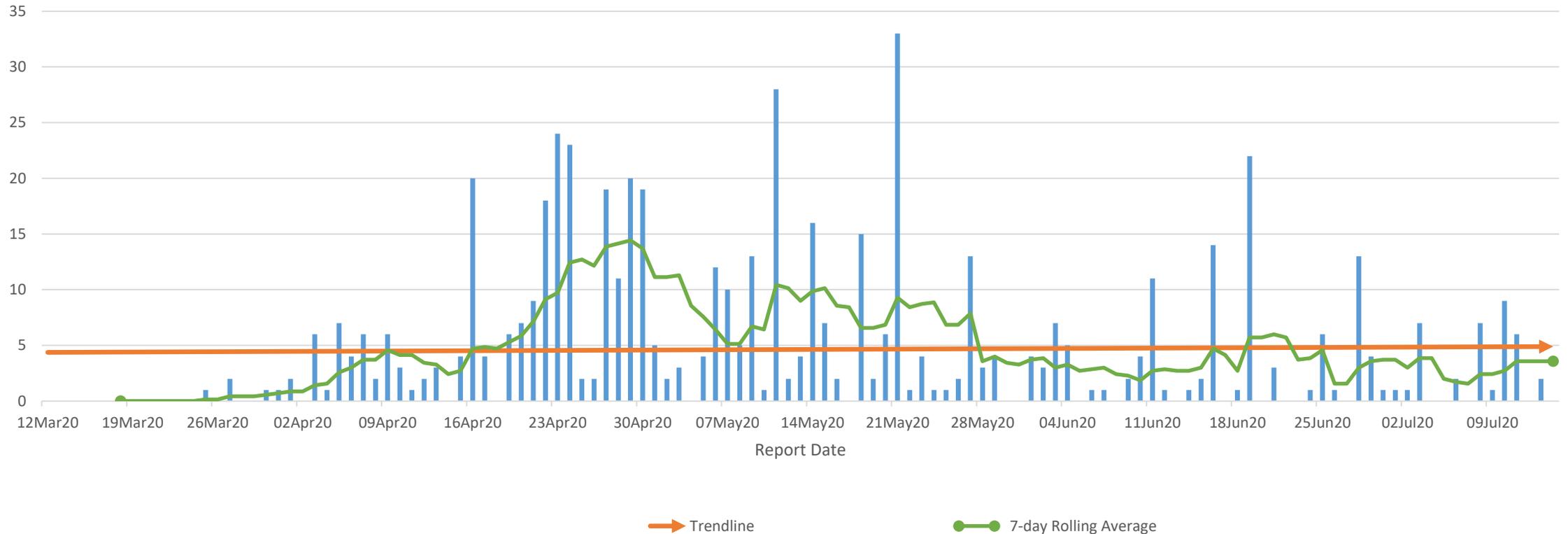
\*Based of factors including mask effectiveness, compliance rate, setting impacted by measure

\*\*Assumption that herd immunity is attainable

\*\*\*CT=Contact Tracing



# LTC Associated Cases in Oklahoma County



# Qualtrics

## Testing

Scheduling appointments | reminders

Results through the patient portal

## Contact Tracing

Automating communication to the contacts, which frees up staff to redeploy elsewhere in the response.

## Community Participatory Check-Ins

Tracking an individual's health weekly, and then daily if COVID-19 symptoms start to present themselves.

This research project will require a powerful and flexible solution to help the City better understand residents and their COVID-19 cases.

# Messaging



# Partnerships

- **Emergency Management Districts**
- **Schools Districts**
- **Chambers of Commerce**
- **ODMHSAS**
- **FQHCs (Variety Care | CHCI)**
- **Non-Profit Organizations**
  - **Lynn Institute**
  - **Homeless Alliance**
  - **Latino Development Community Action Agency**
- **University of Oklahoma Health Sciences Center**
- **OU Medicine**
- **Local Hospital Systems**
- **Oklahoma Blood Institute**
- **START Coalition**
- **Elected Officials across central Oklahoma**



Total Cases

5,591

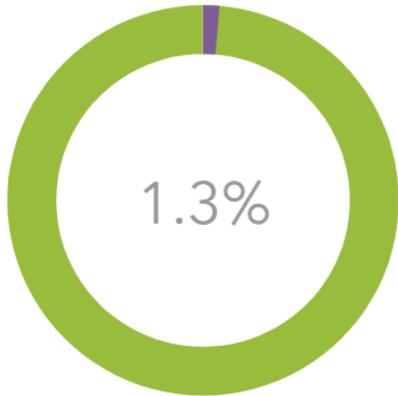
Total Hospitalizations

536

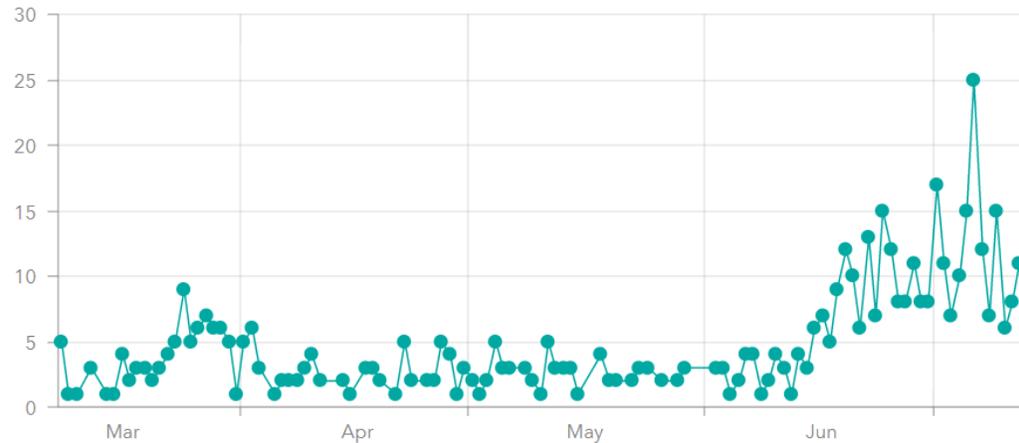
Total Deaths

75

Overall Case Mortality Rate



Daily Hospitalizations



Total Active

2,264

Total Recovered

3,252

Rolling Averages

Hospitalizations

Gender and Age Group

Race & Ethnicity