

Webinar starts at  
12:00 PDT / 3:00 EDT

# COVID-19 Update for Imaging Providers

*June 4, 2020*

**MEDNAX**<sup>®</sup>  
RADIOLOGY SOLUTIONS

 **vRad**<sup>®</sup>  
a MEDNAX<sup>®</sup> Company



# Today's Presenters



**Joe Schmugge**  
VP of Operations  
vRad



**Brian A. Solomon, MD**  
Chairman and Medical Director  
Department of Radiology  
Pottstown Hospital, Tower Health

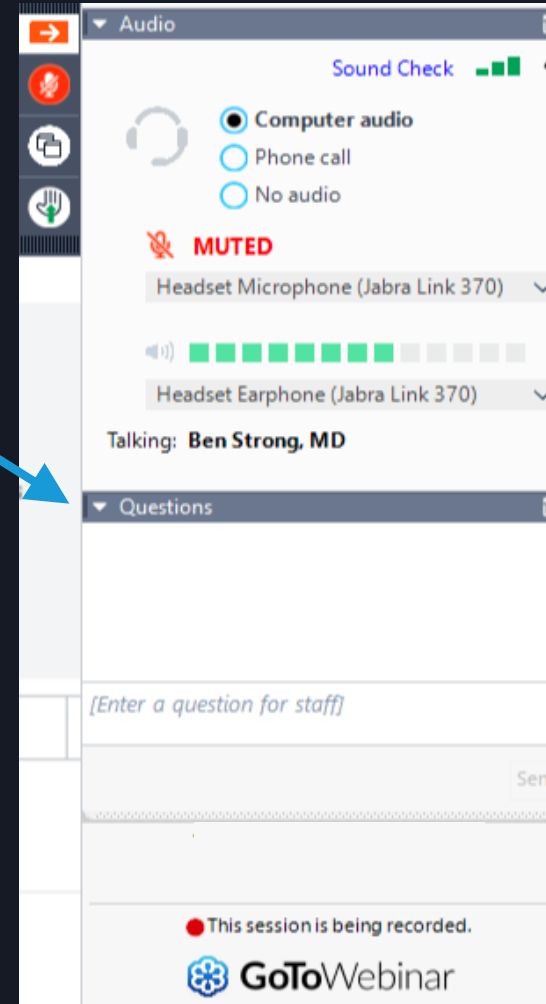


**Benjamin W. Strong, MD**  
Chief Medical Officer  
vRad

# Live Q&A and Audience Polls

Ask questions in the GoToWebinar Toolbar at the right of your screen

Expand the GoToWebinar Toolbar if it's minimized





# COVID-19 Impact on Imaging Volume

Volume analysis

Memorial weekend

Local response

Clinical trending

Q&A



**Joe Schmugge**

VP of Operations  
vRad

# COVID-19 Impact on Imaging Volume



Regional Demand

Modality Trend

Time-of-Day

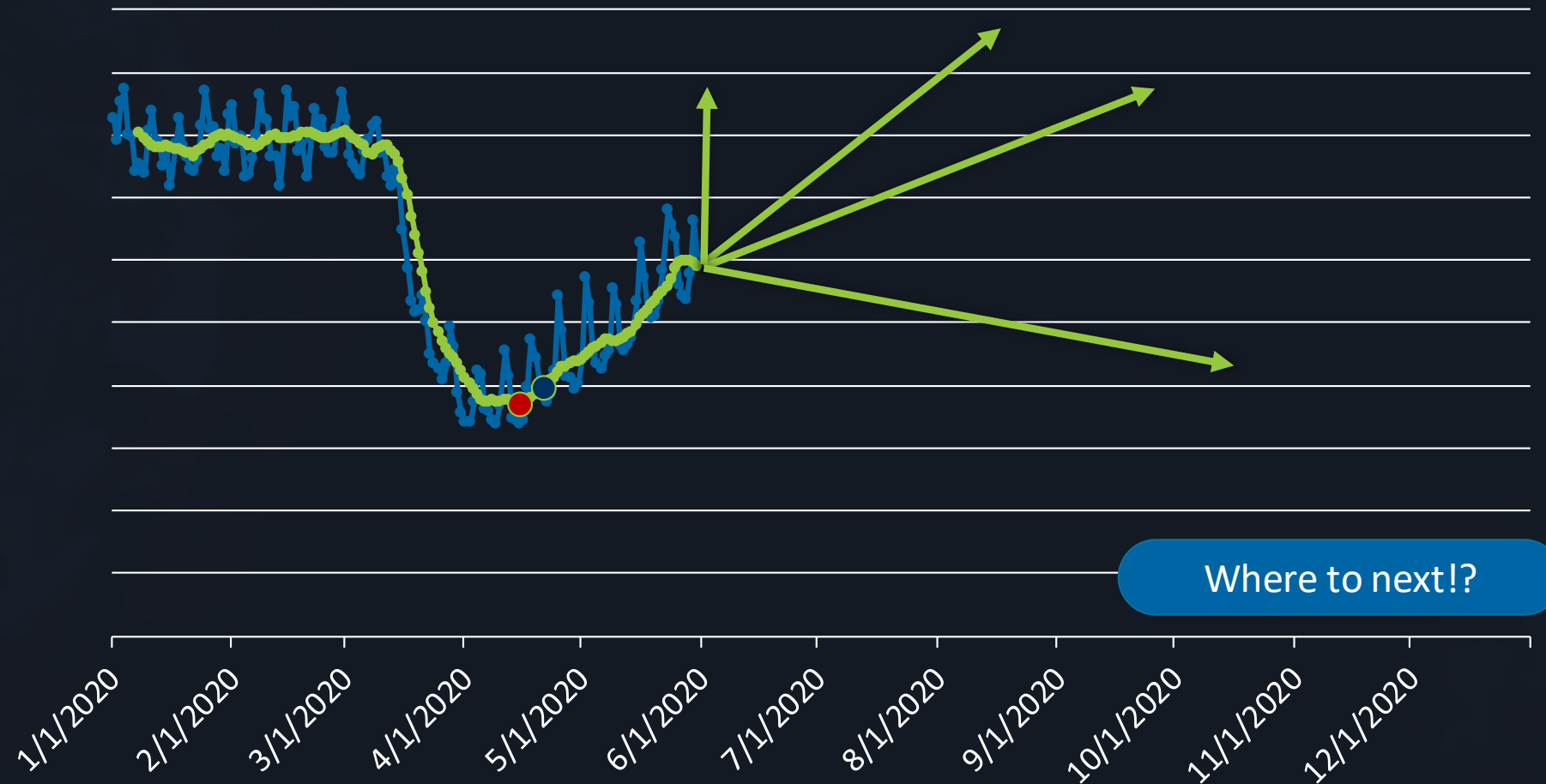
Patient Age

Patient Gender

Demand Trending

## National Demand

—●— 24hr Demand    —●— T-7 Day Demand

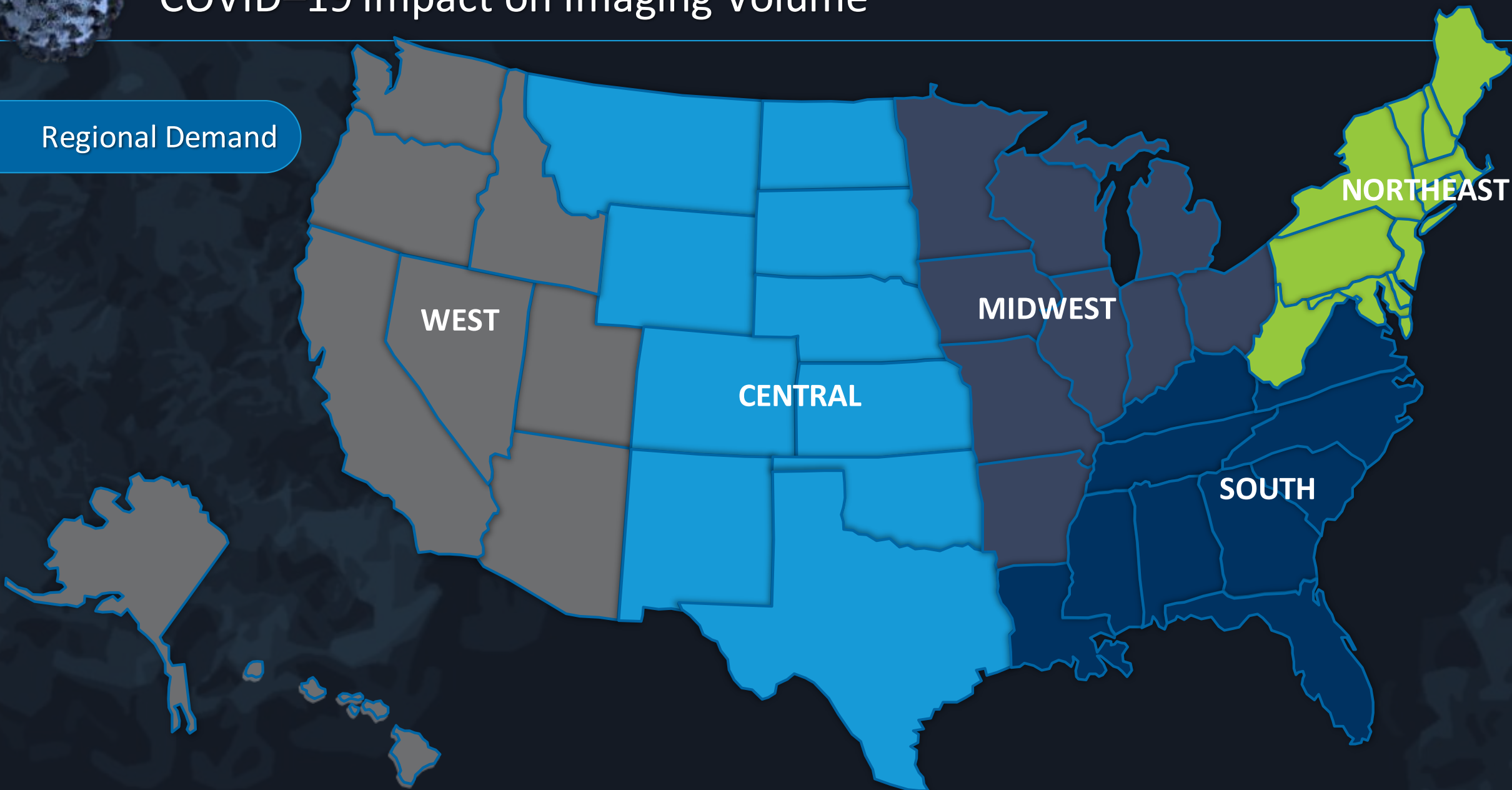


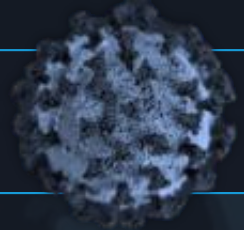
Where to next!?



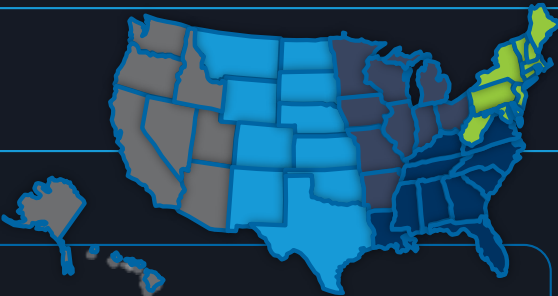
# COVID-19 Impact on Imaging Volume

Regional Demand





# COVID-19 Impact on Imaging Volume



Regional Demand

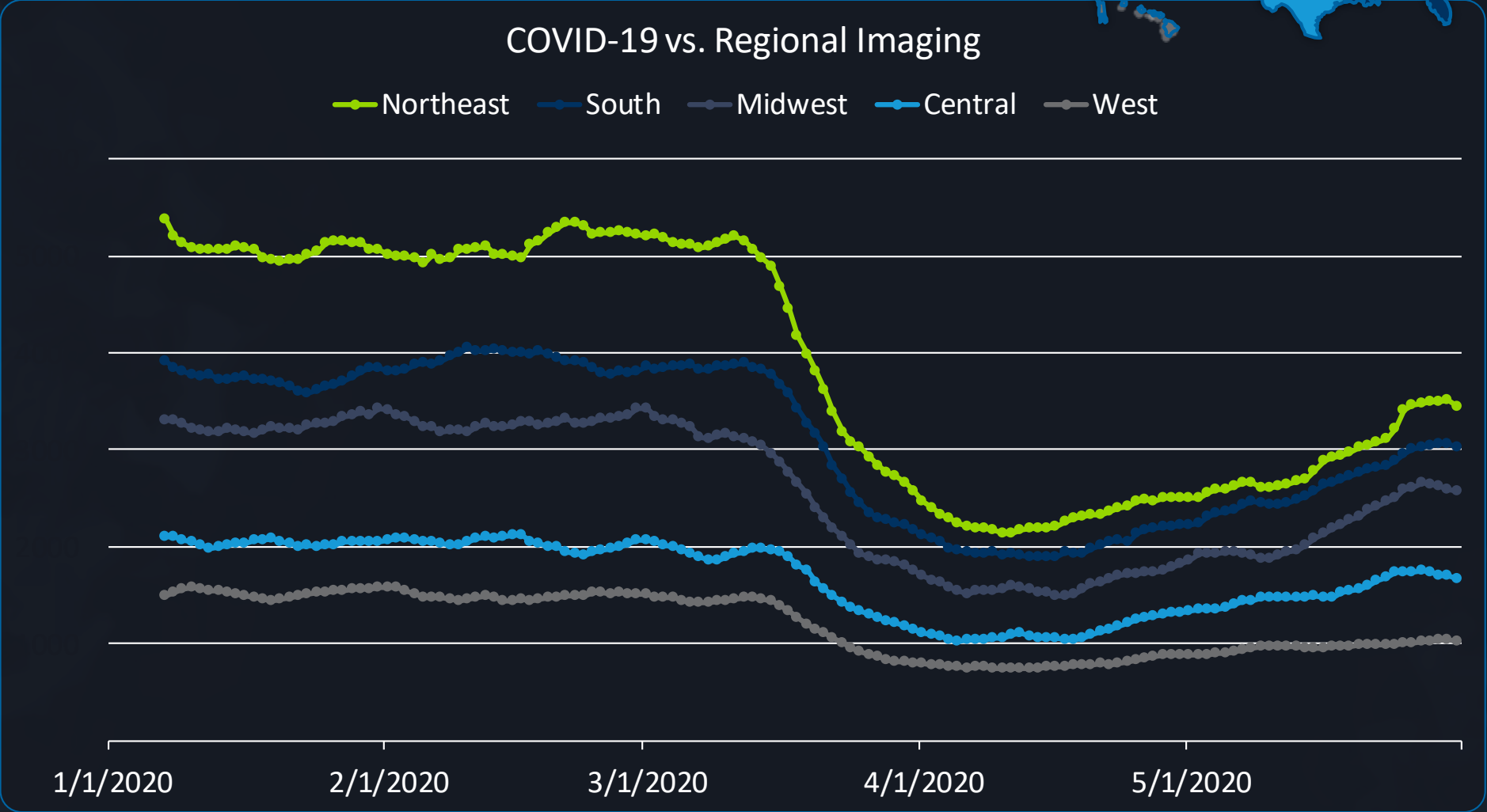
Modality Trend

Time-of-Day

Patient Age

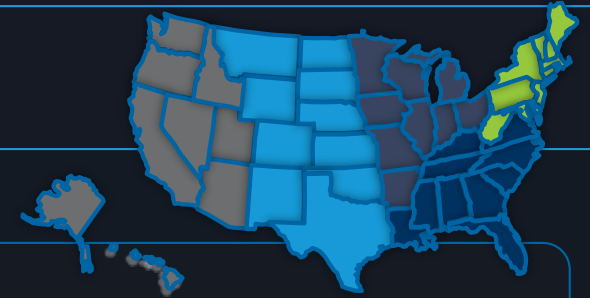
Patient Gender

Demand Trending



# COVID-19 Impact on Imaging Volume

Audience  
Poll



Regional Demand

Modality Trend

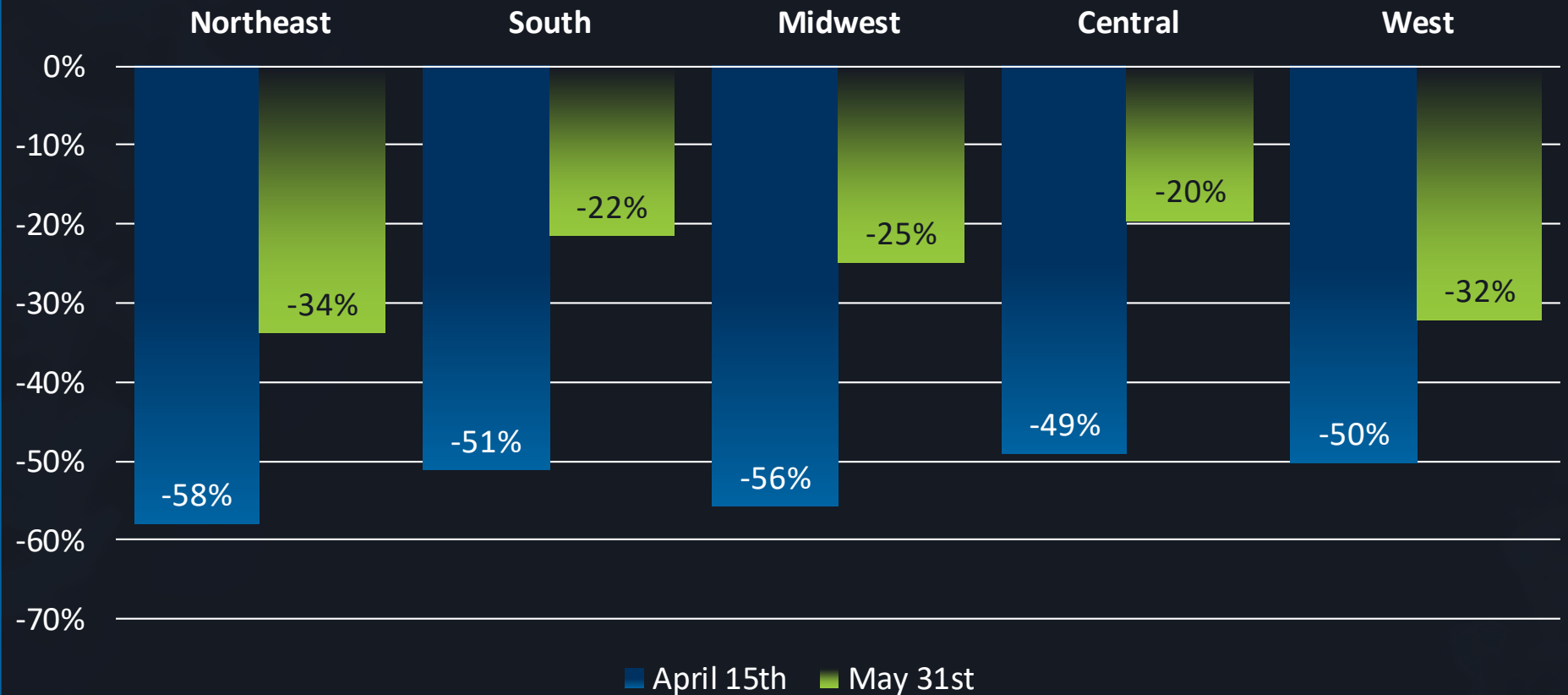
Time-of-Day

Patient Age

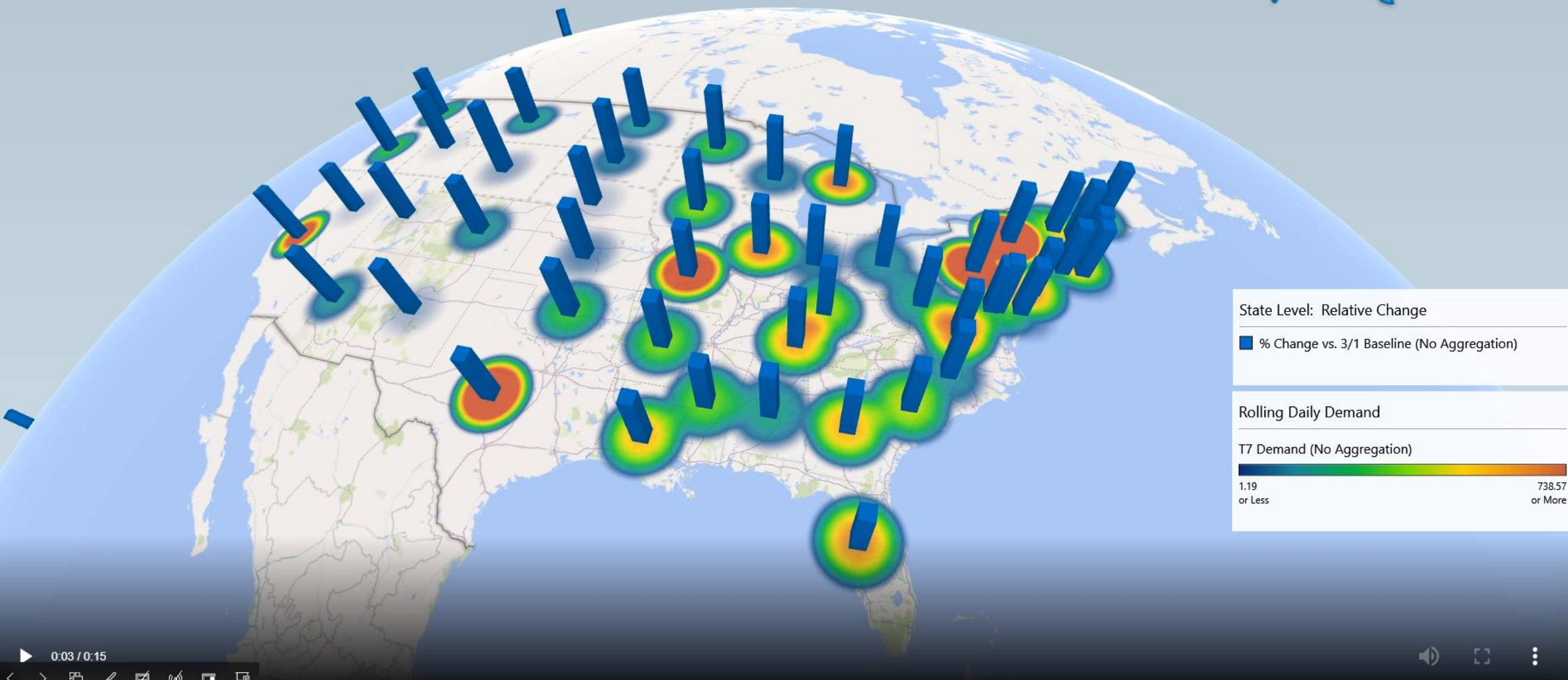
Patient Gender

Demand Trending

## Regional Impact: Post Covid-19







# COVID-19 Impact on Imaging Volume

Relative to all Imaging

Regional Demand

Modality Trend

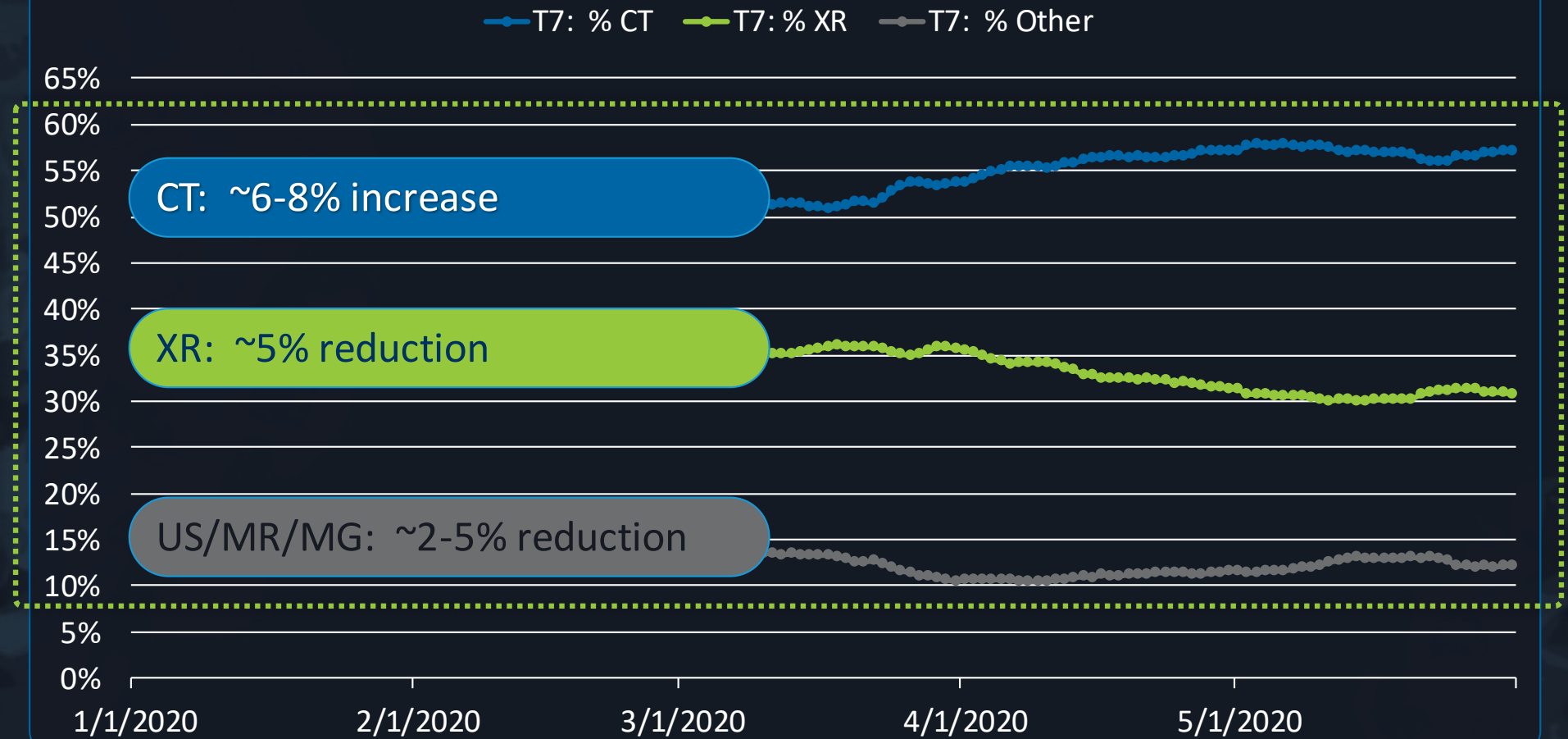
Time-of-Day

Patient Age

Patient Gender

Demand Trending

## Core Modality Mix



# COVID-19 Impact on Imaging Volume

Relative to all Imaging

Regional Demand

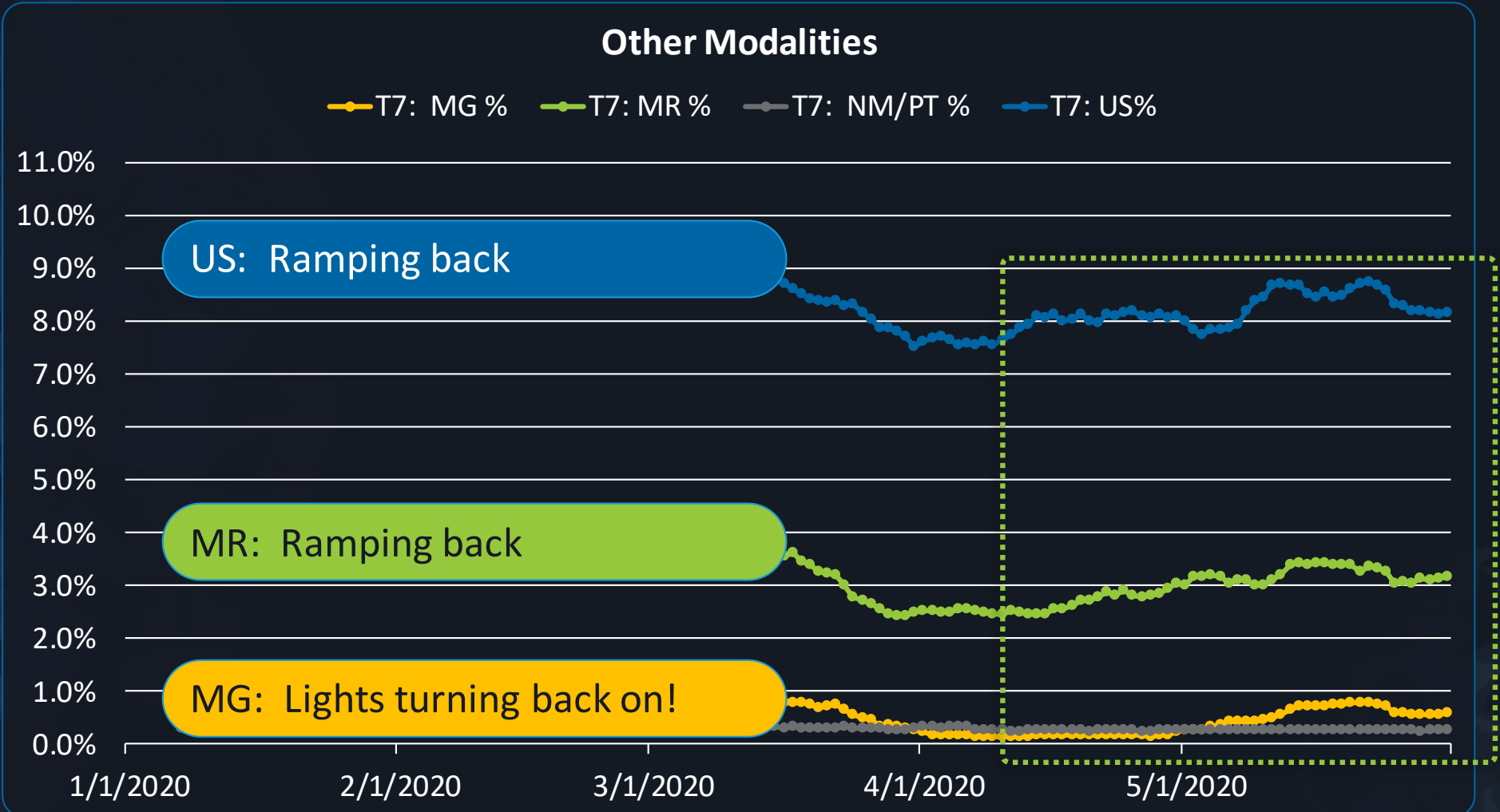
Modality Trend

Time-of-Day

Patient Age

Patient Gender

Demand Trending



# COVID-19 Impact on Imaging Volume

Regional Demand

Modality Trend

Time-of-Day

Patient Age

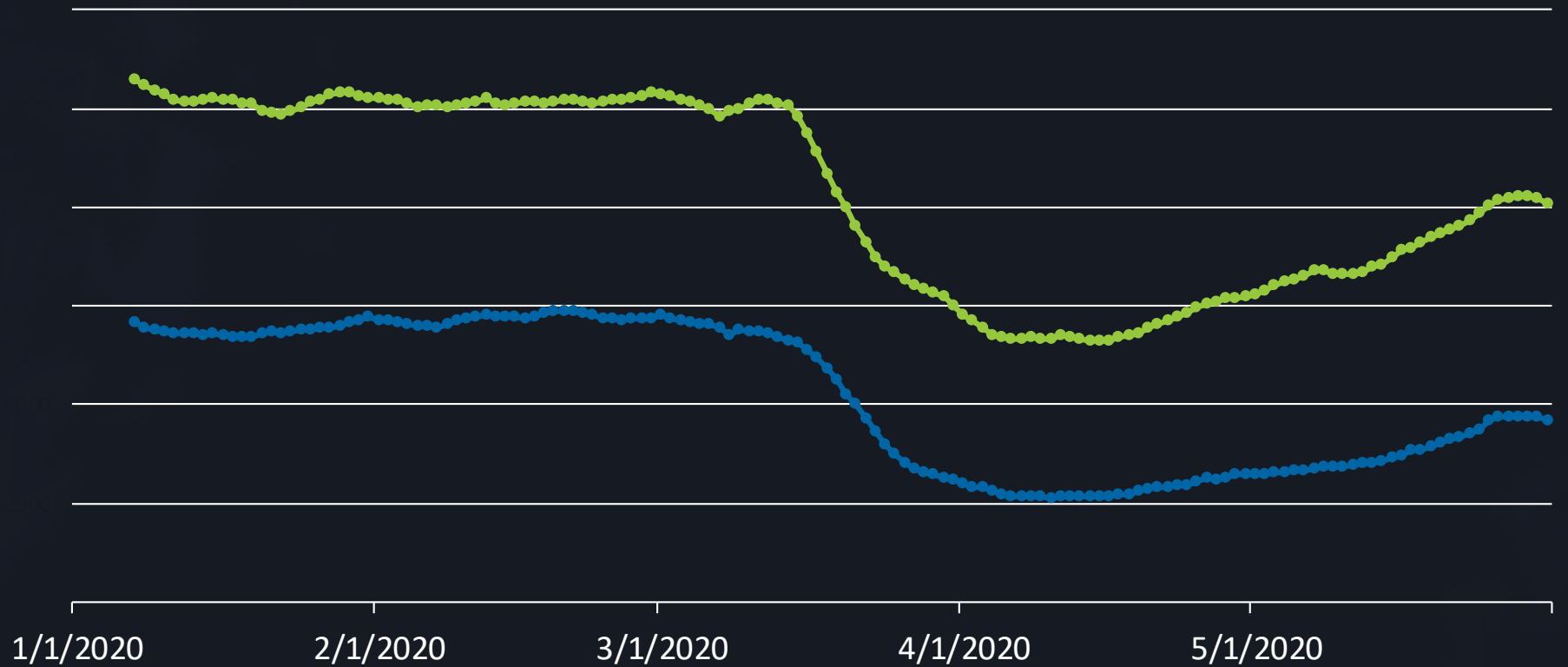
Patient Gender

Demand Trending

## Day vs. Night Impact

Absolute Study Count (T7 Avg. Demand)

Day, 7a - 7p Night, 7p - 7a





# COVID-19 Impact on Imaging Volume

Regional Demand

Modality Trend

Time-of-Day

Patient Age

Patient Gender

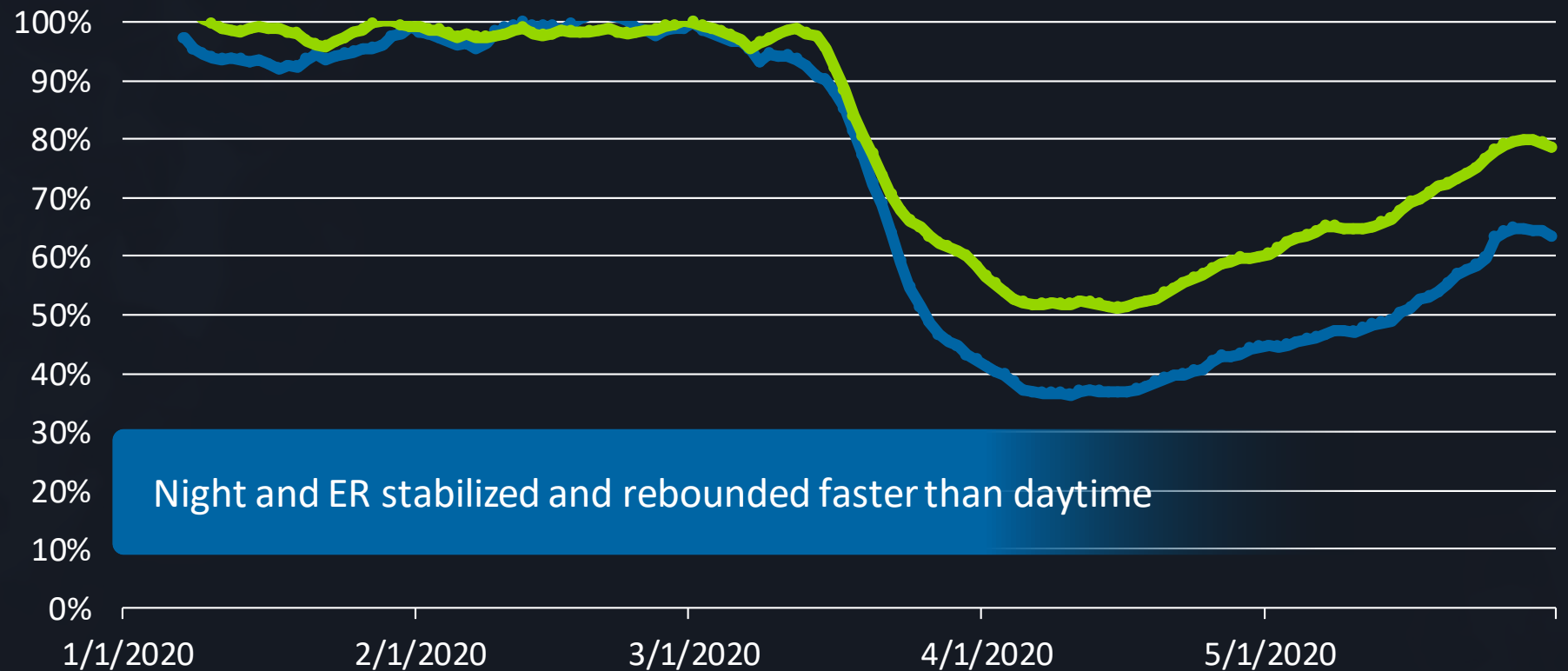
Demand Trending

## Day vs. Night Impact

% Pullback vs. 3/1 baseline (T7 Avg. Demand)

Day, 7a - 7p

Night, 7p - 7a



Night and ER stabilized and rebounded faster than daytime



# COVID-19 Impact on Imaging Volume

Regional Demand

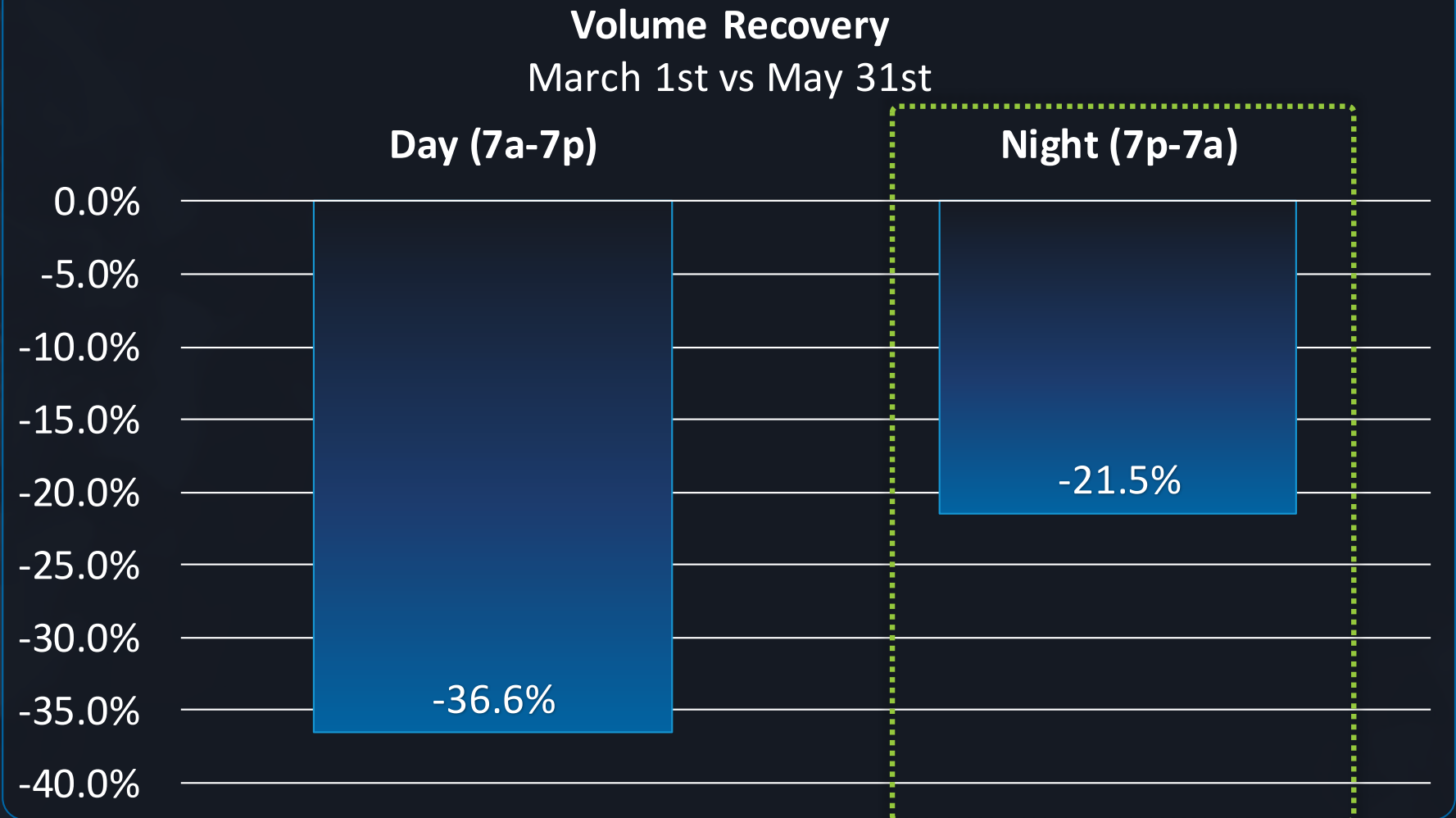
Modality Trend

Time-of-Day

Patient Age

Patient Gender

Demand Trending



# COVID-19 Impact on Imaging Volume

Regional Demand

Modality Trend

Time-of-Day

Patient Age

Patient Gender

Demand Trending

Health

## Young and middle-aged people, barely sick with covid-19, are dying of strokes

Doctors sound alarm about patients in their 30s and 40s left debilitated or dead. Some didn't even know they were infected.



People walk around Times Square as screens are illuminated as part of the "Light It Blue" initiative to honor health care workers, during the outbreak of the coronavirus disease in New York City on April 23, 2020. (Eduardo Munoz/Reuters)

By [Ariana Eunjung Cha](#)

April 25, 2020 at 1:12 p.m. CDT

HEALTH NEWS

✓ Fact Checked

## Why COVID-19 is Hitting Men Harder Than Women



Experts say biology as well as behavior may be among the reasons more men than women are developing COVID-19 and dying from the disease. Getty Images

- Several studies have shown that more men are dying from COVID-19 than women.
- Experts say part of the reason is women tend to have stronger immune systems than men.
- They add that men also tend to engage in more risky behavior such as ignoring physical distancing, and they don't take symptoms as seriously.

# COVID-19 Impact on Imaging Volume

Regional Demand

Modality Trend

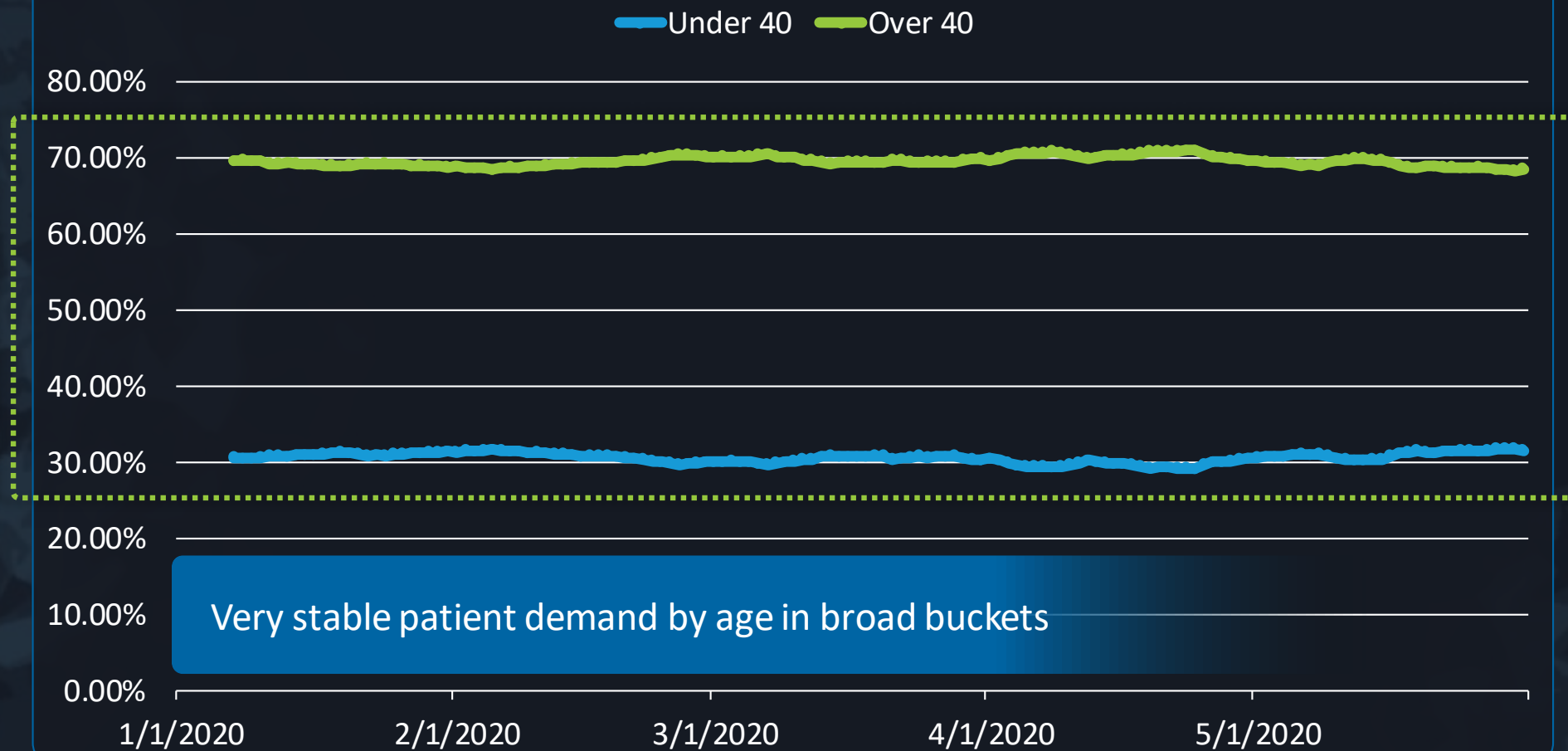
Time-of-Day

Patient Age

Patient Gender

Demand Trending

Patient Age: Demand Trending





# COVID-19 Impact on Imaging Volume

Regional Demand

Modality Trend

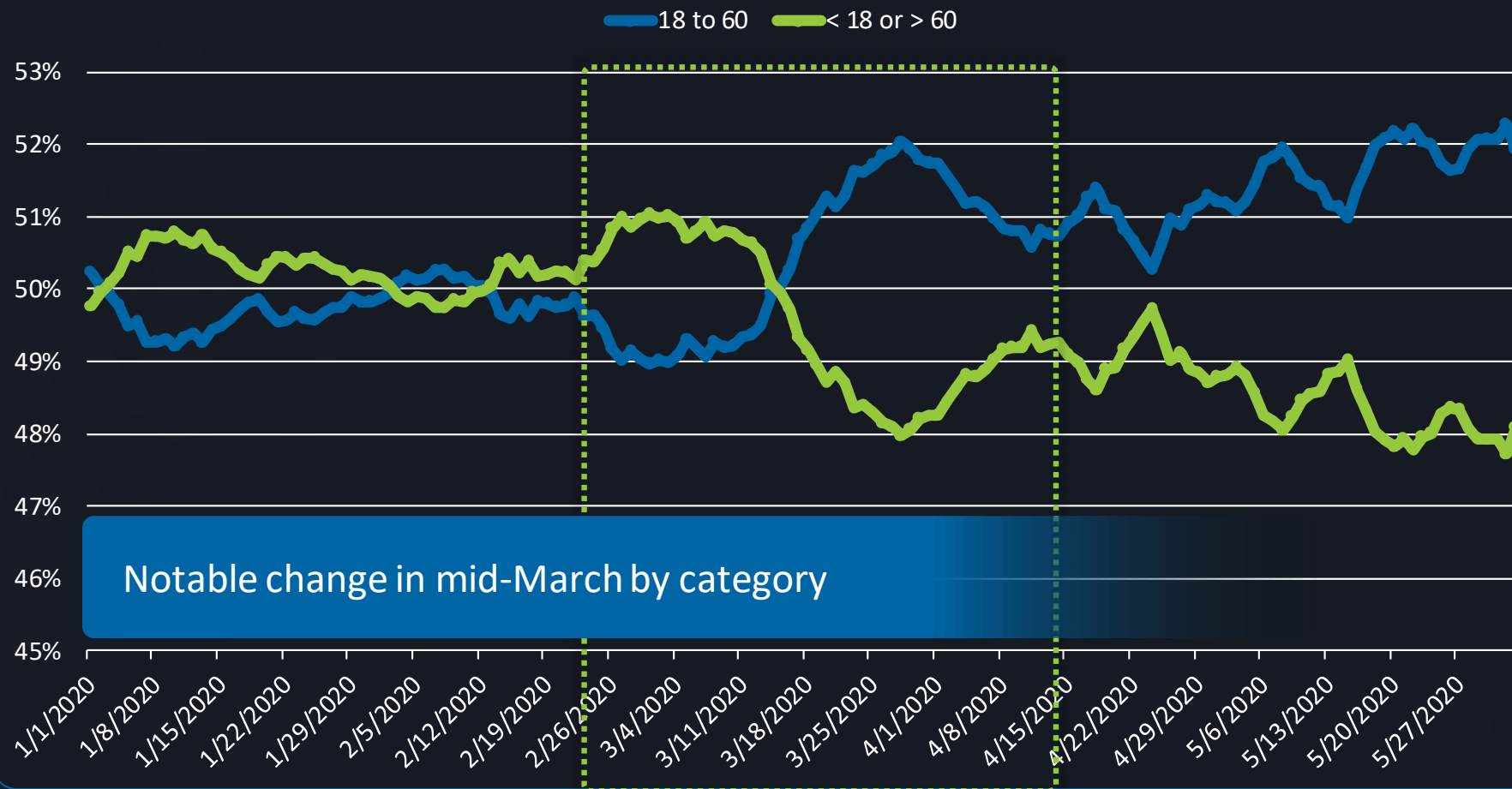
Time-of-Day

Patient Age

Patient Gender

Demand Trending

## Patient Age vs. Radiology Imaging



# COVID-19 Impact on Imaging Volume

Regional Demand

Modality Trend

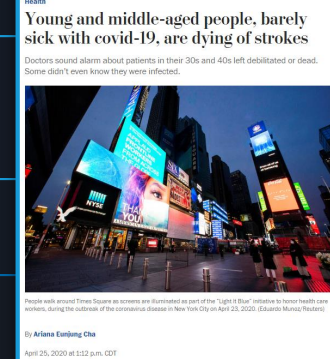
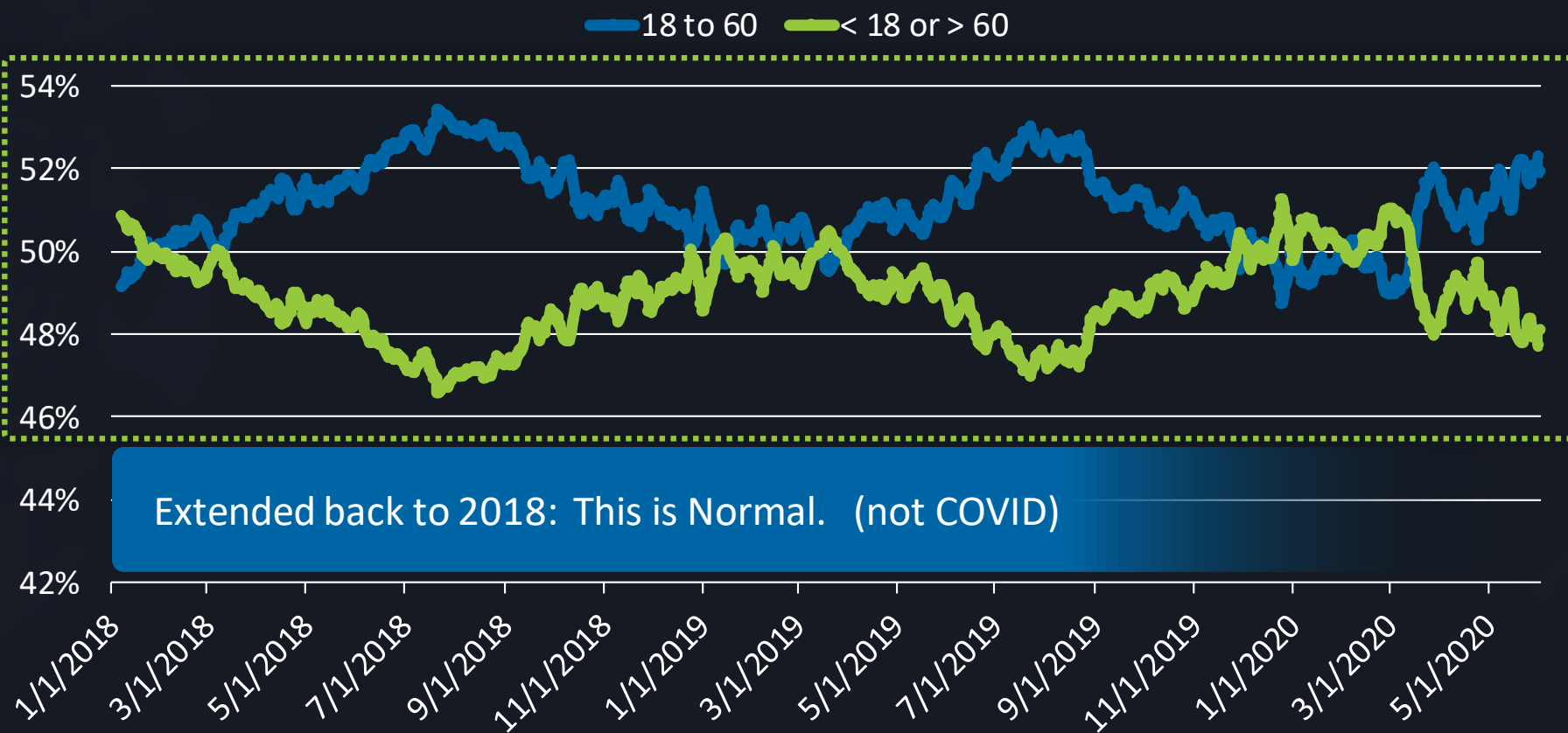
Time-of-Day

Patient Age

Patient Gender

Demand Trending

Patient Age vs. Radiology Imaging  
(With Seasonality)





# COVID-19 Impact on Imaging Volume

Regional Demand

Modality Trend

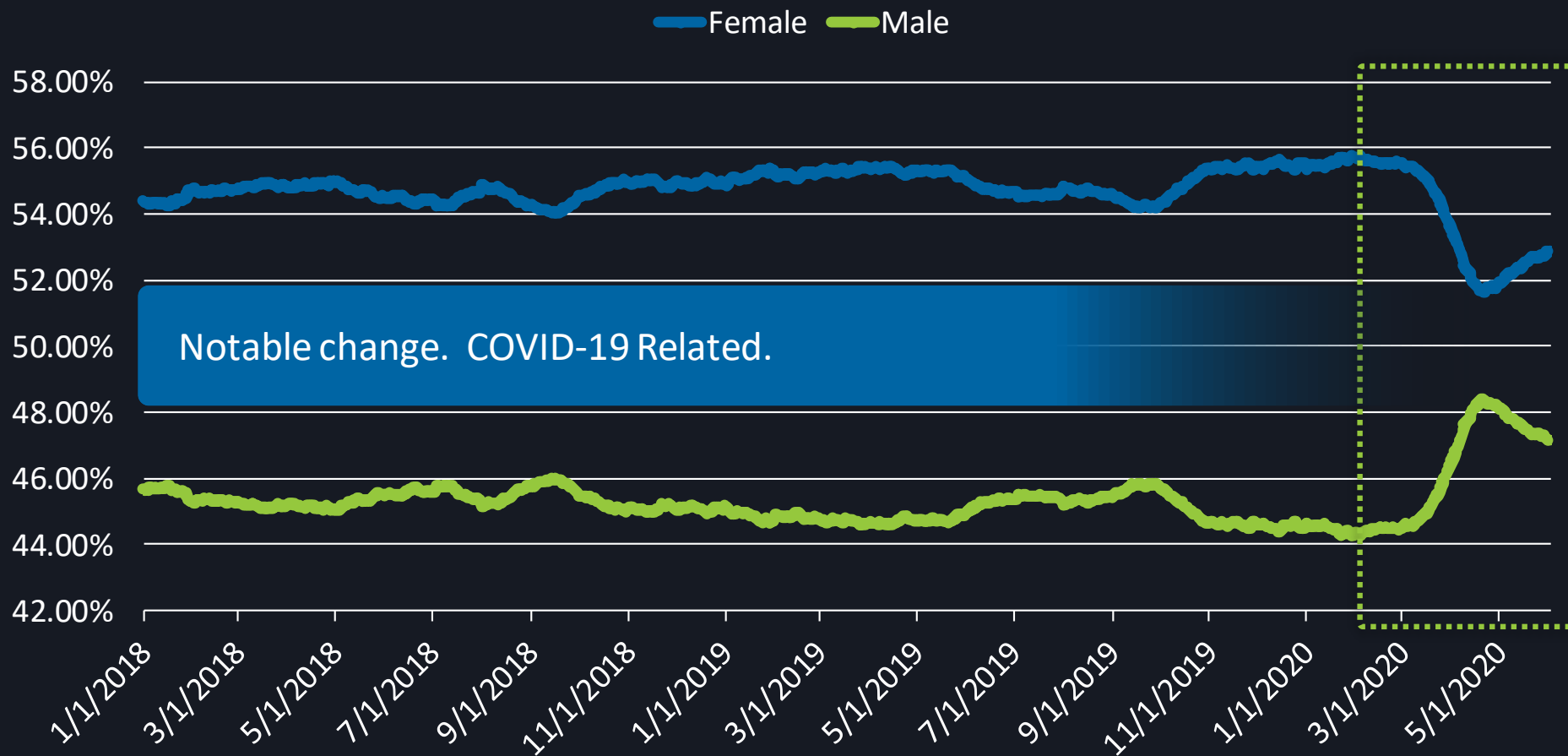
Time-of-Day

Patient Age

Patient Gender

Demand Trending

## Radiology Imaging by Gender



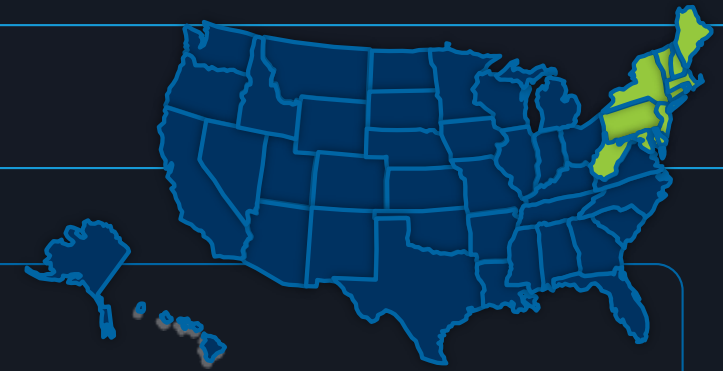
Young and middle-aged people, hardly sick with covid-19, are dying of strokes



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# COVID-19 Impact on Imaging Volume



Regional Demand

Modality Trend

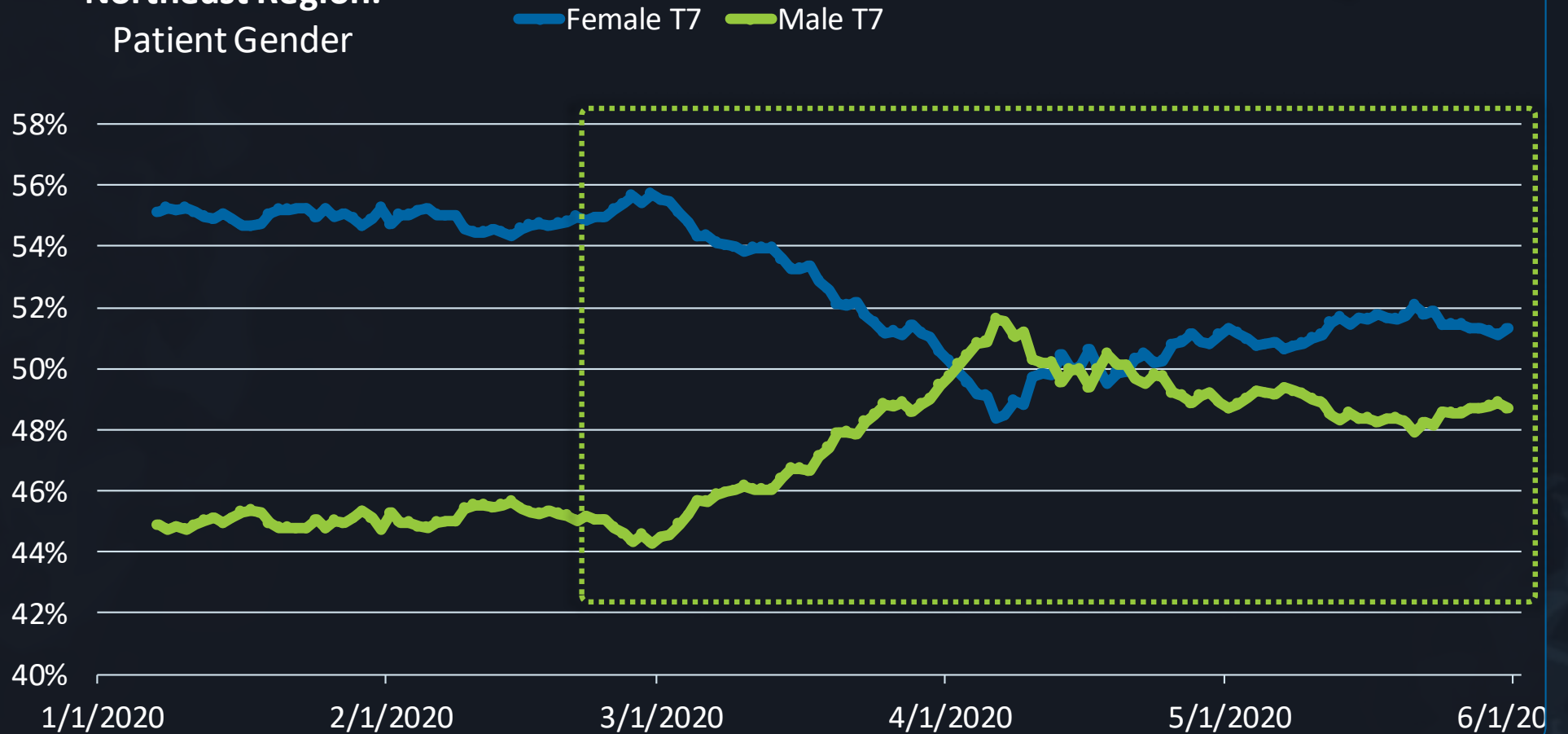
Time-of-Day

Patient Age

Patient Gender

Demand Trending

**Northeast Region:**  
Patient Gender



# COVID-19 Impact on Imaging Volume

Regional Demand

Modality Trend

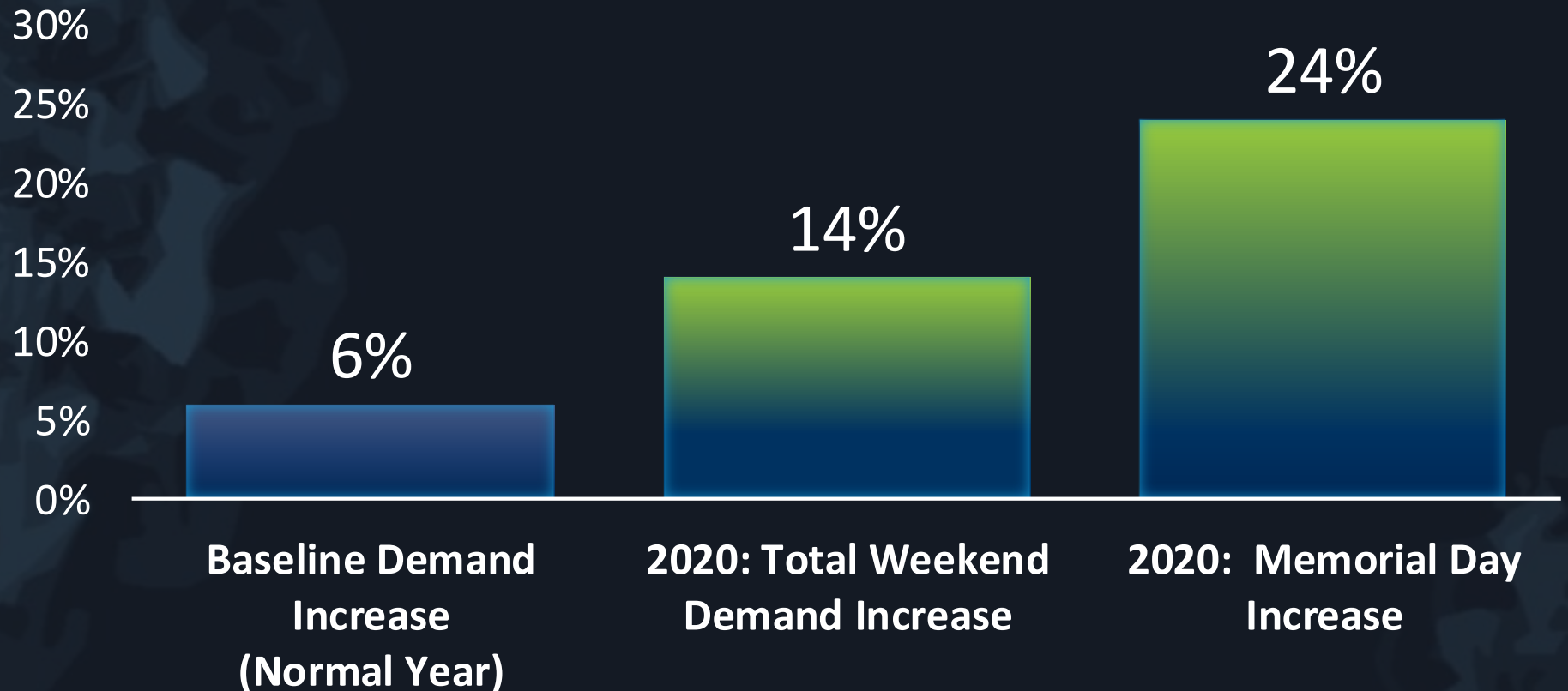
Time-of-Day

Patient Age

Patient Gender

Demand Trending

## MEMORIAL DAY: HOLIDAY DEMAND REVIEW



# COVID-19 Impact on Imaging Volume

Regional Demand

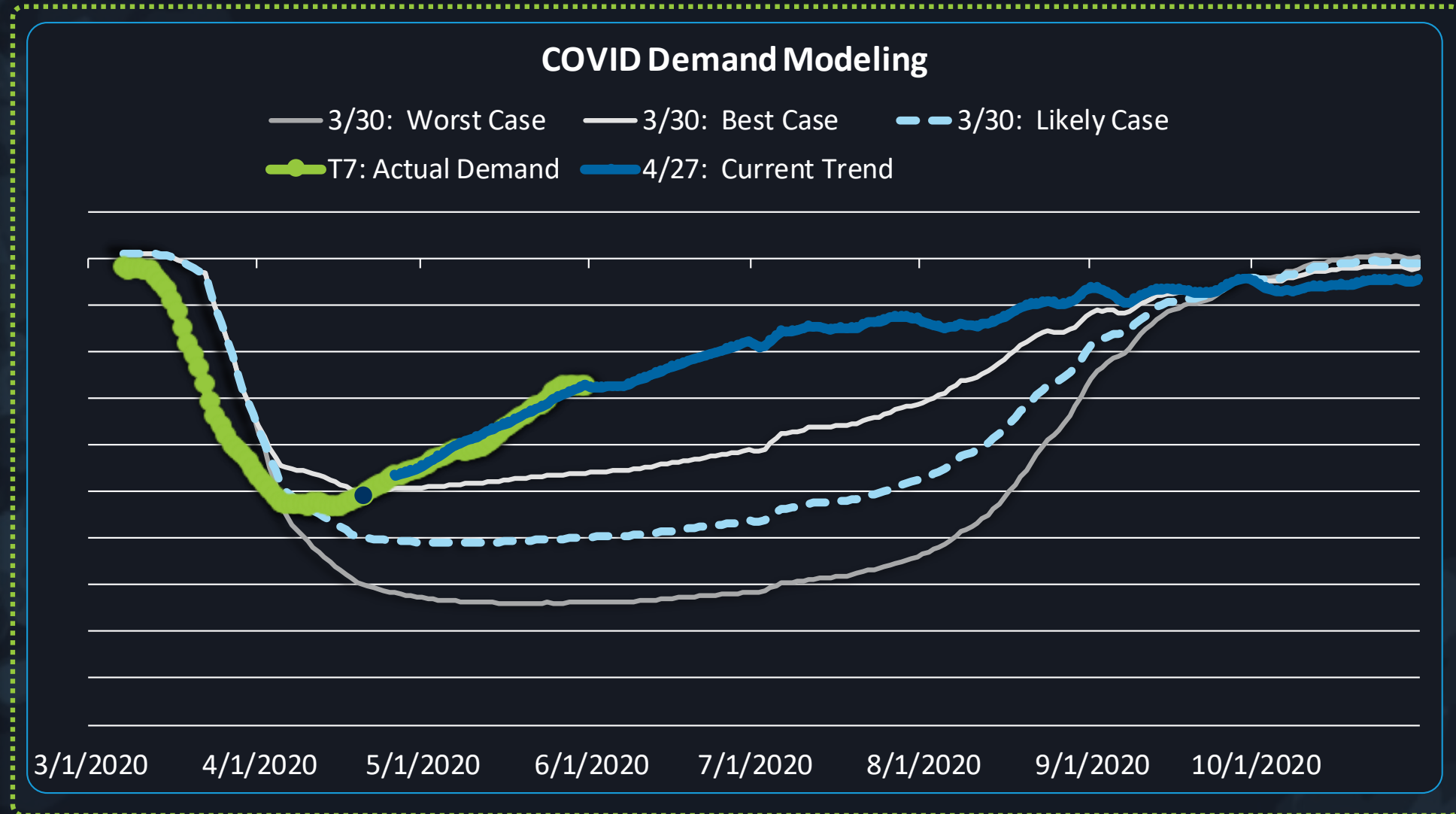
Modality Trend

Time-of-Day

Patient Age

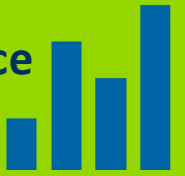
Patient Gender

Demand Trending



# COVID-19 Impact on Imaging Volume

Audience  
Poll



Regional Demand

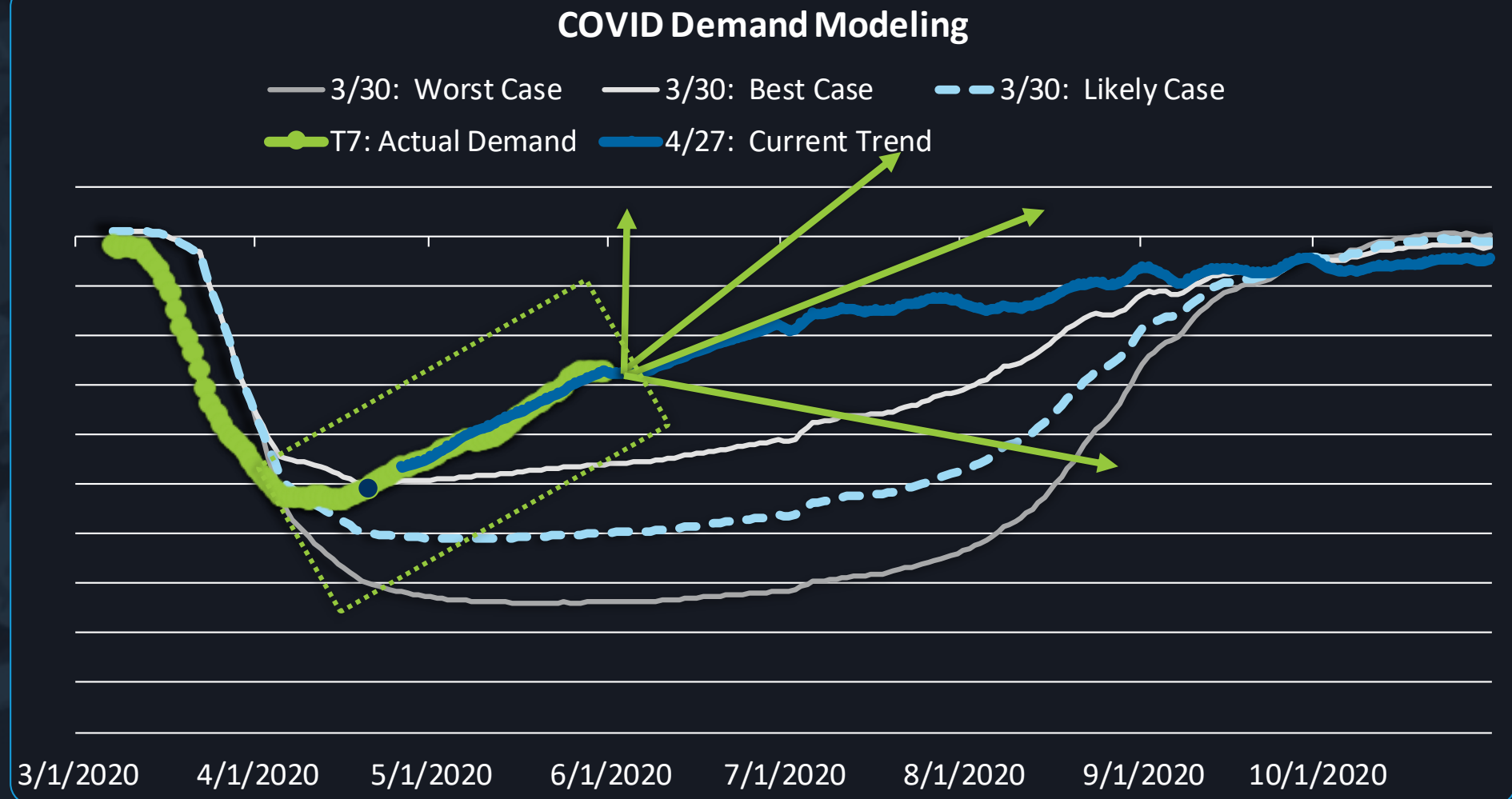
Modality Trend

Time-of-Day

Patient Age

Patient Gender

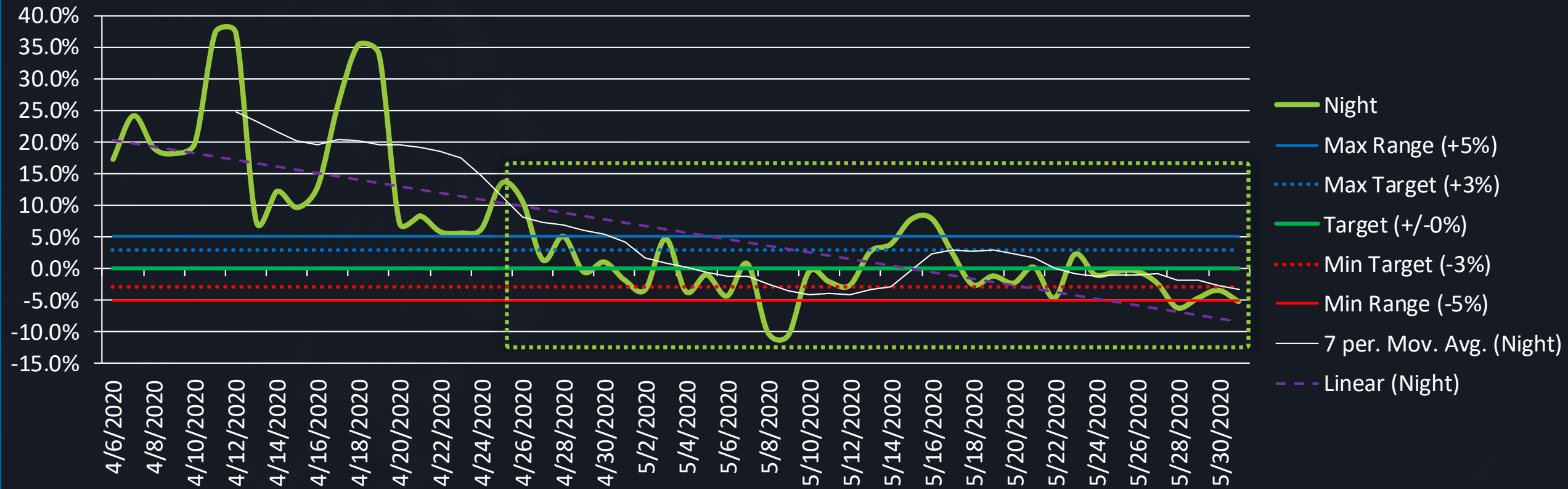
Demand Trending





# COVID-19 Impact on Imaging Volume

## Night Forecast Accuracy



Demand Trending



World Map



U.S. Map



Critical Trends

## COVID-19 United States Cases by County Johns Hopkins University

States/Territories

Please select from list

County (or Equivalent)

Please select from list

## Top 50 Confirmed Cases by County

18,496 confirmed  
Cook

11,373 confirmed  
Queens

64,011 confirmed  
Los Angeles

65,421 confirmed  
Kings

45,428 confirmed  
Bronx

45,479 confirmed  
Nassau

39,796 confirmed  
Suffolk

31,553 confirmed  
Westchester

25,092 confirmed  
New York

22,081 confirmed  
Philadelphia

22,224 confirmed  
Middlesex

20,446 confirmed  
Wayne

13,001 confirmed  
Hudson

10,581 confirmed  
Suffolk

10,382 confirmed  
Bergen

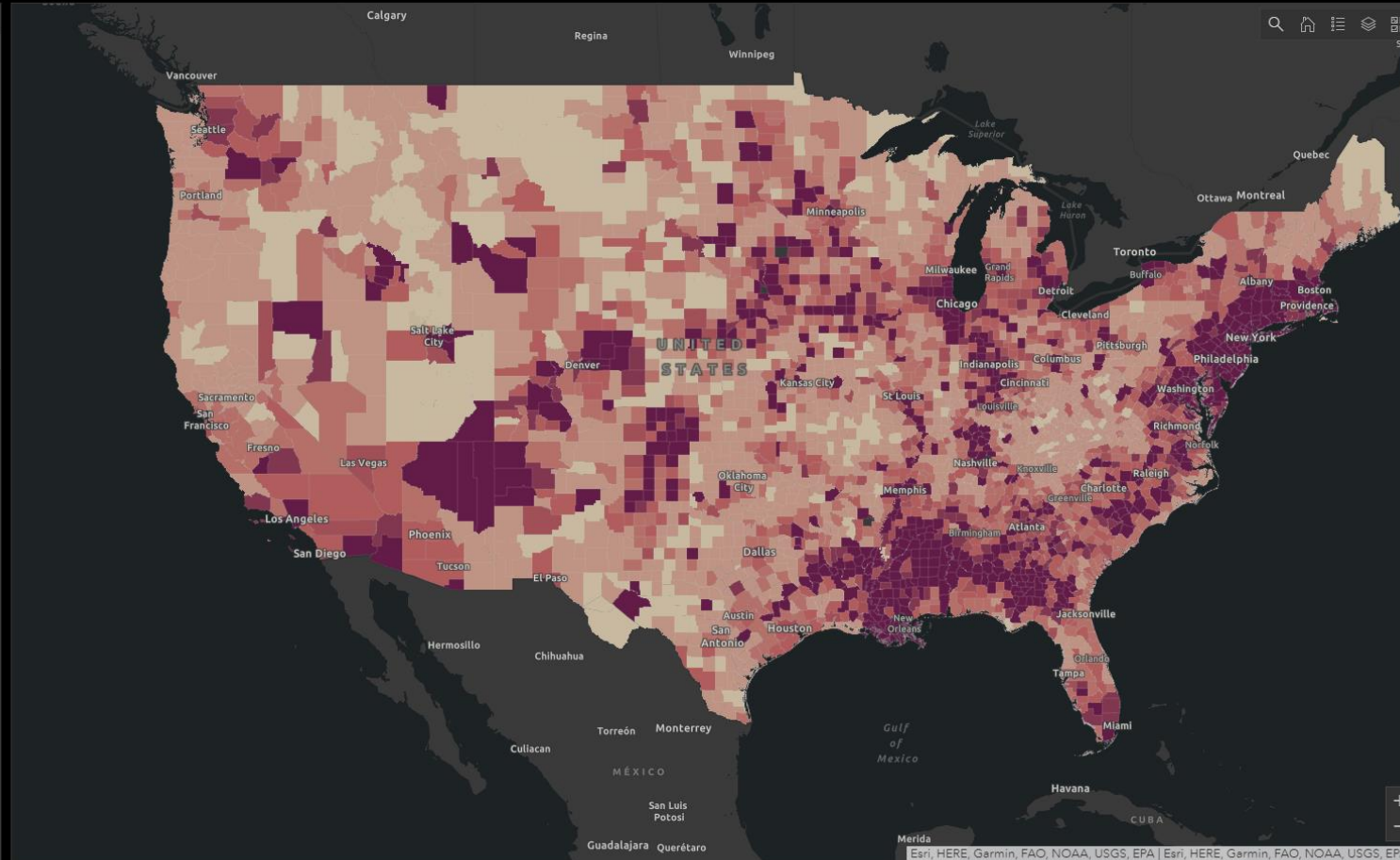
10,139 confirmed  
Miami-Dade

17,733 confirmed  
Essex

15,200 confirmed  
Passaic

11,477 confirmed  
Middlesex

10,050 confirmed  
Union



Confirmed by Population

Confirmed

Deaths

Fatality Rate

Data is updated once per day to allow the system to pull county-level data. For the most up-to-date confirmed cases and deaths, please see the COVID-19 Global Map. New York City borough deaths data does not include Probable COVID-19 deaths, as this data is not reported.

Map Visualization: [Centers for Civic Impact](#). Automation Support: [Esri Living Atlas team](#), [JHU APL](#), and [JHU Sheridan Libraries](#). Contact Us. [FAQ](#).

Data sources: Coronavirus COVID-19 Global Cases by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University; the Red Cross; the Census American Community Survey; the Bureau of Labor and Statistics. Downloadable database: [GitHub](#): [Here](#). Feature layer: [Here](#).

## Top 20 Counties by Number of Deaths

5,121 deaths  
Kings

5,060 deaths  
Queens

3,658 deaths  
Cook

3,568 deaths  
Bronx

2,463 deaths  
Wayne

2,386 deaths  
Los Angeles

2,300 deaths  
New York

2,125 deaths  
Nassau

1,906 deaths  
Suffolk

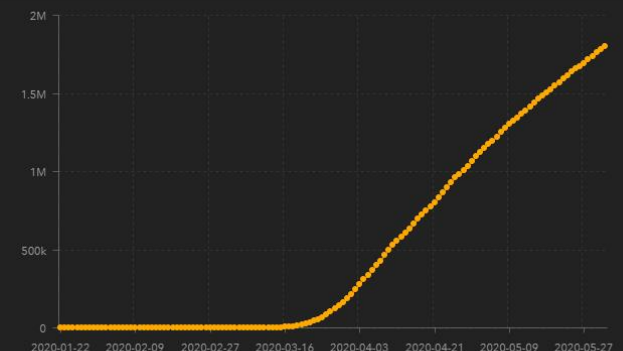
1,667 deaths  
Essex

1,650 deaths  
Middlesex

1,580 deaths  
Bergen

1,374 deaths  
Westchester

1,320 deaths  
Philadelphia



Confirmed

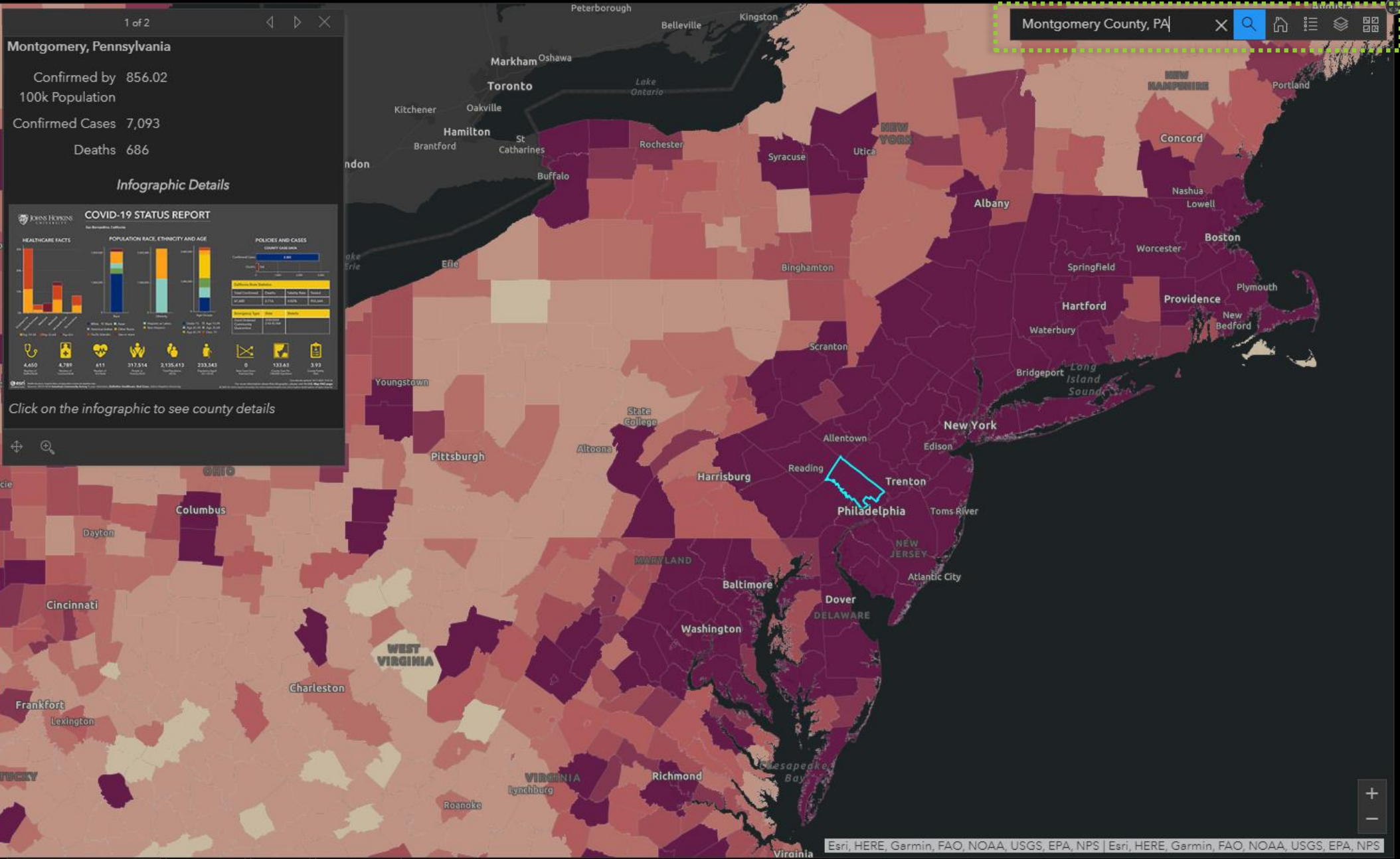
Deaths



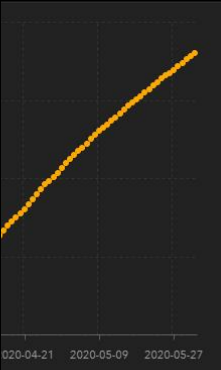
Top 50 Confirmed Cases by

- 18,496 confirmed Cook
- 14,177 confirmed Queens
- 14,011 confirmed Los Angeles
- 13,421 confirmed Kings
- 12,428 confirmed Bronx
- 12,477 confirmed Nassau
- 12,195 confirmed Suffolk
- 11,553 confirmed Westchester
- 11,092 confirmed New York
- 11,081 confirmed Philadelphia
- 11,224 confirmed Middlesex
- 10,446 confirmed Wayne
- 11,001 confirmed Hudson
- 11,081 confirmed Suffolk
- 10,502 confirmed Bergen
- 10,139 confirmed Miami-Dade
- 11,733 confirmed Essex
- 11,200 confirmed Passaic
- 11,177 confirmed Middlesex
- 11,050 confirmed Union

Last Updated on: 2020-06-01



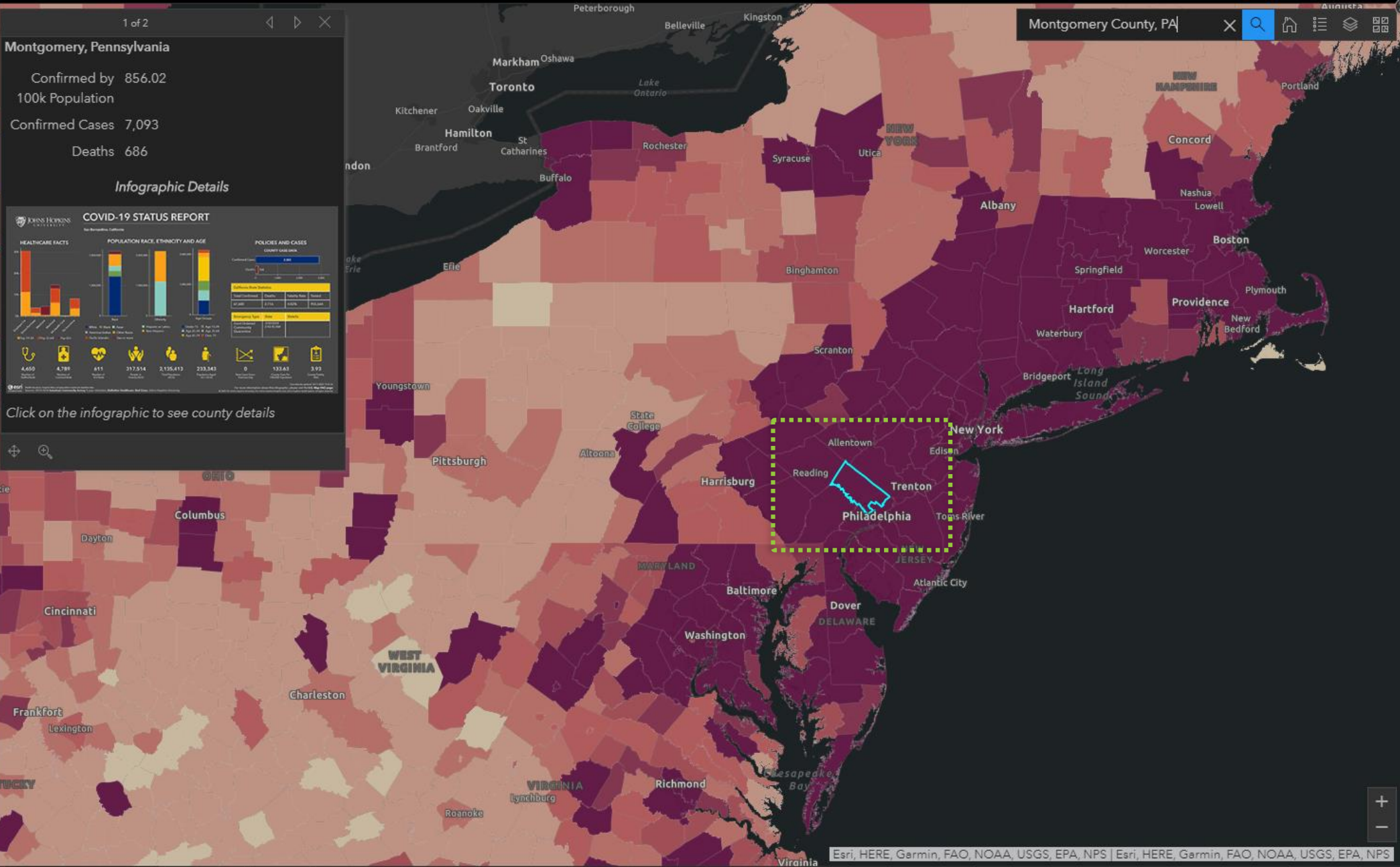
ivalent) Please select from list



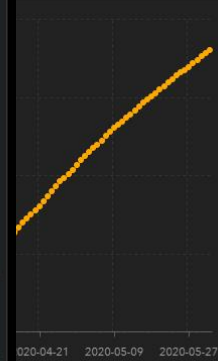
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- 2,224 confirmed Middlesex
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- 1,841 confirmed Hudson
- 1,681 confirmed Suffolk
- 1,582 confirmed Bergen
- 1,139 confirmed Miami-Dade
- 7,733 confirmed Essex
- 15,240 confirmed Passaic
- 11,177 confirmed Middlesex
- 10,850 confirmed Union

Last Updated on: 2020-06-01



ivalent) Please select from list



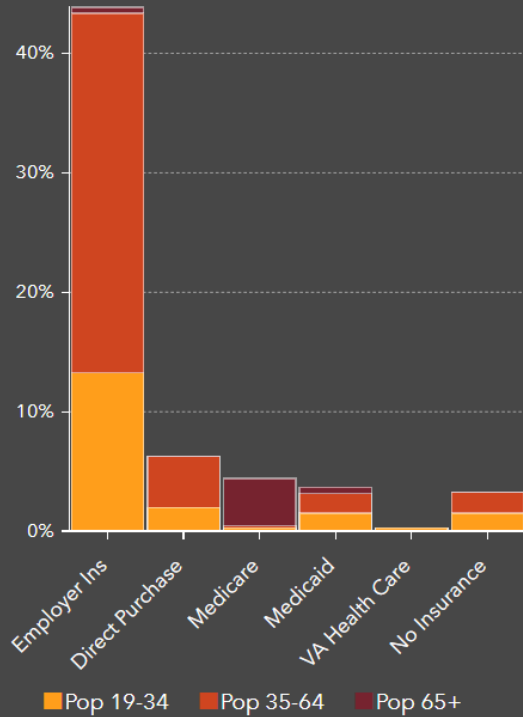




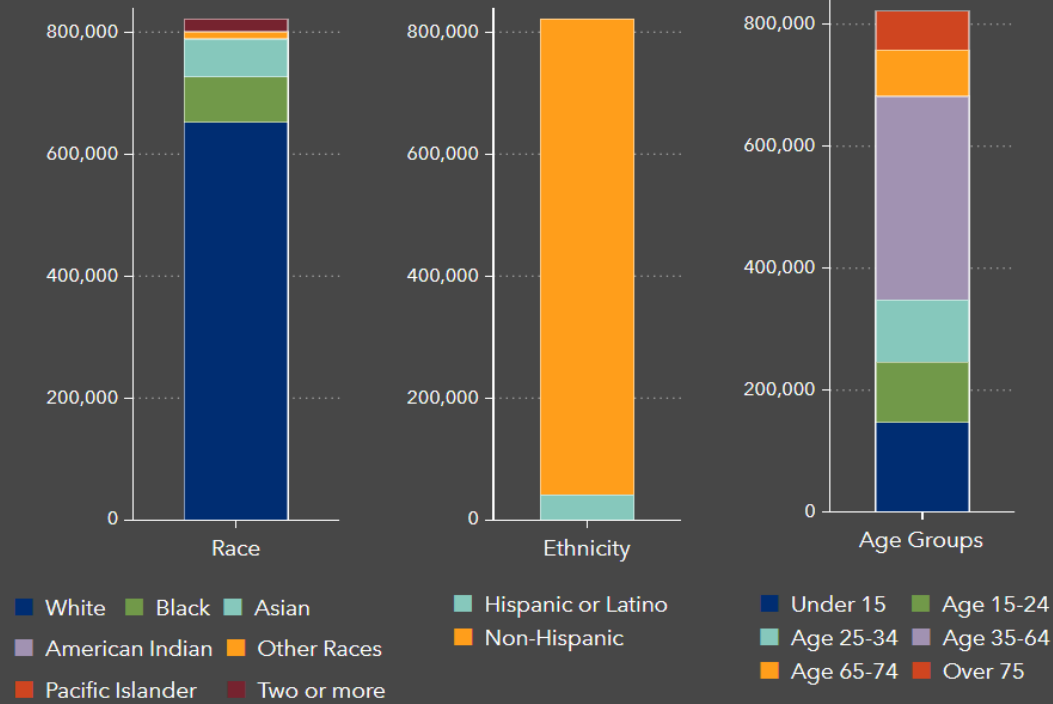
# COVID-19 STATUS REPORT

Montgomery, Pennsylvania

## HEALTHCARE FACTS

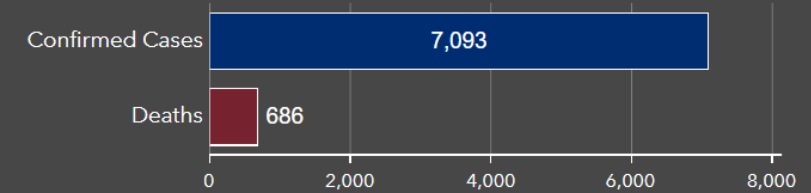


## POPULATION RACE, ETHNICITY AND AGE



## POLICIES AND CASES

### COUNTY CASE DATA



### Pennsylvania State Statistics

Total Confirmed	Deaths	Fatality Rate	Tested
76,646	5,567	7.26%	462,329

Emergency Type	Date	Details
Govt Ordered Community Quarantine	3/24/2020 1:14:57 AM	The Governor has declared stay at home orders for these counties effective 3/23



3,023

Number of Staffed Beds



3,200

Number of Licensed Beds



289

Number of ICU Beds



47,317

People in Poverty (ACS)



821,301

Total Population (ACS)



139,629

Population Aged 65+ (ACS)



32

New Cases Since Previous Day



856.02

County Case Per 100,000 Population



9.67

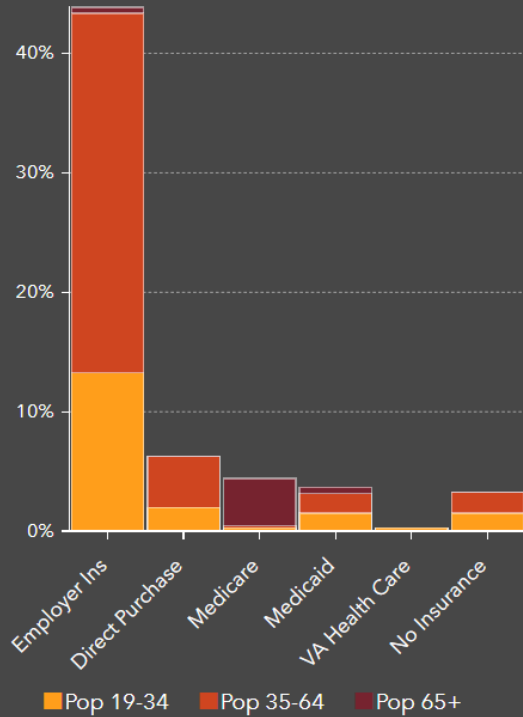
County Fatality Rate



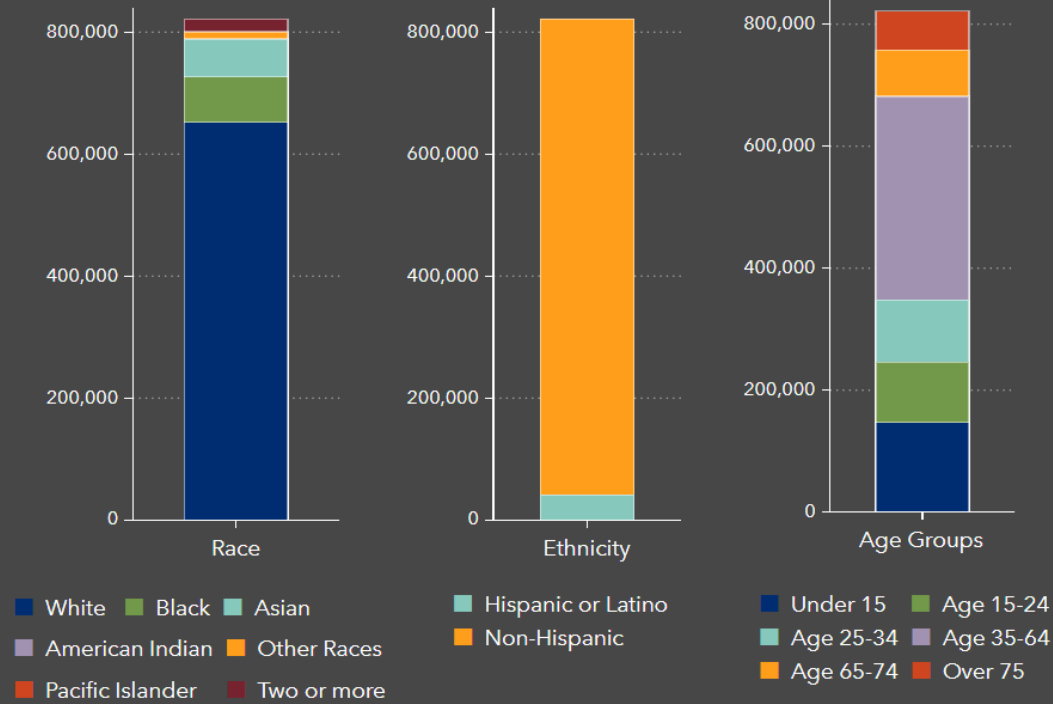
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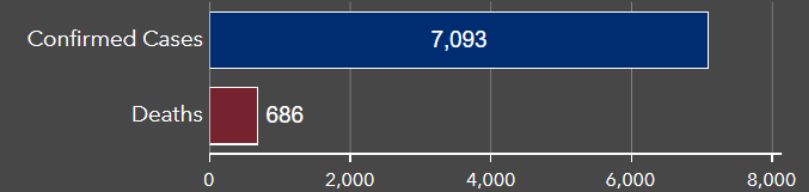


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# COVID-19 Local Response

Volume analysis

Memorial weekend

Local response

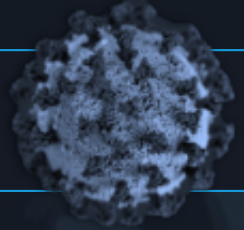
Clinical trending

Q&A



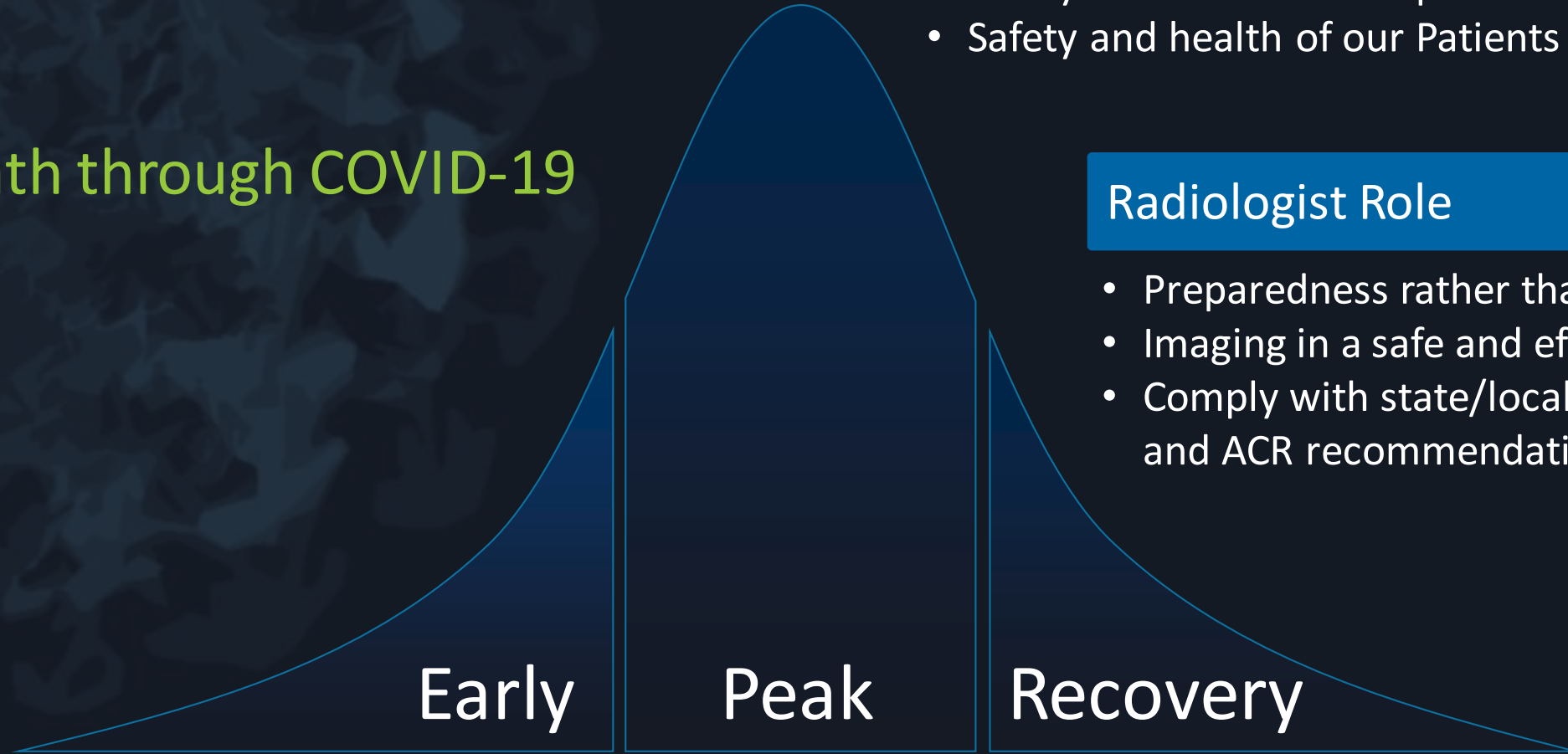
**Brian A. Solomon, MD**

Chairman and Medical Director  
Department of Radiology  
Pottstown Hospital, Tower Health



# COVID-19 Local Response

## Our path through COVID-19

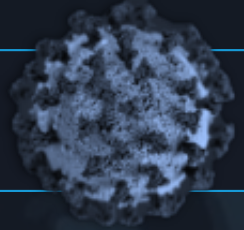


### Primary Concerns

- Safety and health of our personnel
- Safety and health of our Patients

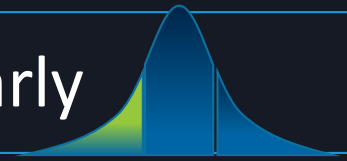
### Radiologist Role

- Preparedness rather than diagnosis
- Imaging in a safe and effective manner
- Comply with state/local regulations and ACR recommendations



# COVID-19 Local Response

Early



Social Distancing

Screening

Cleaning Policy

Schedule Changes

PPE

Early Challenges



# COVID-19 Local Response

Early

Social Distancing

Screening

Cleaning Policy

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PPE

Early Challenges

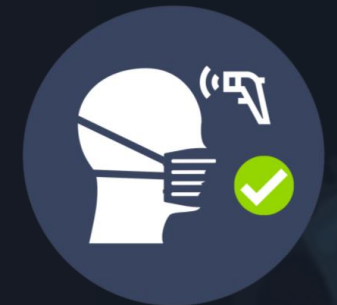


## Cancelled all screening procedures

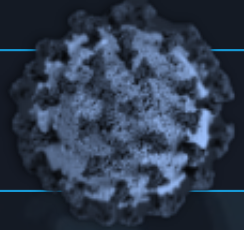
- Mammography; DEXA
- Lung cancer screening
- Second trimester screening US
- Elective Fluoroscopy

## Implemented PPE policies for COVID-19+ or suspected

- N95 Masks
- Gowns

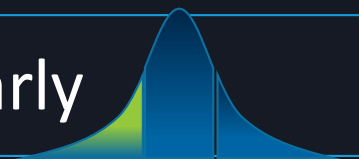






# COVID-19 Local Response

Early

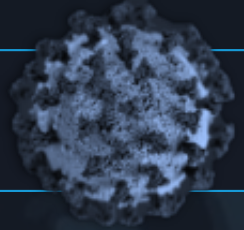


## Early Challenges

Lack of Testing

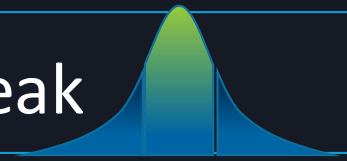
PPE Shortages





# COVID-19 Local Response

Peak



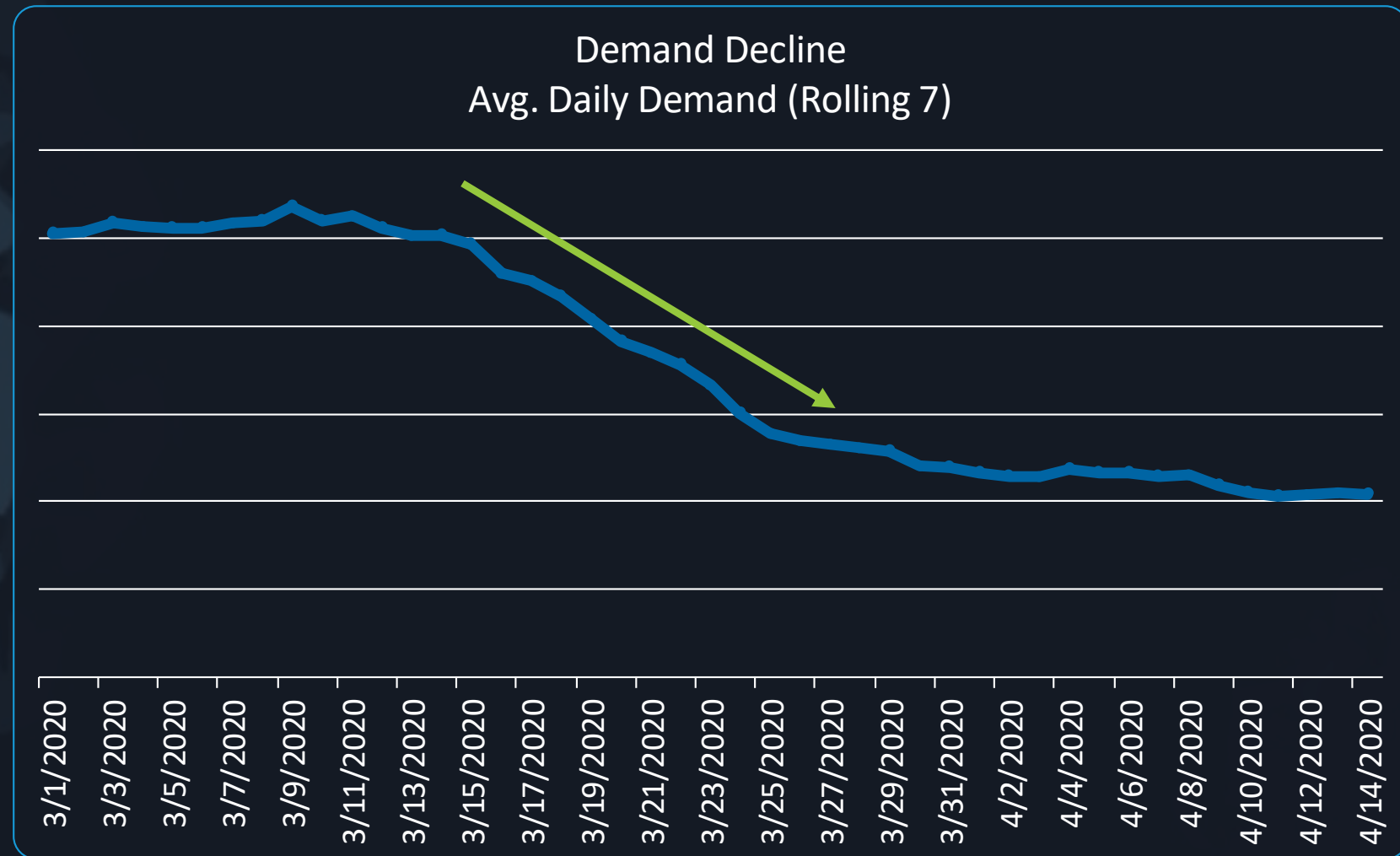
## In Pennsylvania

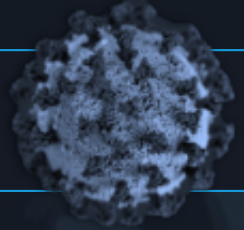
**April 9<sup>th</sup>**

- +1,900 confirmed COVID-19 cases

### Montgomery County

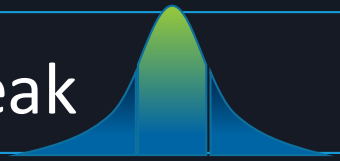
- 2<sup>nd</sup> most in the state
- 10% of ALL confirmed cases in the state





# COVID-19 Local Response

Peak

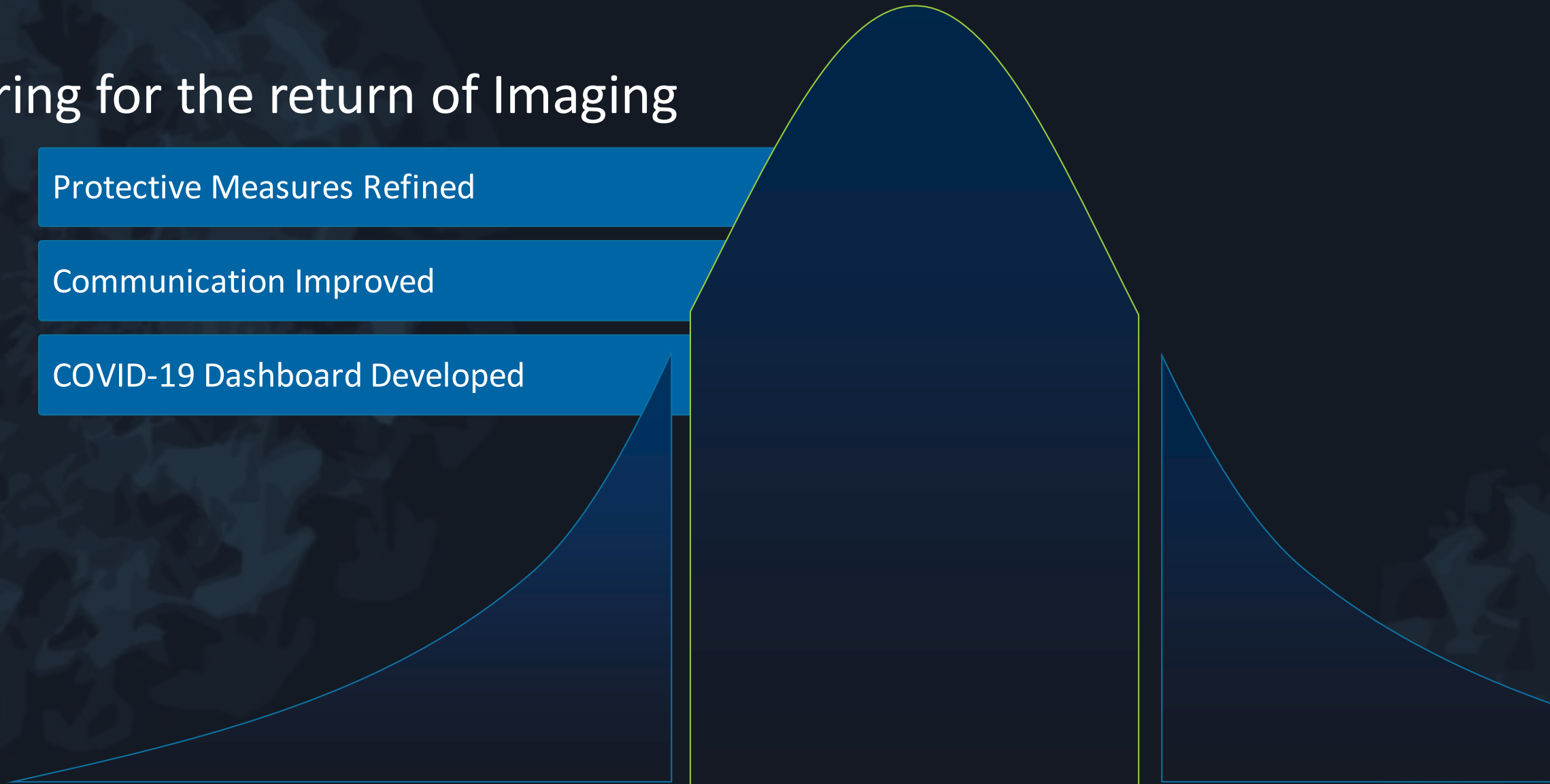


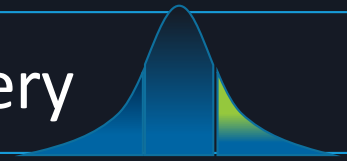
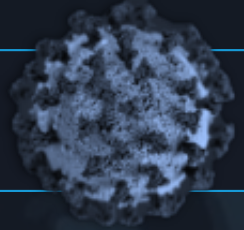
## Preparing for the return of Imaging

Protective Measures Refined

Communication Improved

COVID-19 Dashboard Developed

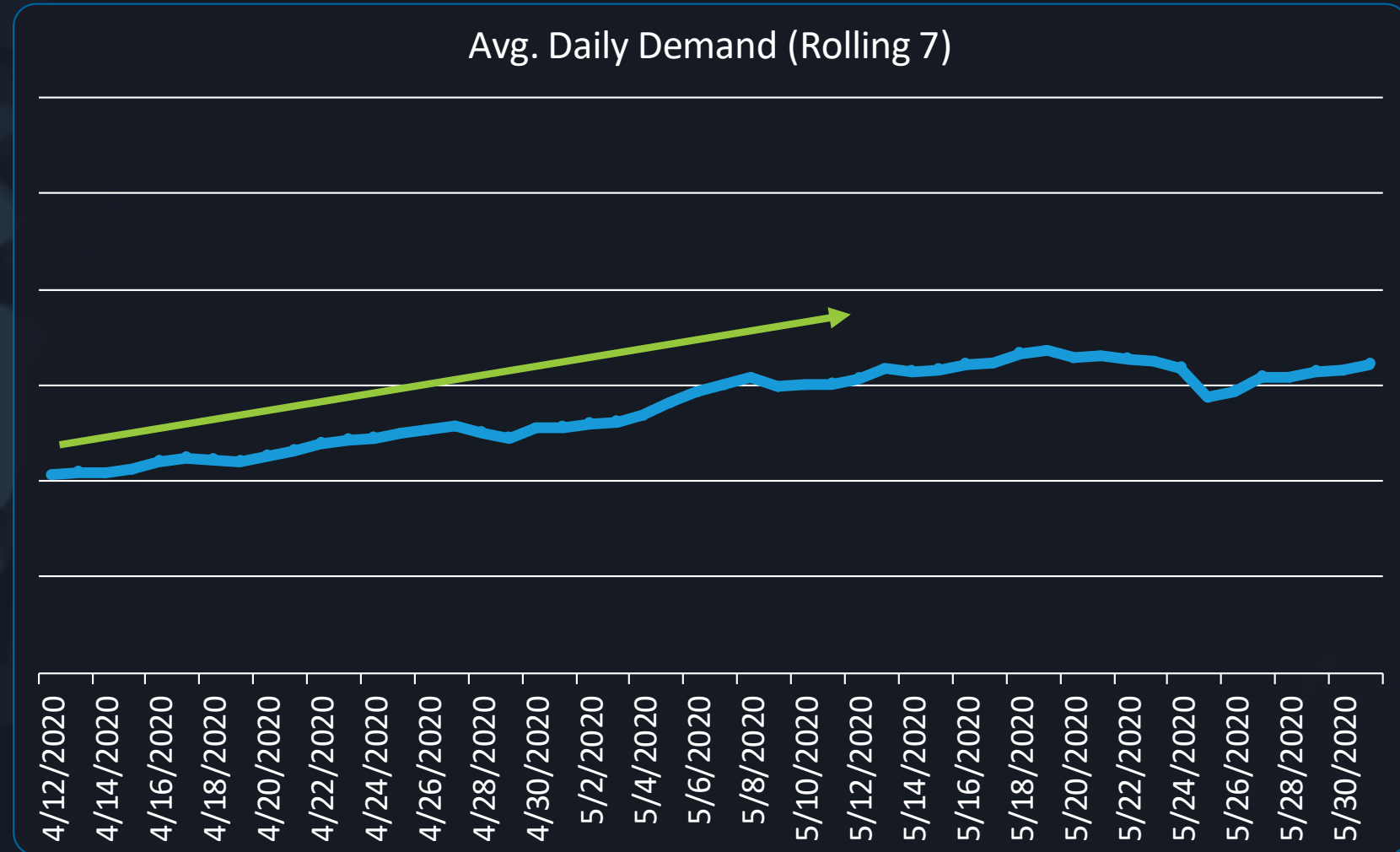




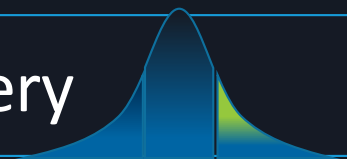
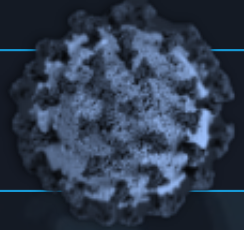
## Our Health System

### The Return of Imaging

- Mid-April began turning the corner
- No surges or backlog yet
- Steady week-to-week gains







## The Return of Imaging

Reinstituted Diagnostic Screening

Policy for COVID+/Suspected

Education

### Safety:

- Maintaining all safety procedures
- Resumed scheduling

### Patients:

- Call every patient!
- Assure them it's a safe place

### Referring Physicians:

- Communicate safe to send patients
- Outline safety measures



**Meeting  
Your Needs,  
Keeping  
You Safe.**

## SAFE IMAGING STUDIES

We have resumed elective imaging procedures across Pottstown Hospital locations and are pleased to share the comprehensive steps we've taken to keep patients and staff safe. From extensive PPE use and frequent disinfecting of all patient care areas, to COVID-19 symptom screening and social distancing, you can feel confident in your safety as you receive quality imaging studies here.

We follow or exceed safety processes and protocols of the American College of Radiology, the Centers for Disease Control and Prevention (CDC), the Pennsylvania Department of Health, and the Occupational Safety and Health Administration.

### Our Safety Procedures

#### SCREEN

- All patients and staff are screened for COVID-19 symptoms
- Temperature taken at building entry

#### PROTECT

- Staff use appropriate Personal Protective Equipment (PPE) and practice frequent handwashing
- Face masks required for all patients and staff
- Patient care areas cleaned and disinfected according to CDC guidelines

#### SOCIAL DISTANCING

- Social distancing is practiced and enforced
- One-way corridors minimize contact
- Time added between procedures to disinfect rooms and surfaces
- Waiting room time minimized
- Number of visitors restricted

#### PATIENT SCHEDULING AND ARRIVAL

- Call 610-327-7500 to schedule an imaging study appointment
- If you arrive early, please wait in your car until your scheduled appointment time
- Only one person can accompany the patient
- No checkout required. Follow-up appointments can be made by phone

**We're in this together and we  
are here to safely serve you and  
the community.**

POTTSTOWN HOSPITAL  
1600 E. High Street, Pottstown  
IMAGING CENTER  
1611 Medical Drive, Pottstown  
IMAGING CENTER  
23 N. Walnut Street, Boyertown



**Pottstown Hospital**

**TOWER HEALTH**

Advancing Health. Transforming Lives.

Insert Logo Here

Location name 1 1600 High St., Browntown  
Location name 2 1611 Lower Dr., Redtown  
Location name 3 1622 Upper Ln. Greentown

### Safe Imaging for Our Patients During COVID-19

We have resumed elective imaging procedures and would like to share with you some changes we have made to keep patients and staff safe.

The risk from health care–acquired COVID-19 can be made very low for most diagnostic radiology examinations and interventional radiology procedures if appropriate precautions are in place. Our office follows the guidance of the American College of Radiology, Centers for Disease Control (CDC), and Occupational Safety and Health Administration so that our infection control procedures remain current.

### Patient Scheduling and Arrival

- Schedule appointments at XXX-XXX-XXXX
- If you arrive early, please wait outside until your scheduled time.
- Only one person allowed to accompany the patient.
- A face mask will be provided if you don't bring your own.
- No checkout required. Follow-up appointments can be made by phone.

### Our Safety Procedures



#### SCREEN

- ✓ All patients, visitors and staff
- ✓ Temperature taken at building entry
- ✓ COVID-19 care in designated areas
- ✓ Rooms empty for 60 minutes after imaging a COVID-19 patient



#### DISTANCE

- ✓ Number of visitors restricted
- ✓ Social distancing enforced
- ✓ One-way corridors to minimize contact
- ✓ Waiting room time minimized
- ✓ Time added between procedures



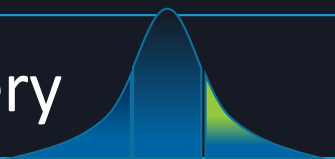
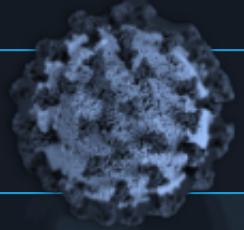
#### PROTECT

- ✓ Staff trained on PPE use and hygiene
- ✓ Face mask required for all patients, visitors, and staff
- ✓ Patient care areas cleaned and decontaminated according to CDC guidelines

**We're in this together and are here to serve you, your patients and our community.**

## COVID-19 Safety Flyer for Referrers and Patients

See “handouts” in the toolbar for a template you can download and customize.



Volume analysis

Memorial weekend

Local response

Clinical trending

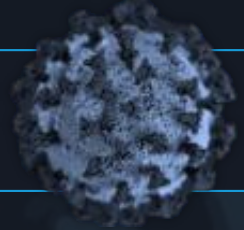
Q&A

## Thoughts & Lessons Learned

- Preparedness
- Experience gained for *Next Time*
- Is this the new normal?
- Are these changes permanent?

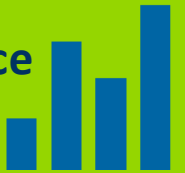






# Clinical Update

Audience  
Poll



Stroke Imaging vs. Patient Age

Viral Pneumonia

Non-Accidental Trauma

Trauma Imaging last weekend



**Benjamin W. Strong, MD**

Chief Medical Officer  
vRad

5/1/2020 12:10 PM

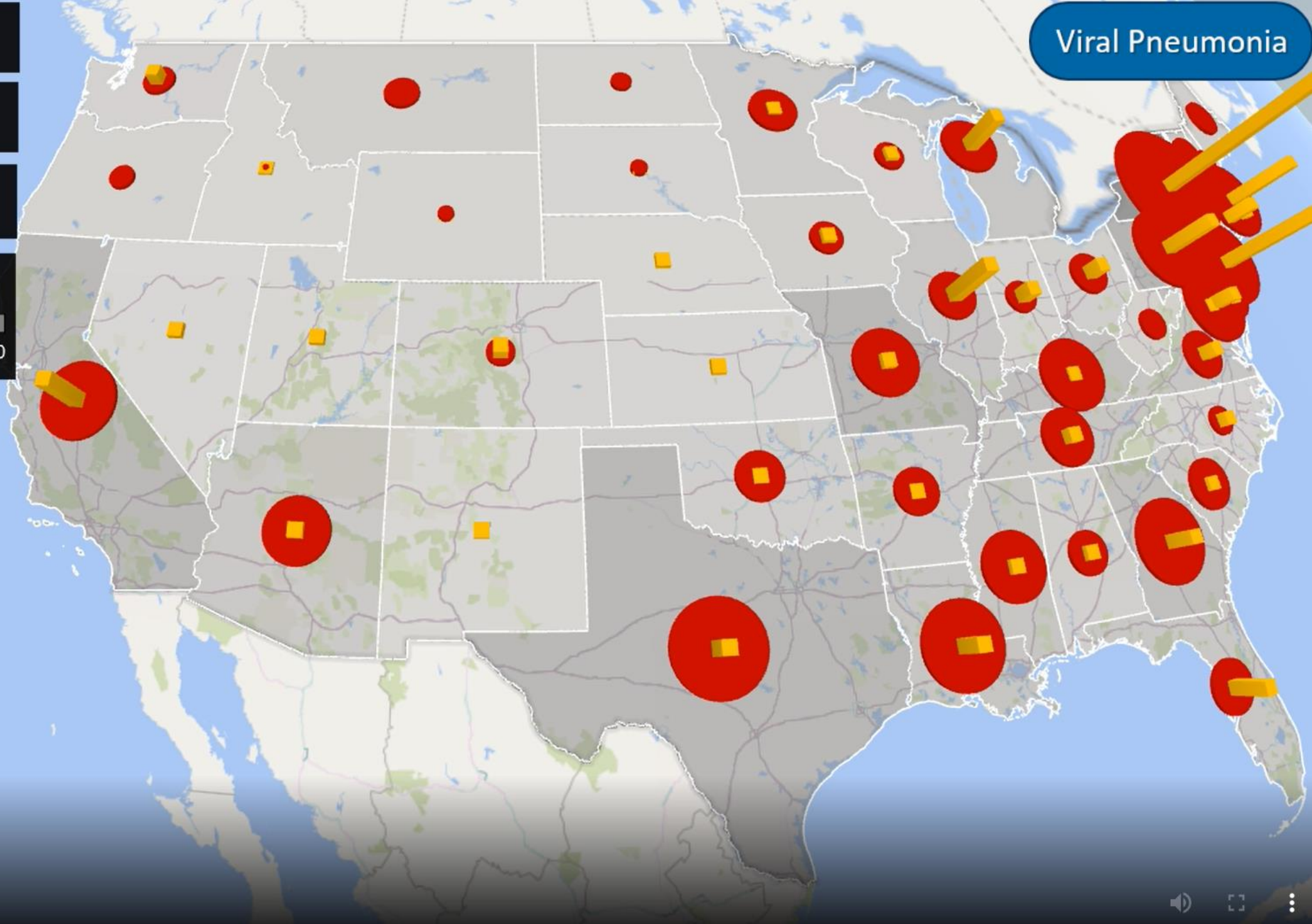
Viral Pneumonia

Official COVID Cases (Sum)

COVID NLP (Sum)

Viral Pneumonia NLP (Sum)

1.00 2,449.00



0:39 / 0:45



**AMERICAN PSYCHOLOGICAL ASSOCIATION**

Home // Psychology Topics // COVID-19 //

### How COVID-19 may increase domestic violence and child abuse

National crises ramp up stress among couples and families. Psychologists identify the risks and point to resources that can help.

By Ashley Abramson    Date created: April 8, 2020



### The potential impact of the COVID-19 on child abuse and neglect: The role of childcare and unemployment

Elisabetta De Cao, Malte Sandner 08 May 2020

COVID-19 is altering family dynamics in ways that threaten to put already vulnerable children at increased risk of abuse and neglect. This column describes the latest empirical evidence charting how a decline in childcare availability and employment can affect the treatment of children within families. Recommending that the immense costs of child maltreatment be considered in cost-benefit calculations of lockdown measures, the column also urges governments to work with social and health care providers to integrate children's welfare in future risk reduction and preparedness.



A A

Worldwide, child welfare organisations warn that the COVID-19 lockdown measures will increase cases of child maltreatment (e.g. UNICEF 2020), which includes the sexual, physical, and emotional abuse

#### Related

[Supporting parents and children in the early years during \(and after\) the COVID-19 crisis](#)  
Gabiella Conti

[COVID-19 day care centre closures and parental](#)



**Elisabetta De Cao**

Assistant Professor in Health Economics, London School of Economics

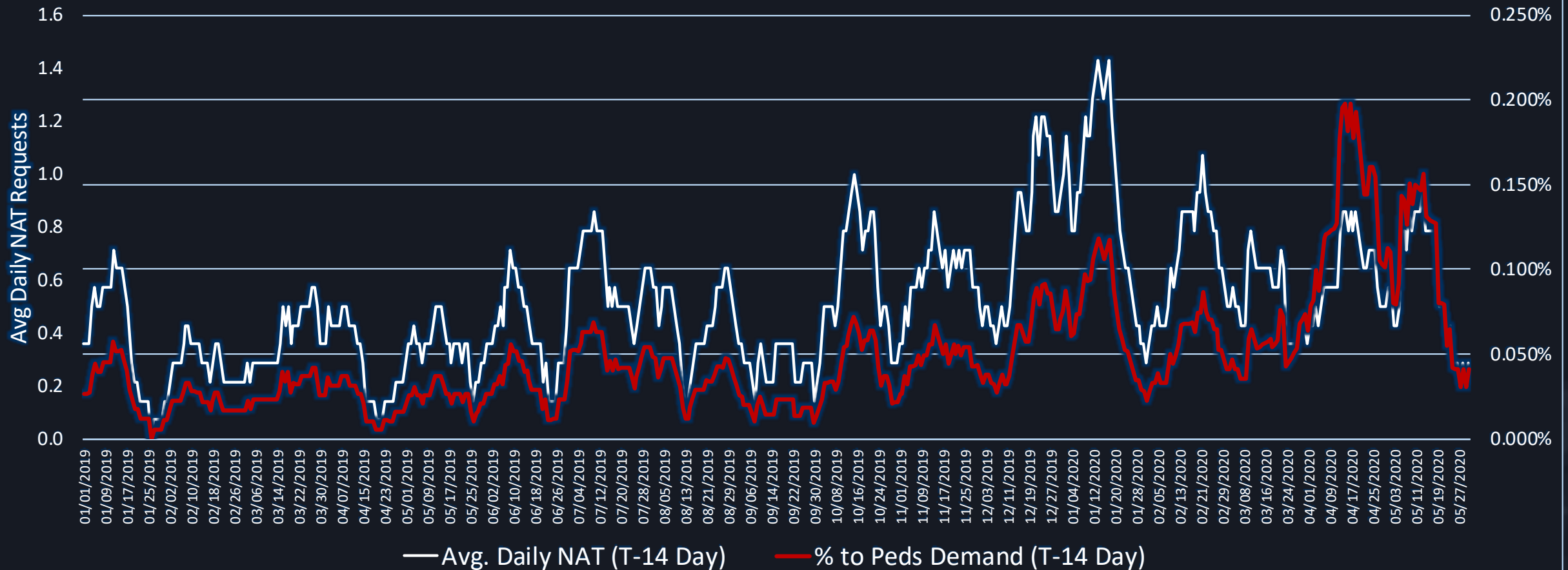


**Malte Sandner**

Senior Researcher, Institute for Employment Research (IAB)



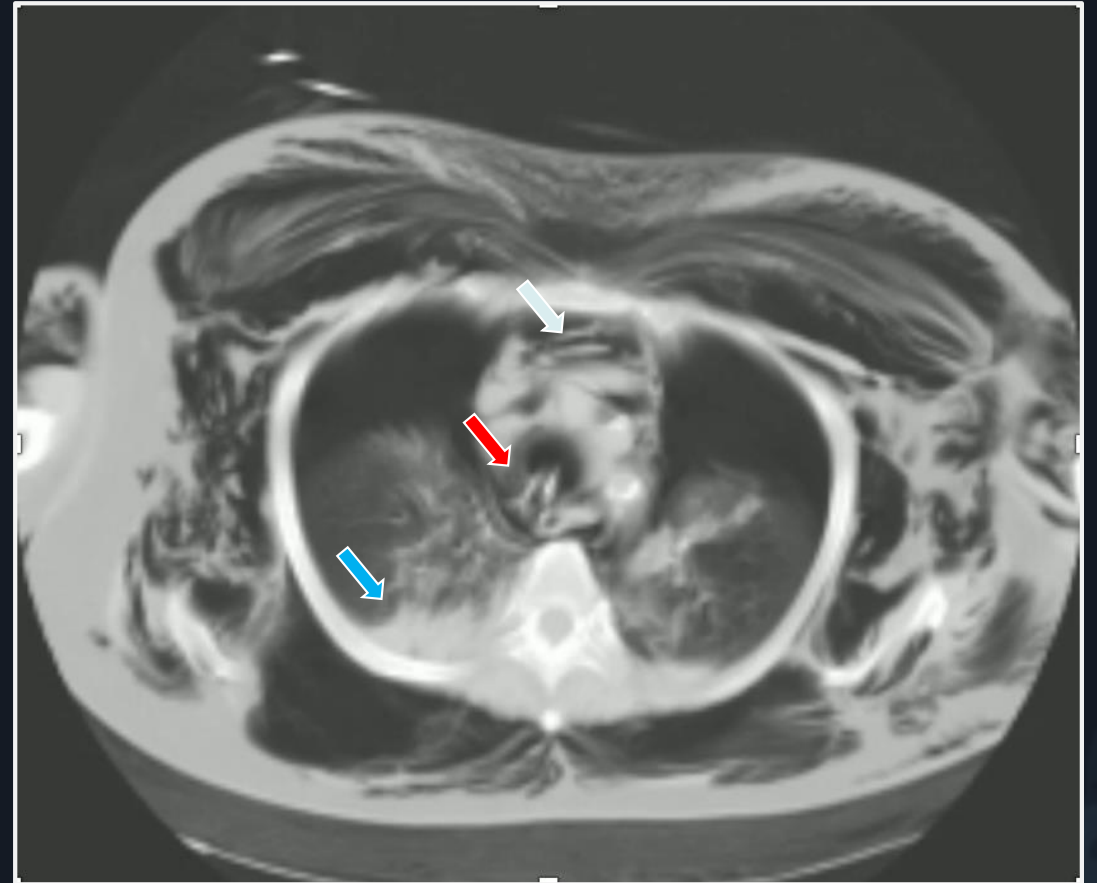
Average Daily NAT Requests vs. % to Pediatric Study Volume  
1/1/2019 to 5/31/2020



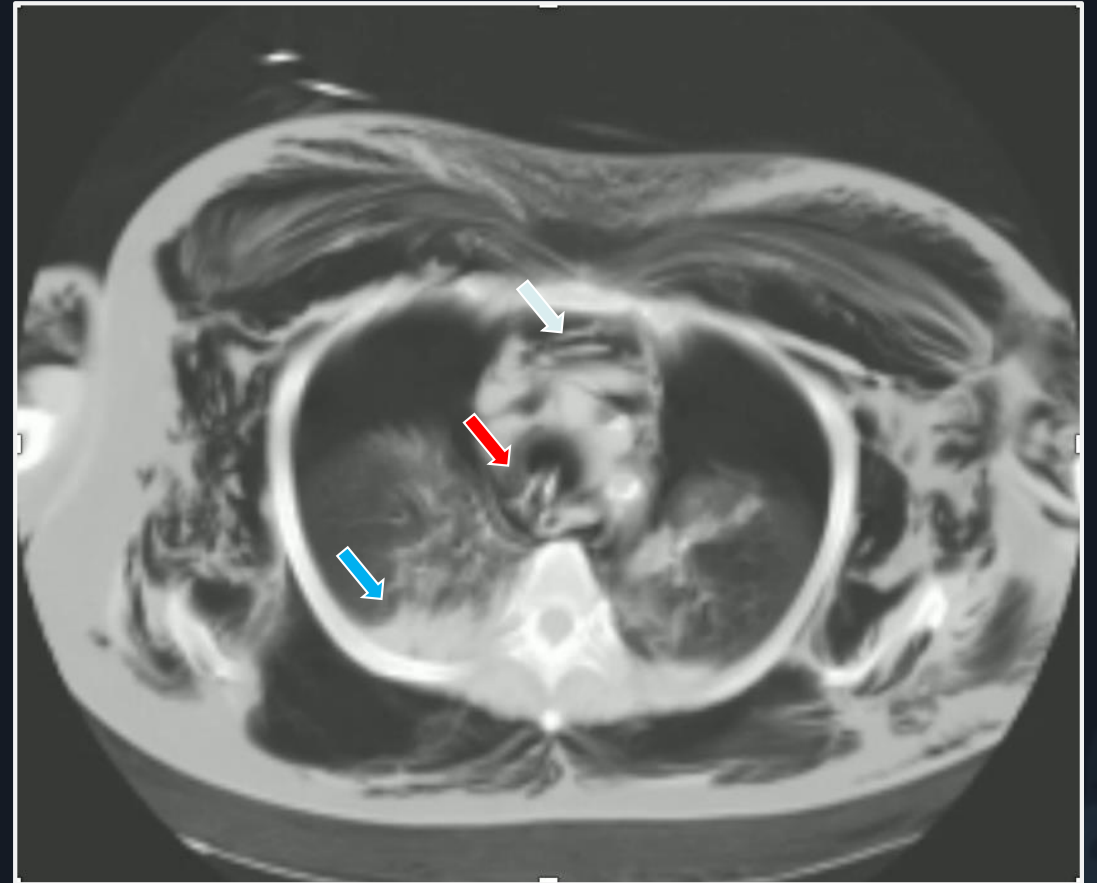
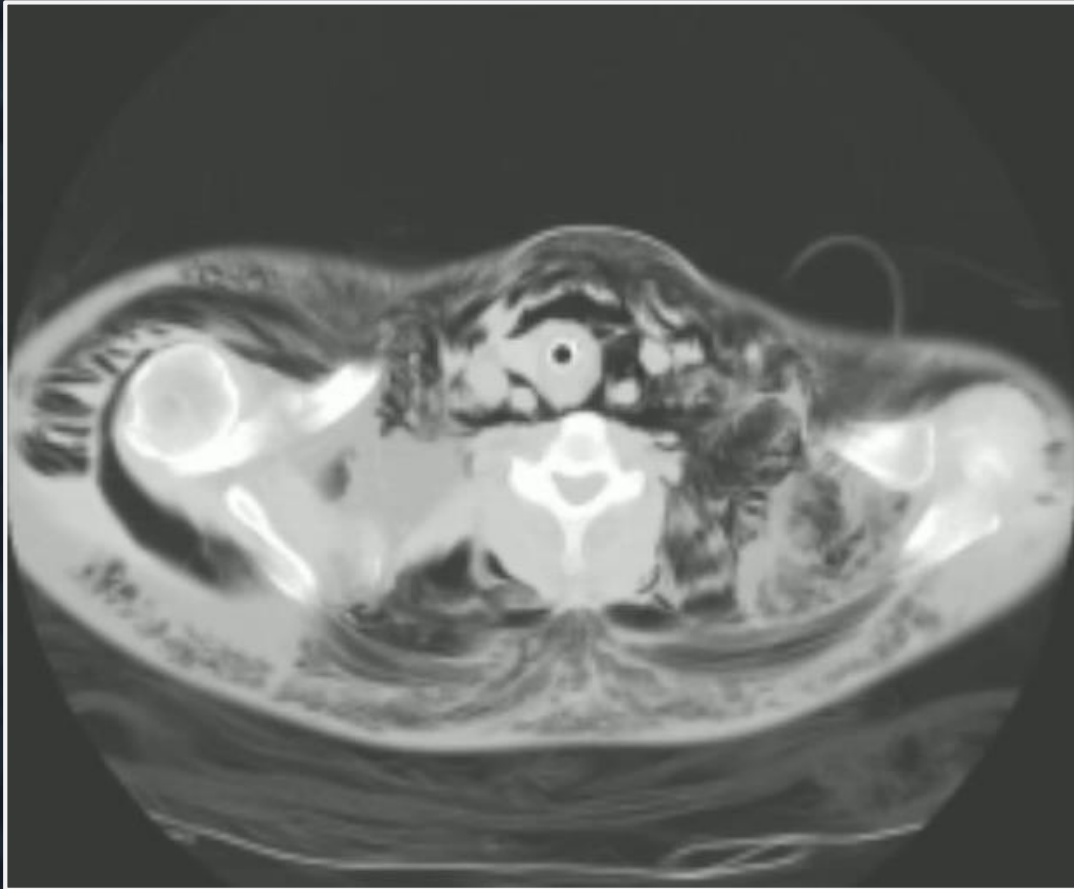


# Clinical Update

Mediastinal gas  
Tracheal defect  
Focal consolidation  
**Traumatic intubation**

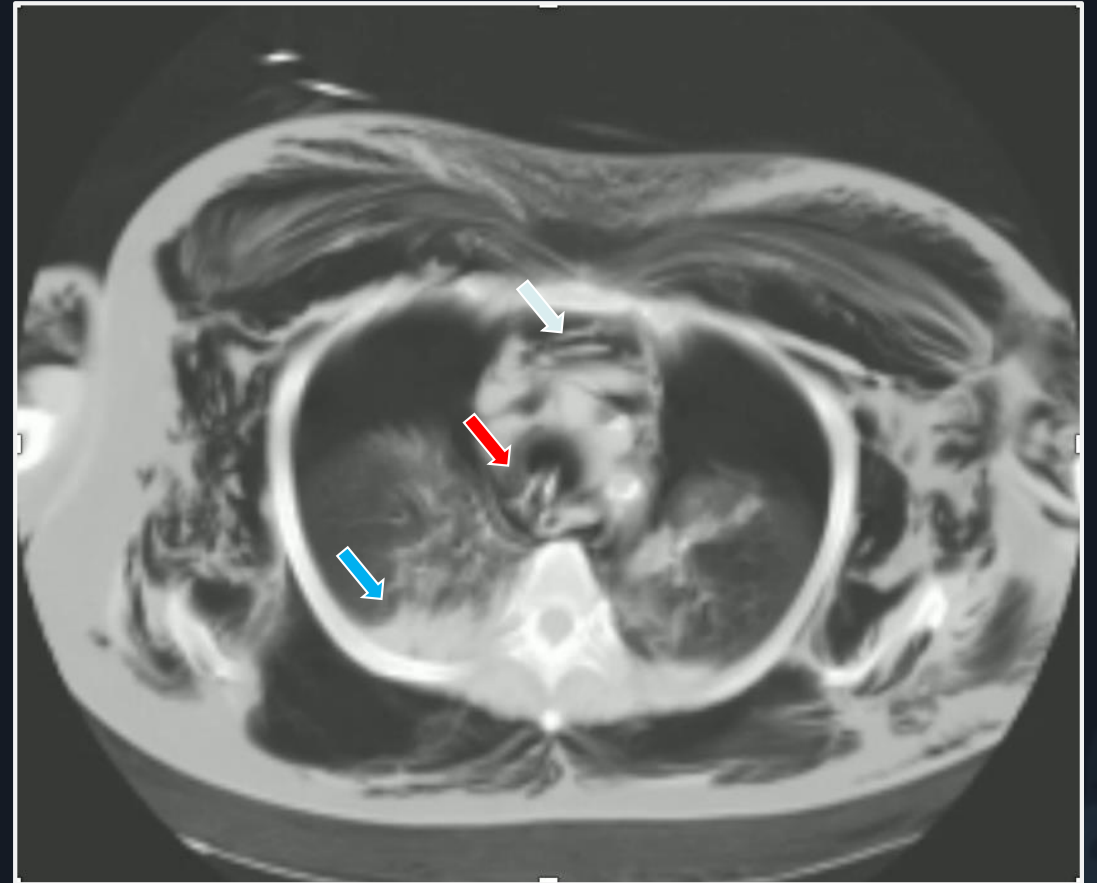


# Clinical Update



# Clinical Update

Mediastinal gas  
Tracheal defect  
Focal consolidation  
**Traumatic intubation**





**home.**





### There are more than 18,000 National Guard members assisting across 29 states

From CNN's Michael Conte and Ryan Browne



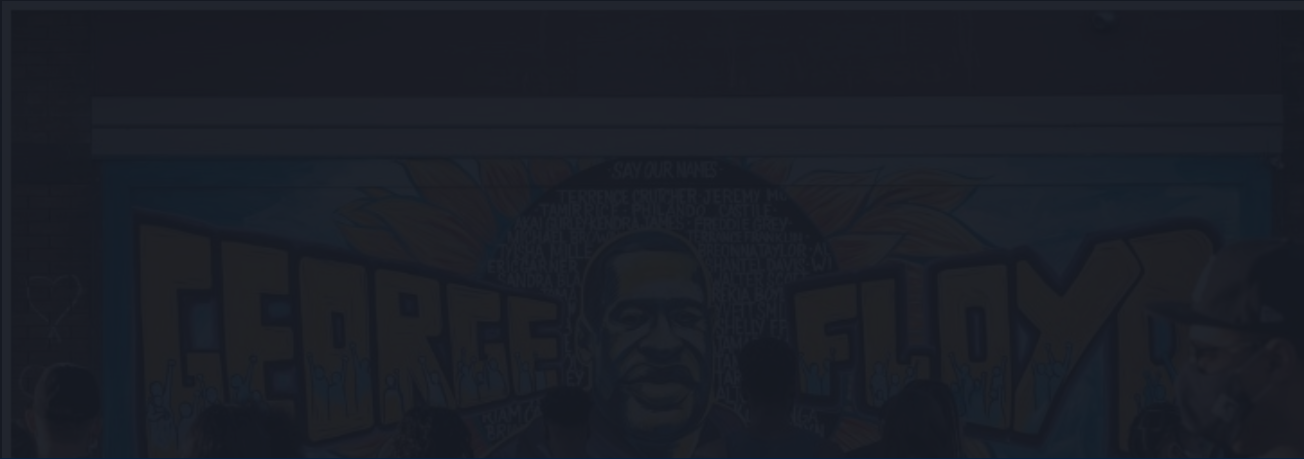
Armed National Guard soldiers patrol on Hollywood Boulevard on June 1 as peaceful protests and looting continue in Los Angeles County. Robyn Beck/AFP/Getty Images

Since Last week...

Protests in +140 cities

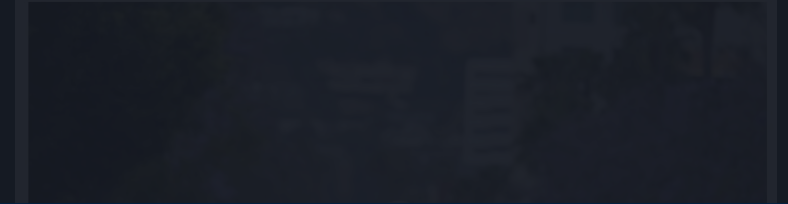
National Guard Activated across 29 States

Sweeping Curfews across major cities and states



There are more than 18,000 National Guard members assisting across 29 states

From CNN's Michael Clarke and Ryan Browne



## Did it impact national radiology imaging trends?

Since Last week...

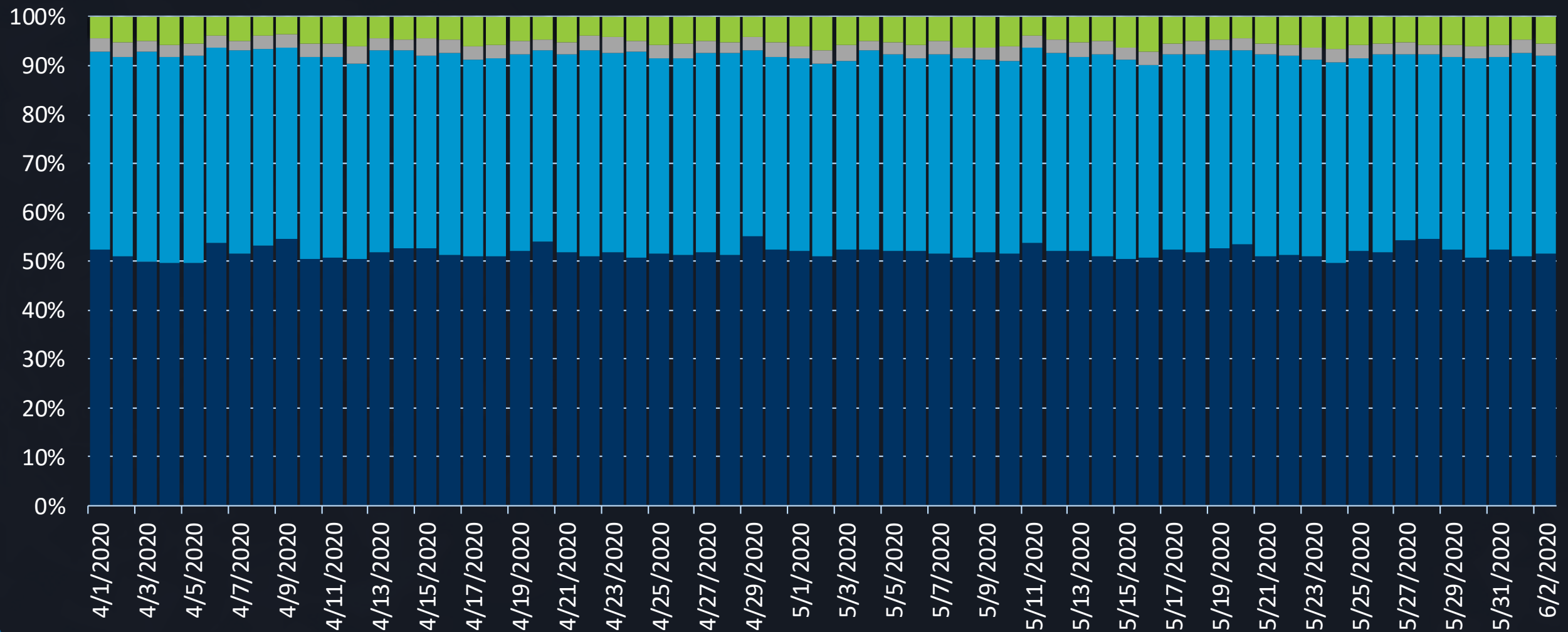
Protests in +140 cities

National Guard Activated across 29 States

Sweeping Curfews across major cities and some states

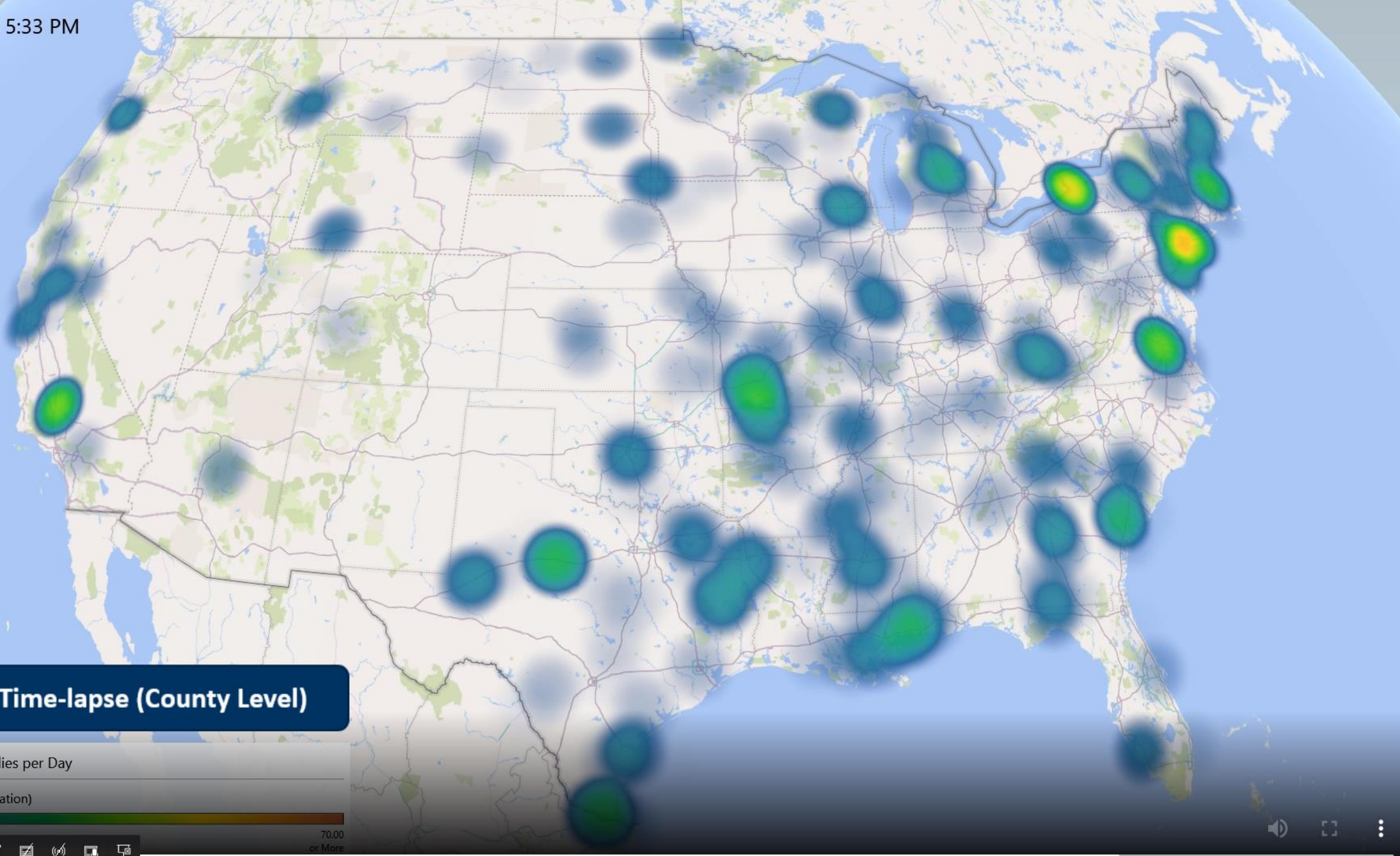
# All Emergent Imaging by Priority

Emergent Stat Stroke Protocol Trauma Protocol



**National Level:** No significant change in Trauma or other Emergent Imaging trends





## Regional Time-lapse (County Level)

Total Trauma Studies per Day

Trauma (No Aggregation)

0:12 / 0:15

70.00 or More

< > [Map Icon] [Settings Icon] [Full Screen Icon] [More Icon]



# Live Poll Results

Audience  
Poll





# Ask the Panelists

Volume analysis

Memorial weekend

Local response

Clinical trending

Q&A



**Joe Schmugge**  
VP of Operations  
vRad



**Brian A. Solomon, MD**  
Chairman and Medical Director  
Department of Radiology  
Pottstown Hospital, Tower Health



**Benjamin W. Strong, MD**  
Chief Medical Officer  
vRad

# Thank you!

How did we do? Please let us know in our 30-second survey following the webinar.