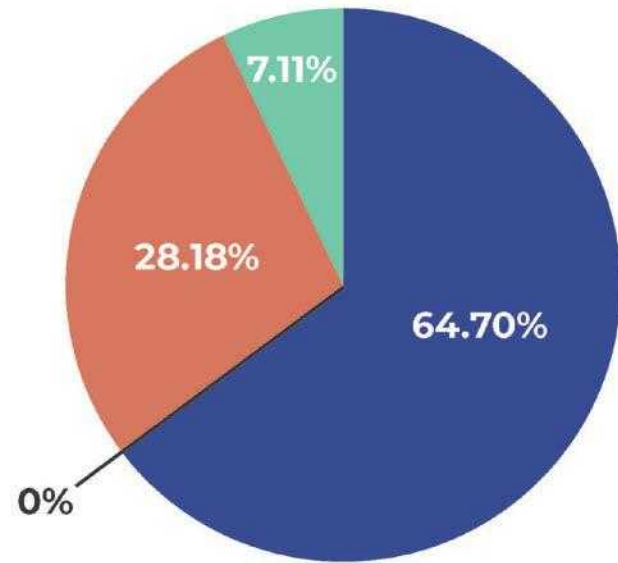




Oklahoma City-County Health Department Revenue FY 20



- Property Taxes (64.70%)
- Federal/State Grants and Contracts for Services (28.18%)
- Charge of Services (7.11%)
- State Appropriated Funding for Operations (0%)

DIRECTOR'S REPORT

COVID VACCINE DISTRIBUTION

COVID-19 HIGHLIGHTS





**March 10,
The Reed Center, Midwest City**

VACCINE DISTRIBUTION

Oklahoma County vaccine allotment has tremendously increased. As of March 10:

Approximately **1,105,595** total vaccine doses administered in Oklahoma

- Healthcare workforce
- 1st responders
- 65+
- Prek-12 teachers
- Comorbidities (as of March 9)
- Essential Workforce (as of March 9)

Approximately **703,606** prime doses administered across Oklahoma and **401,989** Oklahomans have received both the prime and boost dose.

Approximately **231,688** doses administered in Oklahoma County





COVID-19 VACCINE CLINICS

IN OKC-COUNTY

español

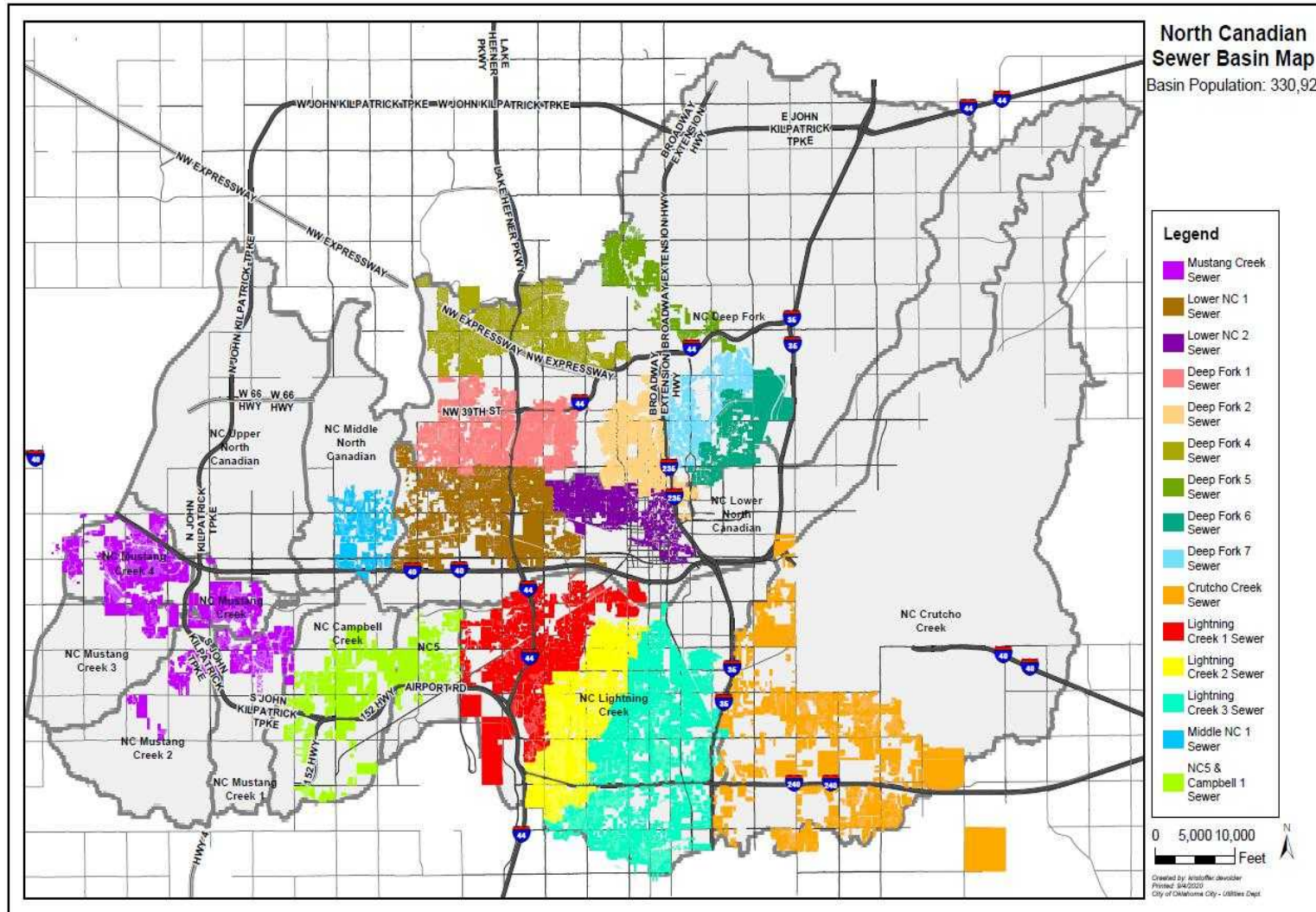


VACCINE DISTRIBUTION

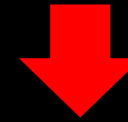
Oklahoma County is currently in tier 3

- Vaccinating teachers, staff and residents in higher education settings
- Vaccinating critical infrastructure personnel
- Continue to vaccinate phases 1-2
- As of 3/10/21, a total of 22,920 individuals have scheduled their vaccine appointments in vaxokc.com.

WASTE-WATER MONITORING IN OKC



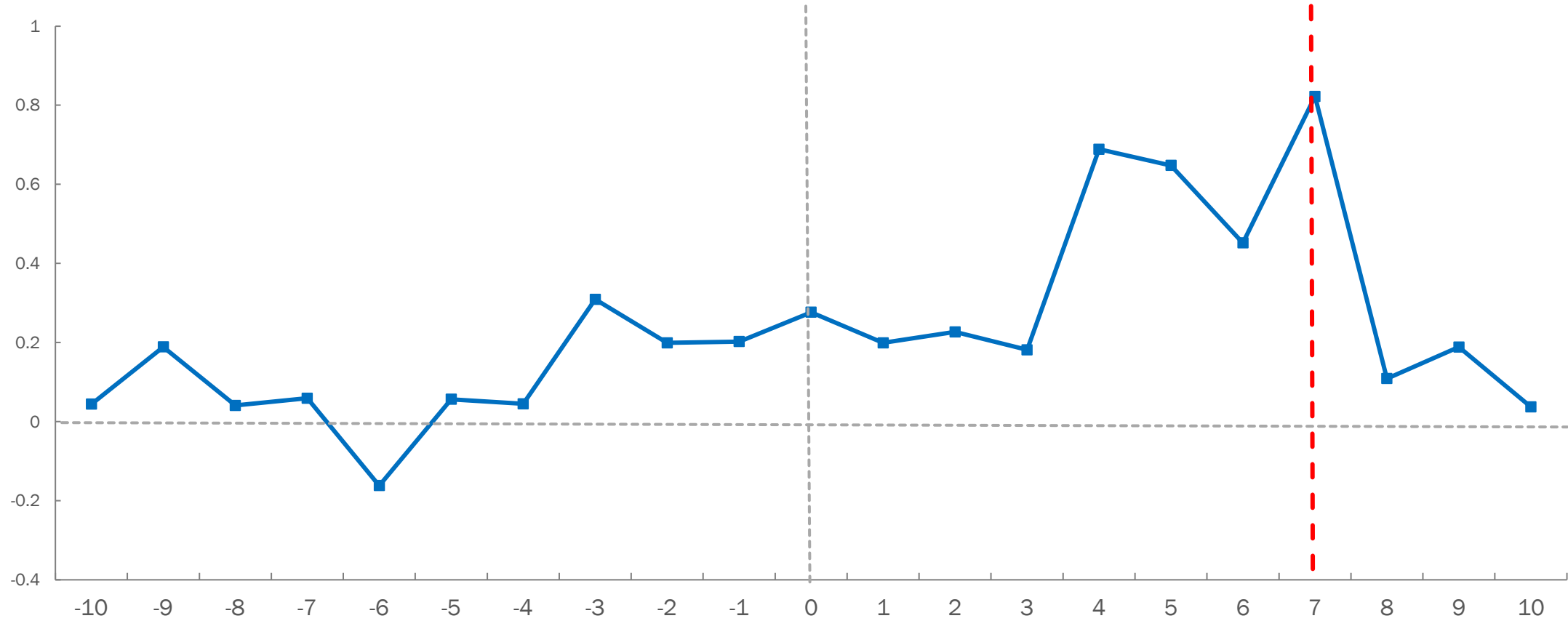
14 locations – diverse population (many high risk, underserved)



- Guide testing and vaccine distribution
- Monitor trends, predict outbreaks
- Monitor vaccine efficacy
- **Monitor genetic variants!**

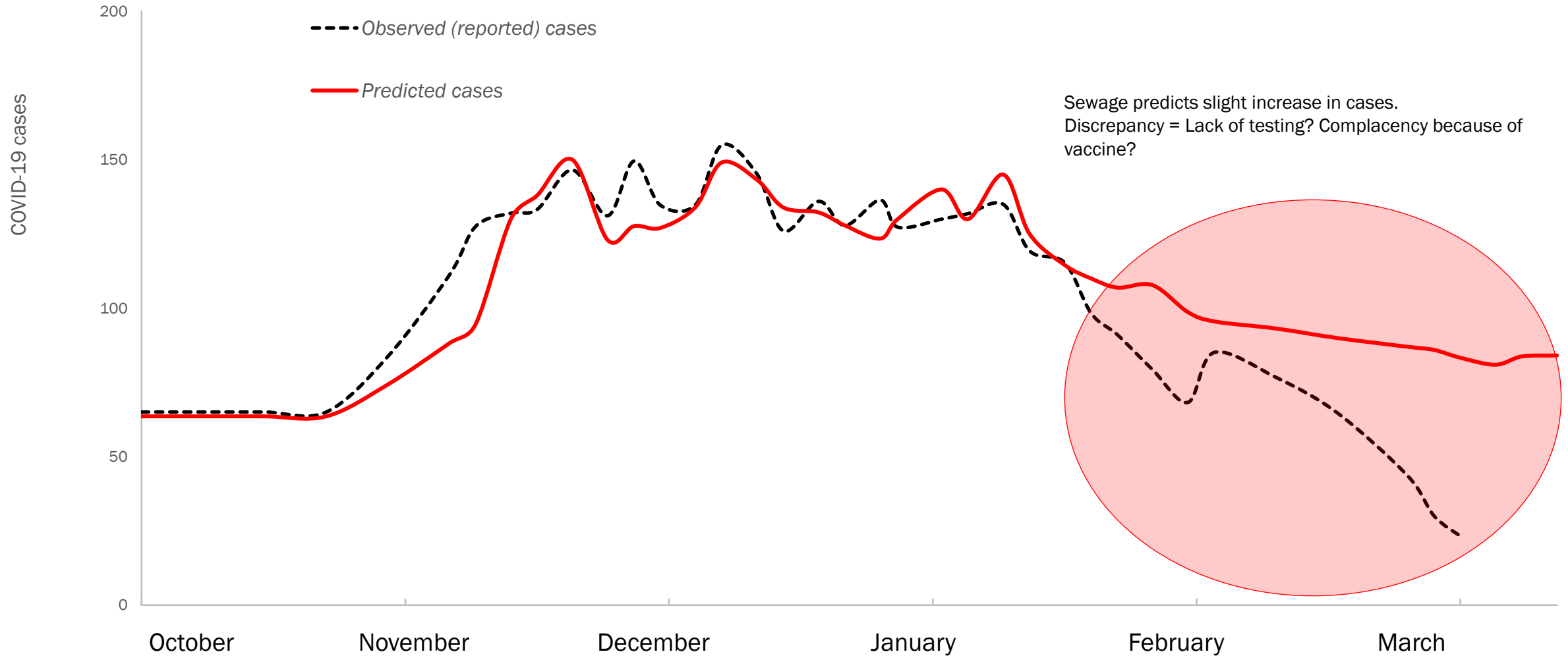
HOW 'FAST' IS SEWAGE?

Correlation between sewage and cases (r-square)



Sewage leading cases by (x) number of days

SEWAGE PREDICTS COVID CASES 7 DAYS BEFORE THEY ARE REPORTED



Detected mutations in the Spike protein

- **D614G** early mutation, common
- **Q677P** “Pelican” lineage (B.1.2), mainly U.S.
- **Q677H** 6 other U.S. variants, globally distributed
- **E484K** South Africa (B.1.351), Brazil (P.1), and New York (B.1.526) variants

Not found

- **N501Y** UK (B.1.1.7), South Africa (B.1.351), Brazil (P.1)
- **K417N/T** South Africa, Brazil
- **P681H** UK
- **L452R** California (B.1.429)
- **S477N** New York (B.1.526)

Sample	D614G	Q677P	Q677H	E484K
1	99.4%	33.7%	-	-
2	98.4%	37.9%	-	25%
3	98.5%	51%	-	-
4	99.3%	42.8%	8.3%	3.8%
5	99.2%	51.2%	24.4%	-
6	100%	-	-	-
7	100%	-	-	-
8	99.4%	51.9%	-	-
9	99.5%	26.9%	-	-

**LIKELY HAVE AN ABUNDANCE OF A “PELICAN”
VARIANT AS PROMINENT VARIANT IN OK**

COVID-19 Update 03/11/2021

Surveillance of emerging variants can help detect variant with:

- **Ability to spread more quickly in people**
- **Ability to cause either milder or more severe disease in people**
- **Ability to evade detection by specific diagnostic tests**

Many commercial nucleic acid amplification tests that use reverse transcription polymerase chain reaction (RT-PCR) have multiple targets to detect the virus, such that even if a mutation impacts one of the targets, the other RT-PCR targets will still work. However, there are some tests that rely on only one target, and mutations may impact their ability to work. FDA is using public health sequencing data to monitor mutations and their impact on confidential/proprietary diagnostic test designs.

COVID-19 Update 03/11/2021

Surveillance of emerging variants can help detect variant with:

- **Decreased susceptibility to therapeutics that employ monoclonal antibodies**
Such therapy involves specifically designed antibodies that target regions of the virus to block infection. Because these treatments are more specific than natural immune response-generated antibodies, they may be less effective against variants that emerge.
- **Ability to evade natural or vaccine-induced immunity**
Both natural infection with and vaccination against SARS-CoV-2 produce a “polyclonal” antibody response that targets several parts of the spike protein. The virus would need to accumulate significant mutations in the spike protein to evade immunity induced by vaccines or by natural infection.

Among these possibilities, the ability to evade vaccine-induced immunity would be the most concerning. There is no definitive evidence yet that this is occurring, but scientists are closely evaluating this possibility.