



# Impact of the COVID-19 Pandemic on Pennsylvania and its Health Care System

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**Pennsylvania Public Health Association**

# About HAP

- The Hospital and Healthsystem Association of Pennsylvania (HAP) is the leading voice for the health and well-being of Pennsylvanians.
- HAP's member hospitals and health systems provide health services across the continuum of care. They are collectively committed to helping Pennsylvania improve health outcomes and provide cost-effective care.
- HAP has strong relationships with state and federal officials and a broad spectrum of stakeholders committed to achieving a healthy Pennsylvania.



# Outline

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  - ▶ Case History in Pennsylvania
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  - ▶ COVID-19 Incidence in Rural and Urban Pennsylvania
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  - ▶ Rate of COVID-19 Related Patients to Other Inpatients
  - ▶ Death Rate Due to COVID-19 in Pennsylvania
  - ▶ Differences in the Incidence of COVID-19 for Racial and Ethnic Groups in Pennsylvania
- ▶ Policy and Regulations Promoting Mitigation
- ▶ Financial Toll of COVID-19 for Pennsylvania Hospitals
- ▶ Economic Impact of Pennsylvania Hospitals
- ▶ Conclusion

# Introduction

## COVID-19 in Pennsylvania:

- When did it start?
  - March 6, 2020: First confirmed case in Pennsylvania
  - March 11, 2020: World Health Organization's (WHO) declaration of global COVID-19 pandemic
  - March 18, 2020: First COVID-19-related death occurred in Pennsylvania
- How did it progress?
  - Two waves
  - At the end of one year:
    - Close to 25,000 COVID-19-related death
    - Almost one million COVID-19 cases

# Introduction

## COVID-19 in Pennsylvania's health care system:

- What had changed in Pennsylvania's health care system since the beginning?
  - Increased demand for medical supplies (e.g. PPE, ventilators)
  - Increased testing efforts
  - Cancelled scheduled services
  - Operational/protocol changes
  - Structural changes (e.g. increased ICU capacity and COVID-19 units)
  - Increased vaccination efforts
- What are the implications of these changes?
  - A financial loss of \$4.1 to \$5 billion dollars
  - Burned-out health care workforce

# Methodology

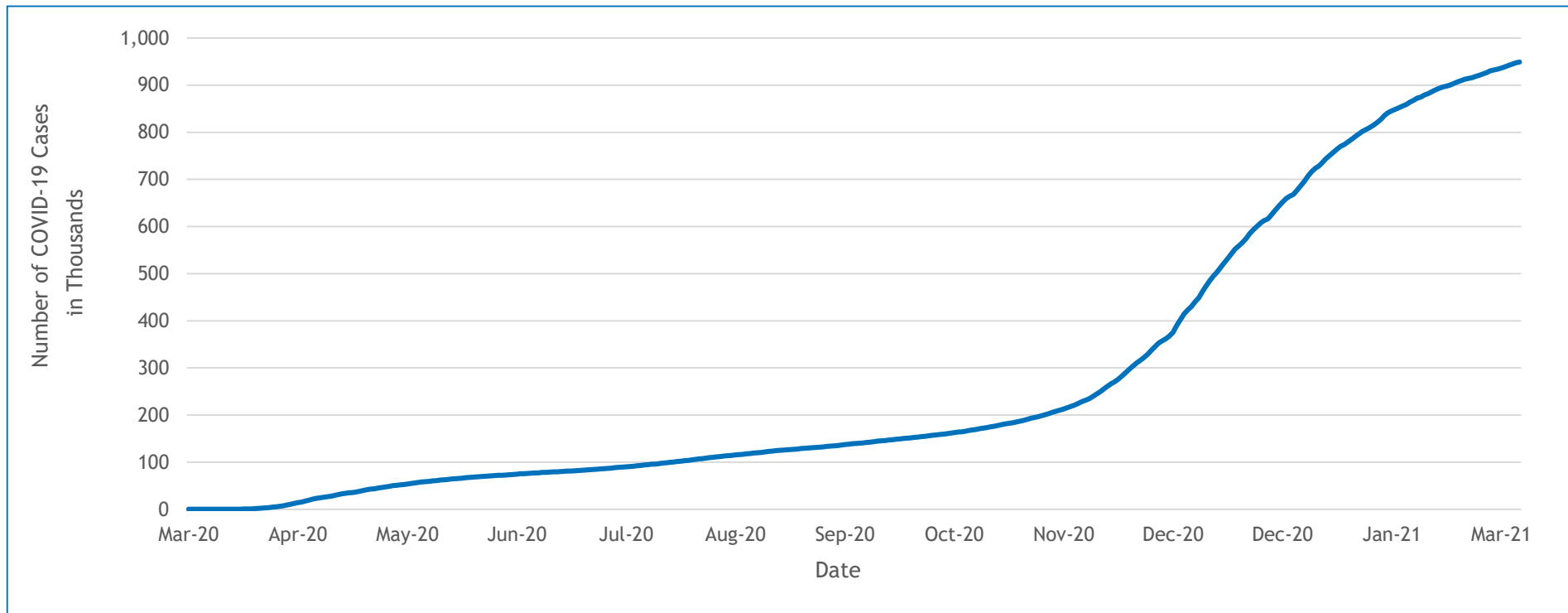
HAP applied a data-driven, mixed-methods approach to develop a one-year retrospective review of the COVID-19 pandemic in Pennsylvania.

- Publicly available data from the following sources were analyzed
  - Pennsylvania Department of Health
  - U.S. Health and Human Services
  - The COVID-19 Project
- The date range of the analyzed data was kept between March 6, 2020 and March 6, 2021
- Included results of the previous reports developed by:
  - Health Management Associates (HMA)
  - Pennsylvania Health Care Cost Containment Council (PHC4)
  - Kauffman Hall
  - The Hospital and Healthsystem Association of Pennsylvania (HAP)

# Findings:

## Case History in Pennsylvania

Figure 1. Cumulative COVID-19 Cases in PA (in thousands, March 6, 2020–March 6, 2021)

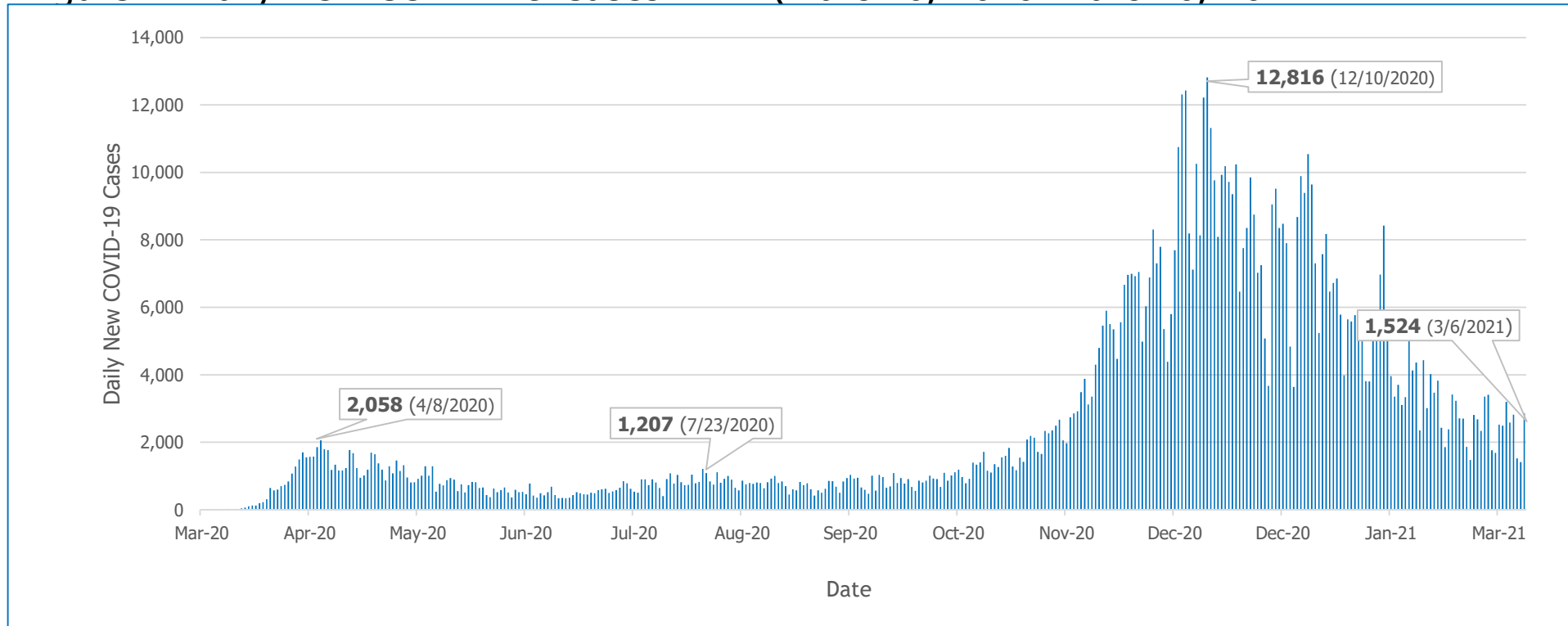


Source: [COVID-19 Aggregate Cases Current Daily County Health](#). OpendataPA, Commonwealth of Pennsylvania.

# Findings:

## Case History in Pennsylvania

Figure 2. Daily New COVID-19 Cases in PA (March 6, 2020–March 6, 2021)



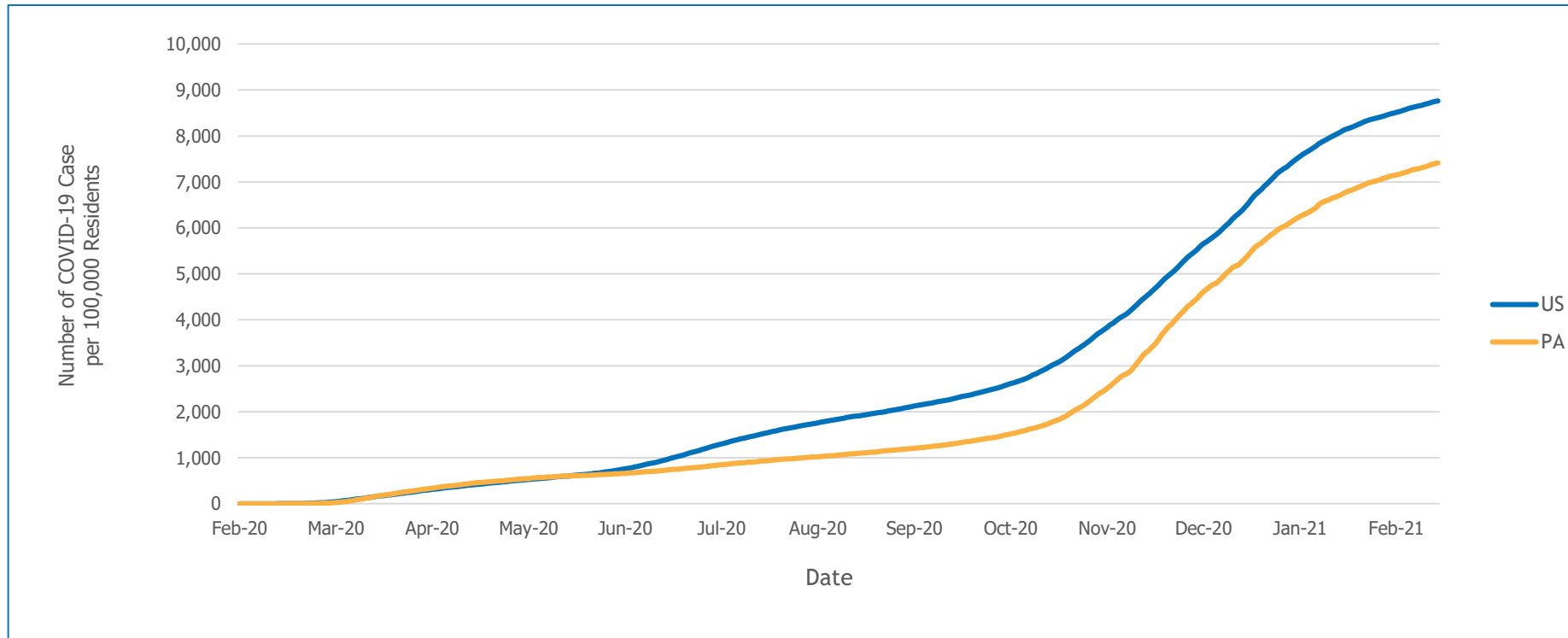
Source: [COVID-19 Aggregate Cases Current Daily County Health](#). OpendataPA, Commonwealth of Pennsylvania.



# Findings:

## Case History in Pennsylvania

Figure 3. COVID-19 Case Rate per 100,000 Residents (Feb 28, 2020–March 6, 2021)



Source: The COVID Tracking Project. [National Data and State Data](#).

# Findings:

## COVID-19 in Pennsylvania's Counties and Regions

Figure 4. Total COVID-19 Cases by Pennsylvania Counties (March 6, 2020–March 6, 2021)

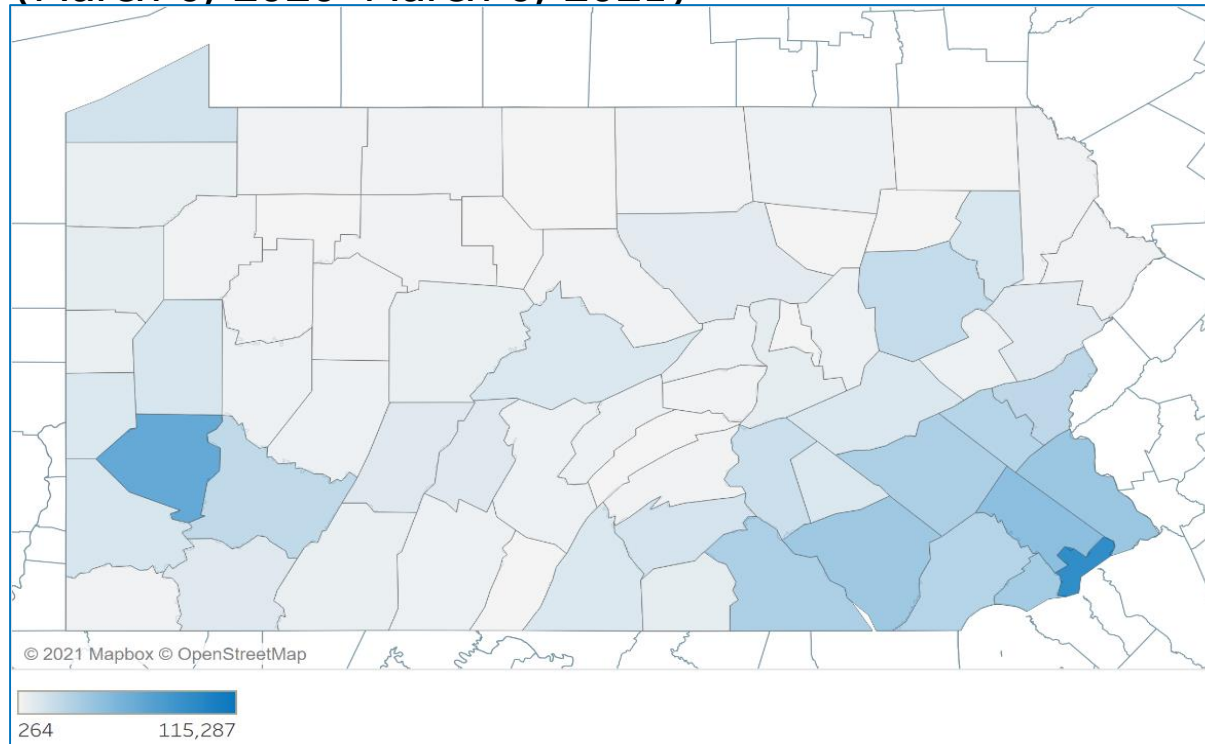


Table 1. Top Ten Counties with Highest Total COVID-19 Cases (March 6, 2020–March 6, 2021)

County	Total COVID-19 Cases
Philadelphia	115,287
Allegheny	78,225
Montgomery	55,200
Bucks	46,151
Lancaster	44,509
Delaware	41,730
York	36,418
Berks	36,369
Lehigh	31,275
Chester	31,218

Source: [COVID-19 Aggregate Cases Current Daily County Health](#). OpendataPA, Commonwealth of Pennsylvania.

# Findings:

## COVID-19 in Pennsylvania's Counties and Regions

Figure 5. COVID-19 Case Rate per 100,000 Population by Pennsylvania Counties (March 6, 2020–March 6, 2021)

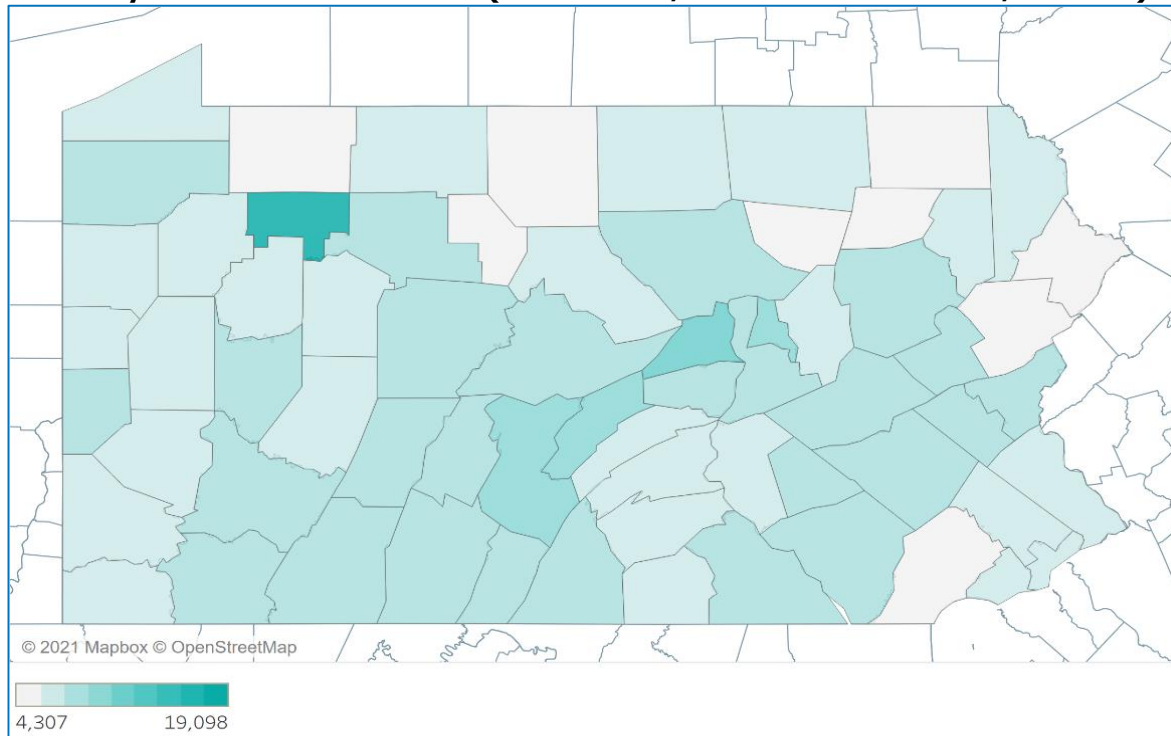


Table 2. Top Ten Counties with Highest COVID-19 Case Rate per 100,000 Residents (March 6, 2020–March 6, 2021)

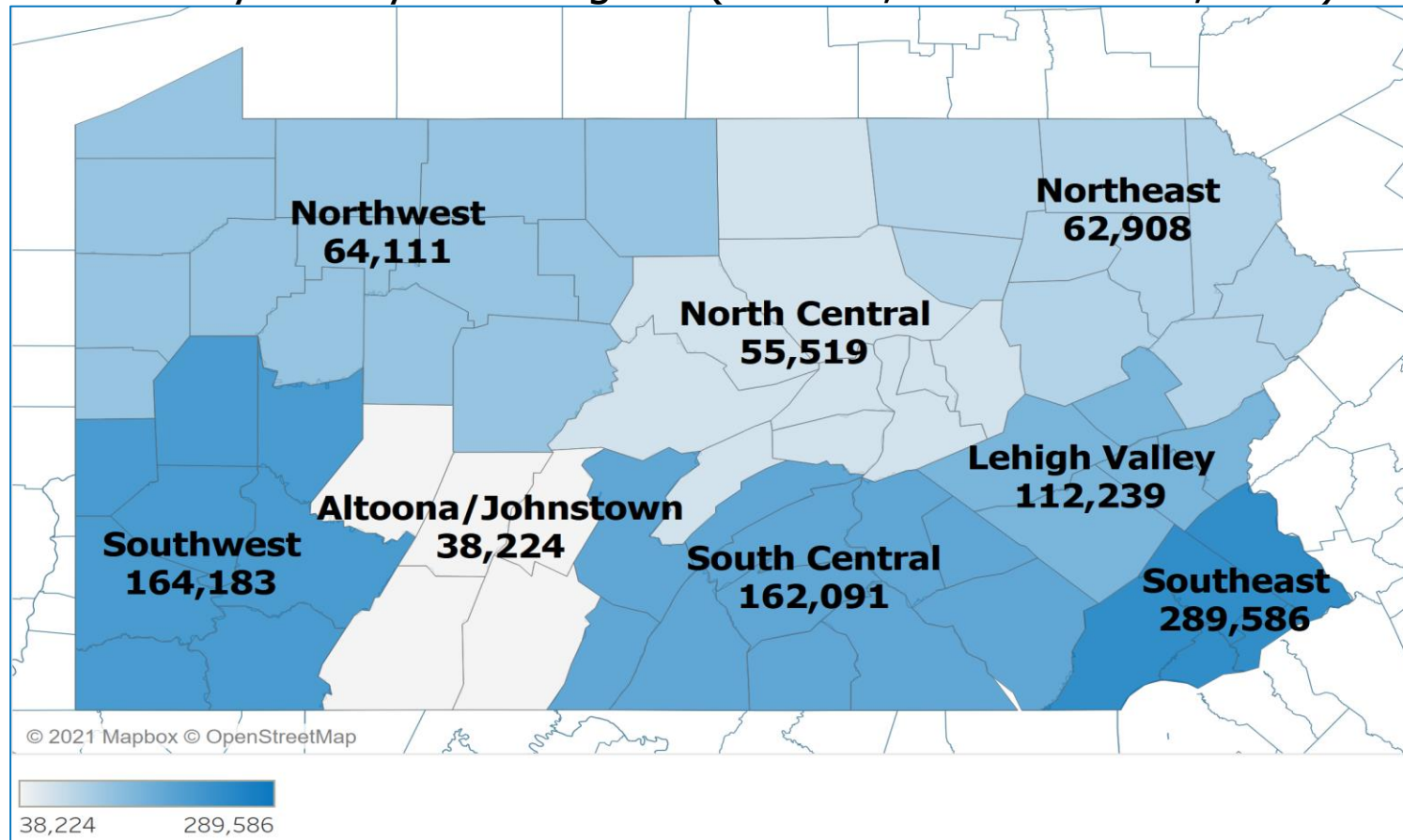
County	Rate
Forest	19,098
Union	11,756
Mifflin	10,029
Montour	9,627
Huntingdon	9,556
Lebanon	9,180
Somerset	9,152
Cambria	9,075
Northampton	8,993
Northumberland	8,907

Source: [COVID-19 Aggregate Cases Current Daily County Health](#). OpendataPA, Commonwealth of Pennsylvania.

# Findings:

## COVID-19 in Pennsylvania's Counties and Regions

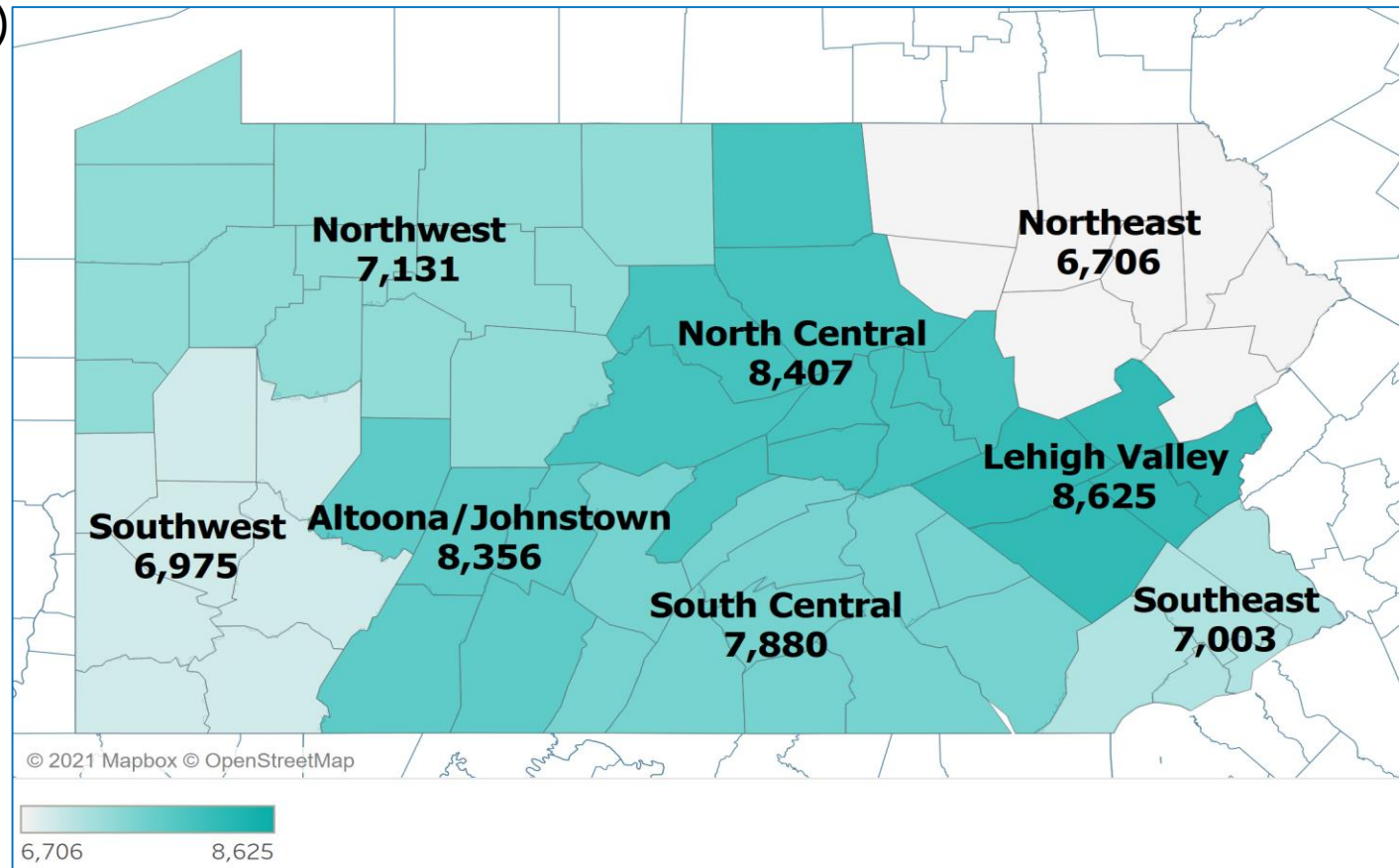
Figure 6. Total Cases by Pennsylvania Regions (March 6, 2020–March 6, 2021)



# Findings:

## COVID-19 in Pennsylvania's Counties and Regions

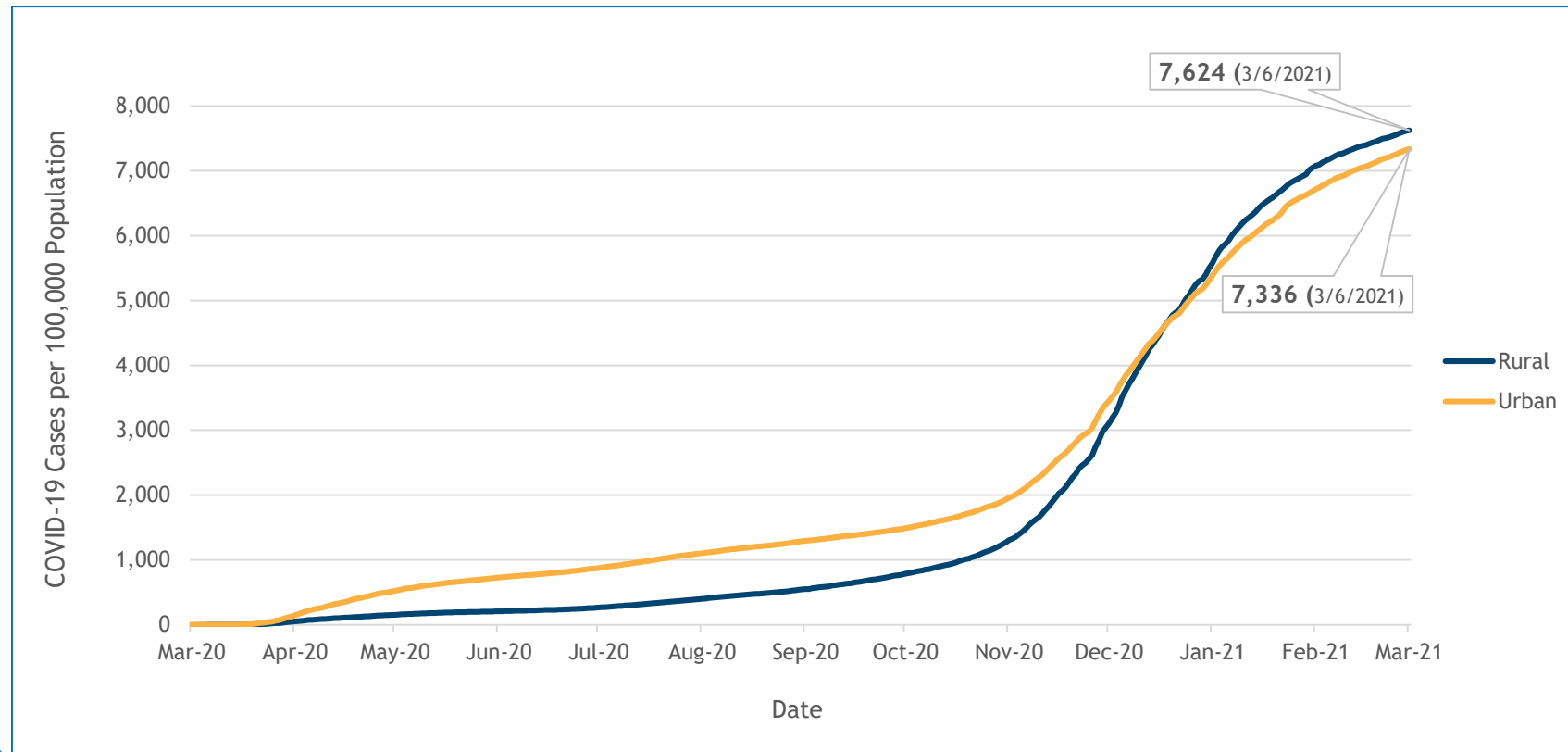
Figure 7. COVID-19 Case Rate per 100,000 Residents for Pennsylvania Regions (March 6, 2020–March 6, 2021)



# Findings:

## COVID-19 Incidence in Rural and Urban Pennsylvania

Figure 8. Cumulative Case Rate: Urban vs. Rural Pennsylvania (March 6, 2020–March 6, 2021)

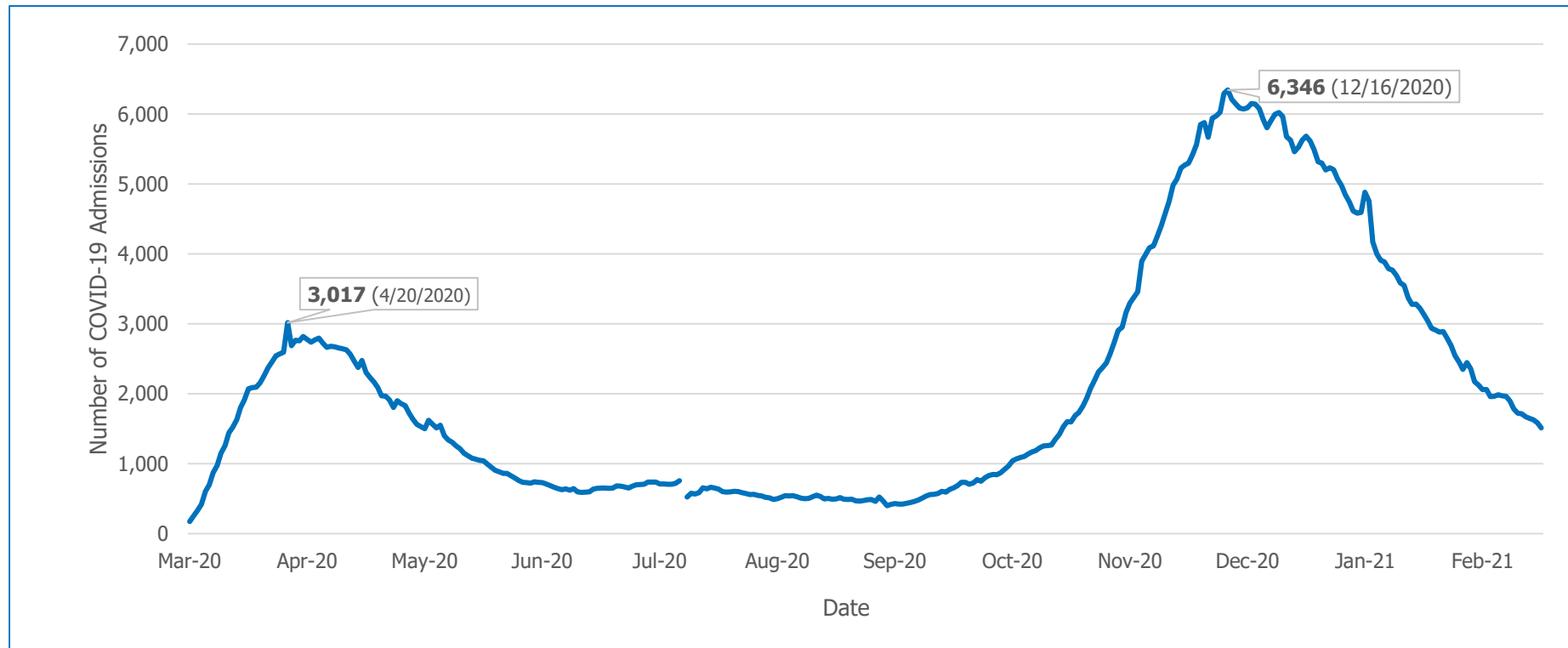


Source: [COVID-19 Aggregate Cases Current Daily County Health](#). OpendataPA, Commonwealth of Pennsylvania.

# Findings:

## Hospitalizations Due to COVID-19 in Pennsylvania

Figure 9. Hospitalized COVID-19 Patients in PA (March 26, 2020–March 6, 2021)

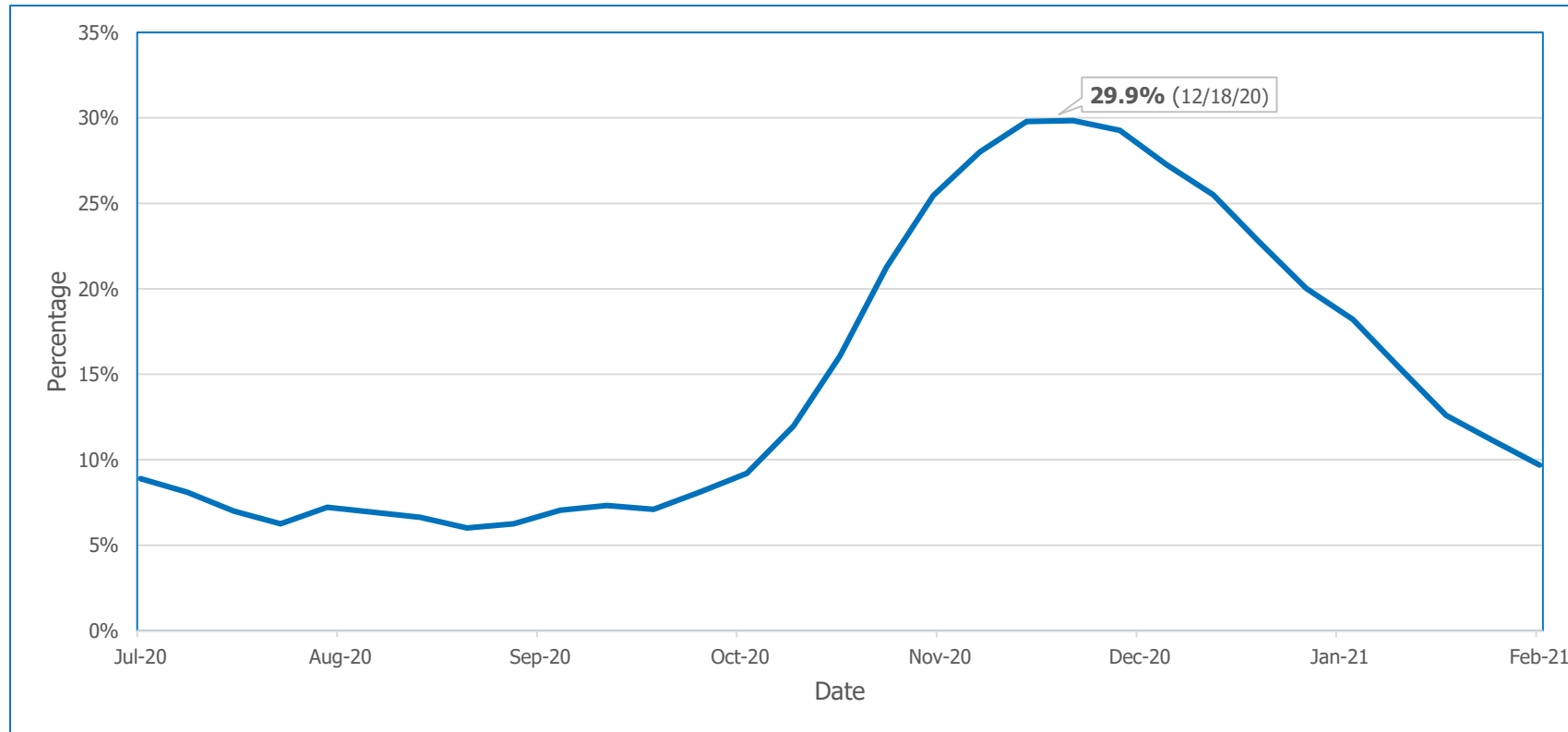


Source: [COVID-19 Aggregate Hospitalizations Current Daily County Health](#). OpendataPA, Commonwealth of Pennsylvania.

# Findings:

## Rate of COVID-19 Patients to Other Inpatients

Figure 10. Percentage of COVID-19 Patients to All Inpatients (July 31, 2020–Feb 26, 2021)



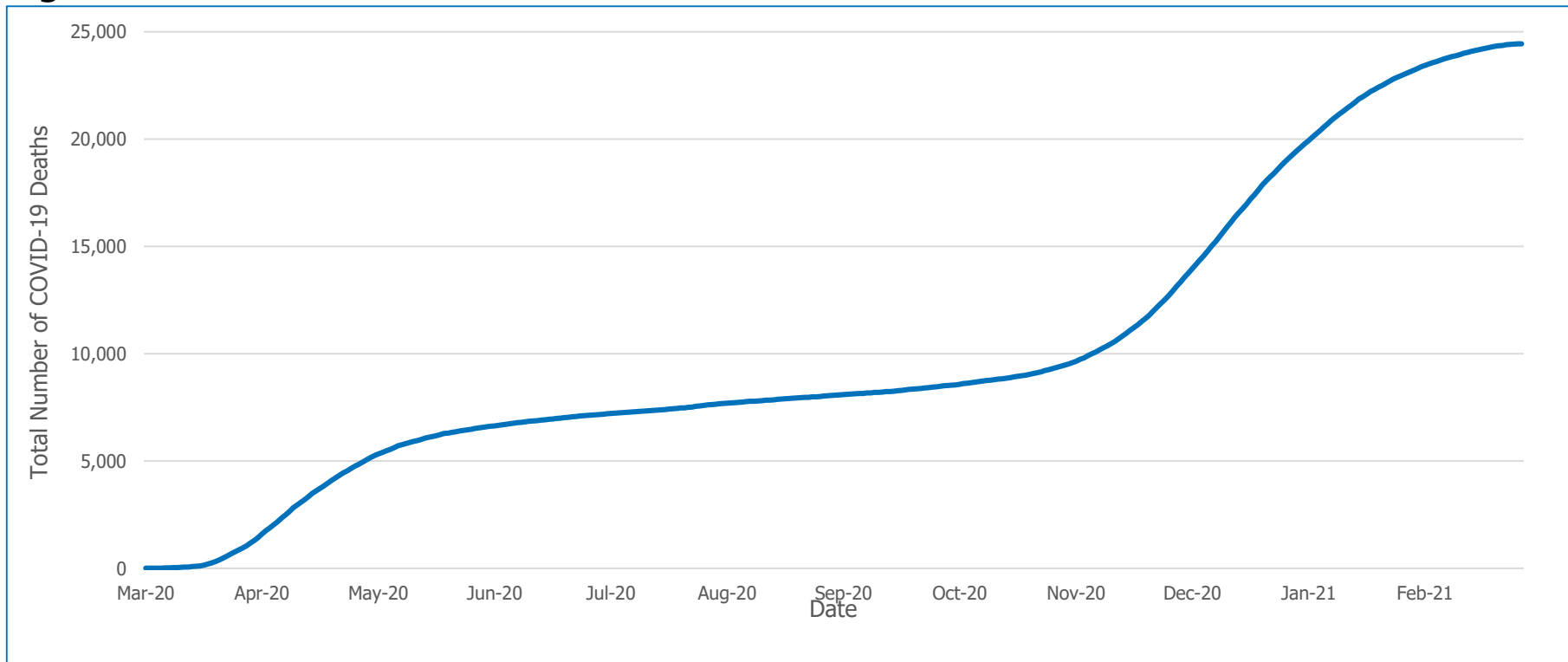
Source: Department of Health and Human Services (HSS). [COVID-19 Reported Patient Impact and Hospital Capacity by Facility](#).



# Findings:

## Deaths Due to COVID-19 in Pennsylvania

Figure 11. Cumulative Deaths Due to COVID-19 in PA

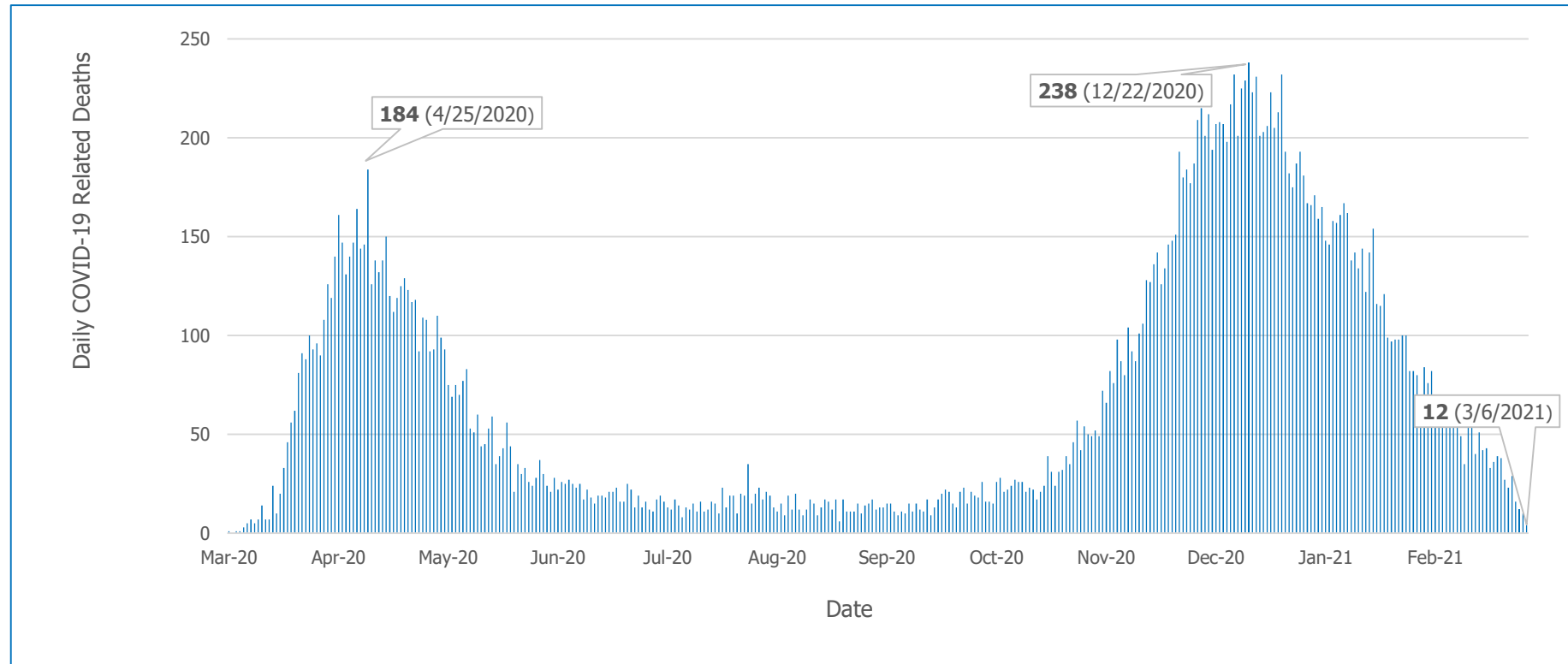


Source: [COVID-19 Aggregate Death Data Current Daily County Health](#). OpendataPA, Commonwealth of Pennsylvania.

# Findings:

## Deaths Due to COVID-19 in Pennsylvania

Figure 12. New deaths per day (March 18, 2020–March ,6 2021)

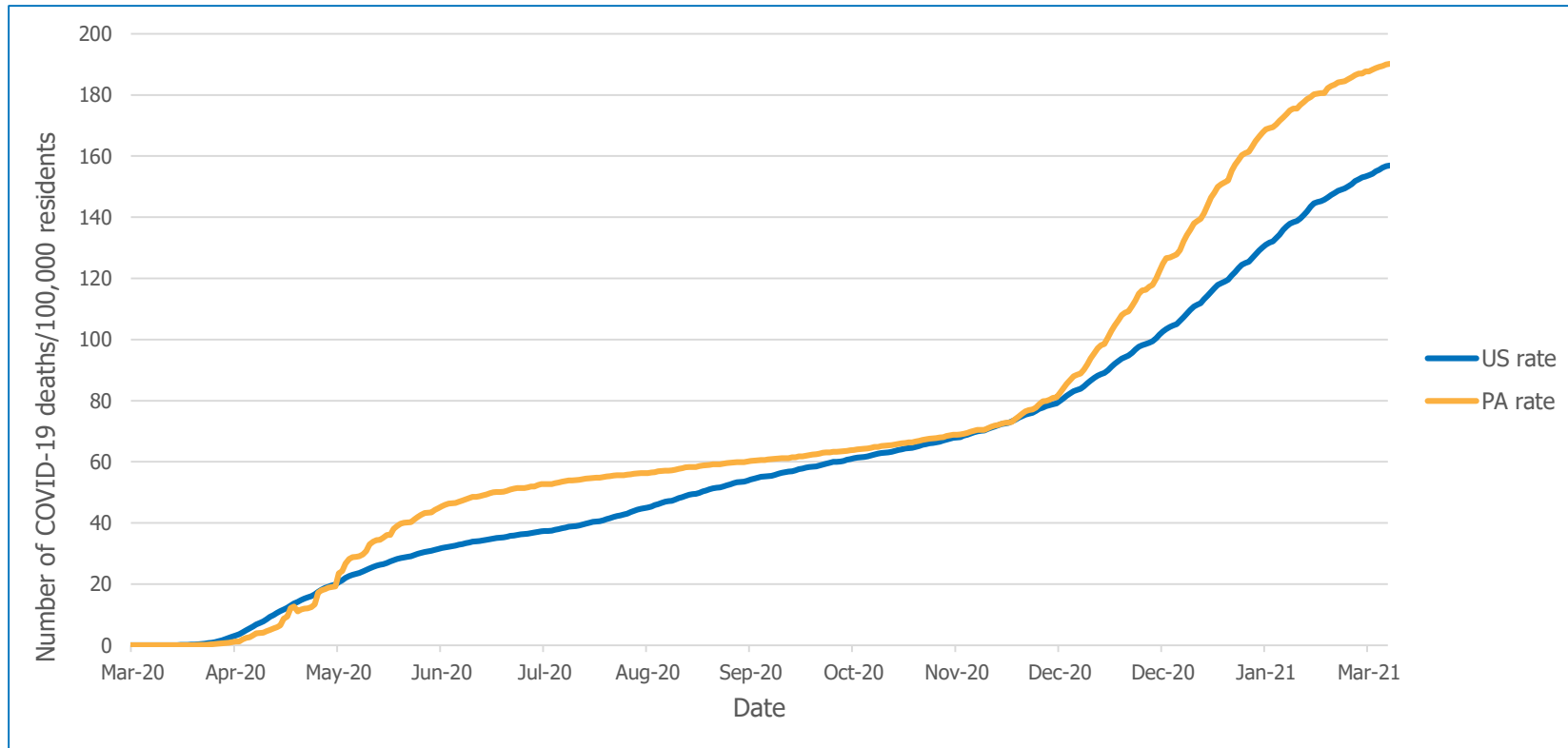


Source: [COVID-19 Aggregate Death Data Current Daily County Health](#). OpendataPA, Commonwealth of Pennsylvania.

# Findings:

## Death Rate Due to COVID-19 in Pennsylvania

Figure 13. The death rate per 100,000 residents in Pennsylvania and United States



Source: [COVID-19 Aggregate Death Data Current Daily County Health](#). OpendataPA, Commonwealth of Pennsylvania.

# Findings:

## Differences in the Incidence of COVID-19 for Racial and Ethnic Groups in Pennsylvania

Figure 14. Cases per 100,000 people in Pennsylvania

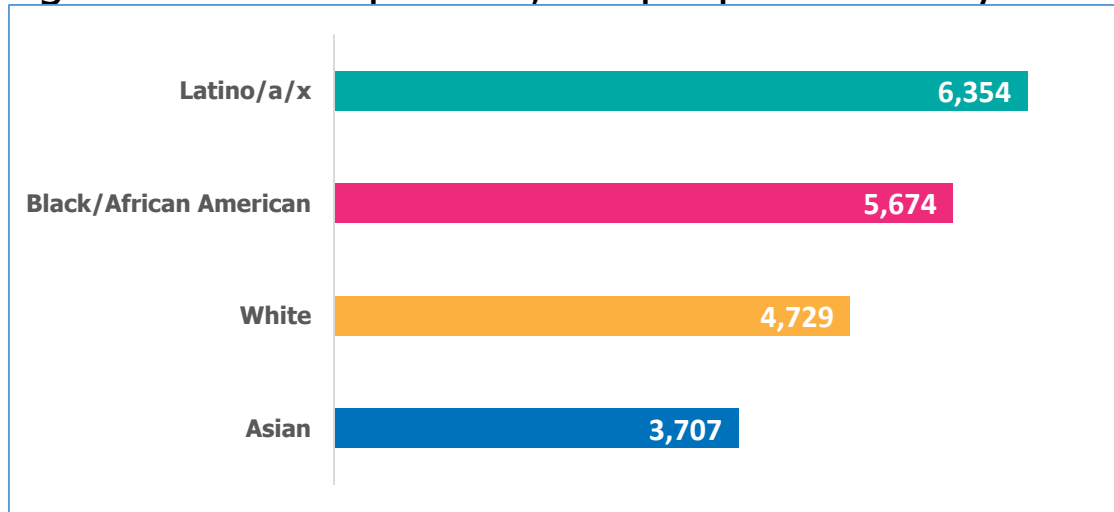
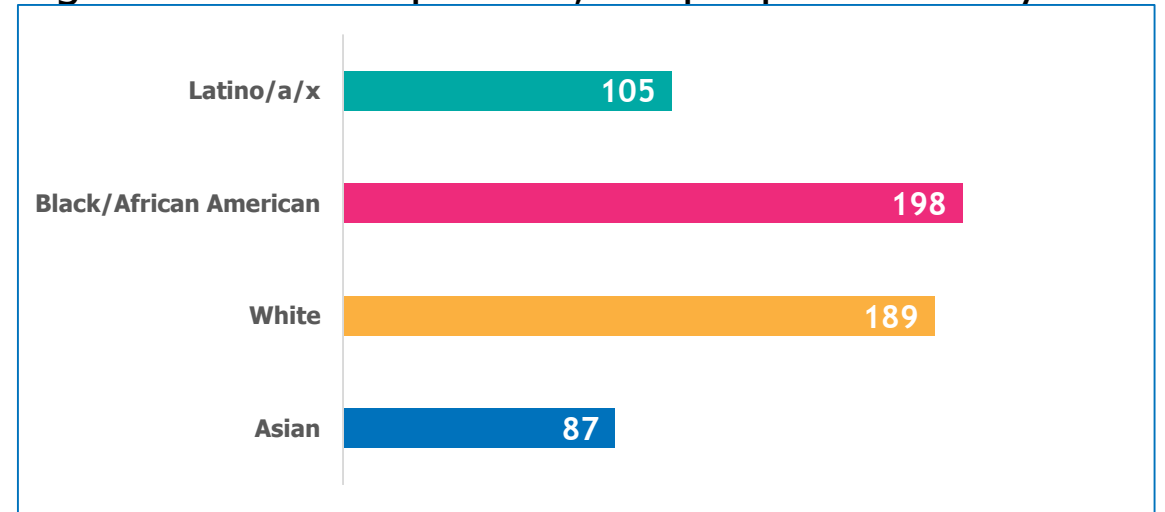


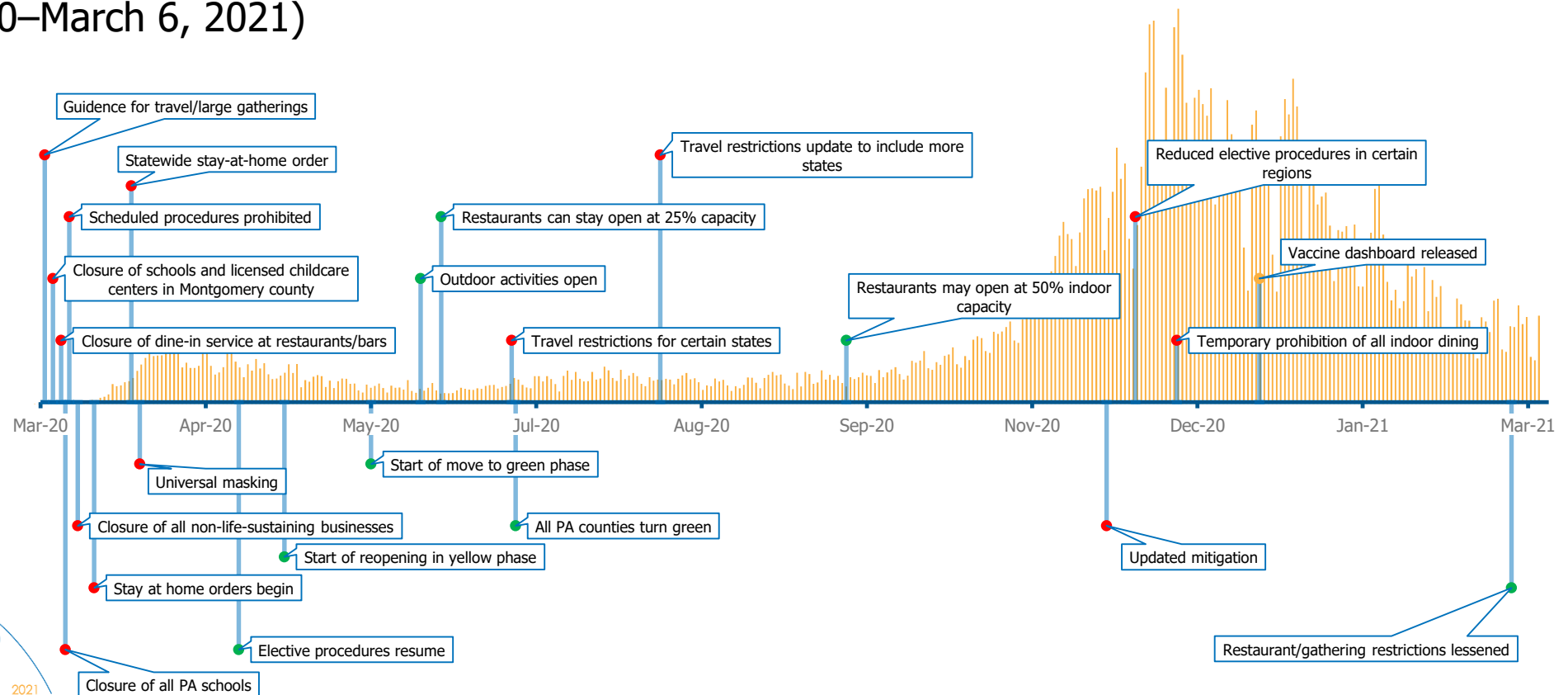
Figure 15. Deaths per 100,000 people in Pennsylvania



Source: The COVID Tracking Project. [Infection and Mortality by Race and Ethnicity](#).

# Policy and Regulations Promoting Mitigation

Figure 16. Timeline of major mitigation efforts put into effect in Pennsylvania in correlation with daily new cases (March 11, 2020–March 6, 2021)



# Financial Toll of COVID-19 for Pennsylvania Hospitals

Three financial analyses of the financial impact of COVID-19 on Pennsylvania and U.S. hospitals:

- Analysis of the Impacts of COVID-19 on Pennsylvania Hospitals (*Health Management Associates*)
- COVID-19 Disaster Emergency Report (*Pennsylvania Health Care Cost Containment Council*)
- COVID-19 in 2021: The Potential Effect on the Hospital Revenues (*Kaufman Hall*)



# Financial Toll of COVID-19 for Pennsylvania Hospitals

Analysis of the Impacts of COVID-19 on Pennsylvania Hospitals:

- Hospitals did not expect to reach pre-pandemic patient volume during 2021
- Federal relief fell short in covering hospitals' financial losses (estimated \$5 billion vs \$2.8 billion)
- COVID-19 contributed to the other challenges hospitals are facing
- Hospitals postponed investing in facilities, equipment and technology
- Hospitals' financial operability is threatened



# Financial Toll of COVID-19 for Pennsylvania Hospitals

COVID-19 Disaster Emergency Report:

Pennsylvania hospitals experienced:

- Revenue loss of \$4.1 billion
- Increased cost including:
  - \$81 million in costs related to COVID-19 testing
  - \$349 million for increased staffing and labor costs
  - \$258 million to purchase additional supplies and equipment
  - \$21 million in costs to set up emergency operation centers
  - \$89 million for other miscellaneous activities





# Financial Toll of COVID-19 for Pennsylvania Hospitals

COVID-19 in 2021:

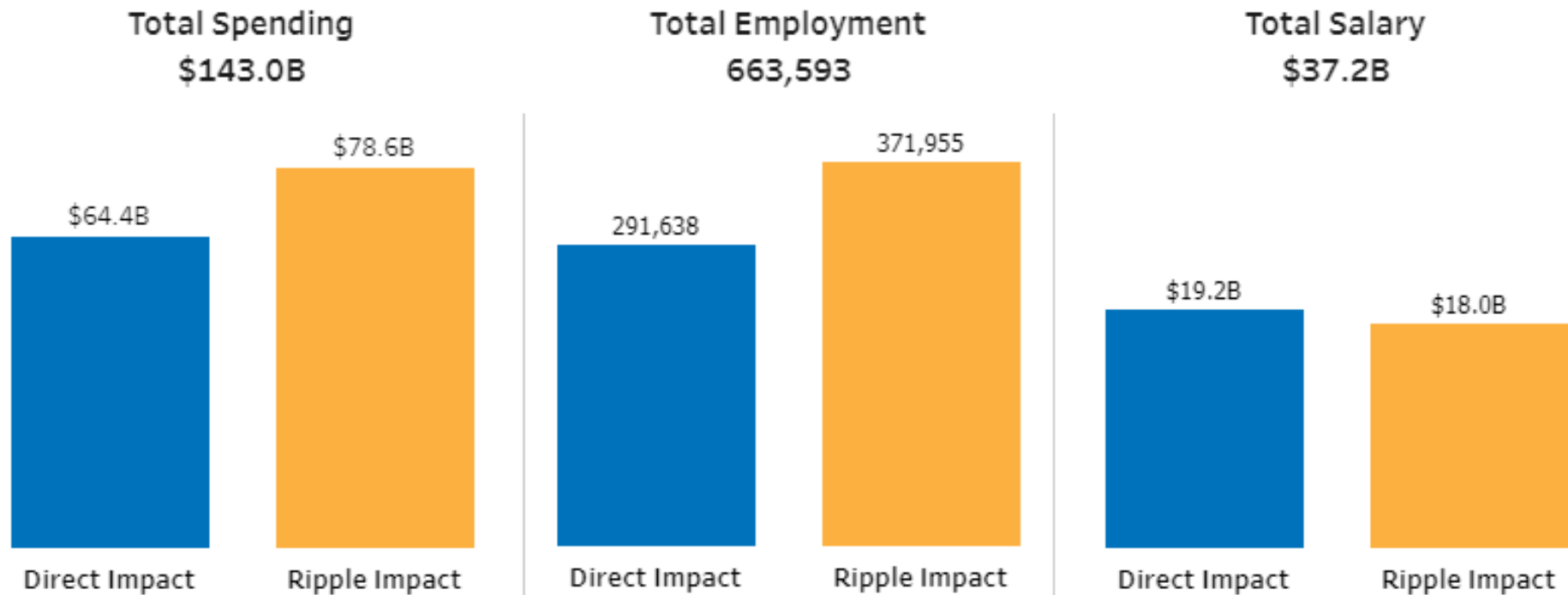
The Potential Effect on the Hospital Revenues:

- In 2021, U.S. hospitals are expected to have a revenue loss between \$53-\$122 billion, including:
  - \$27-\$64 in outpatient revenue
  - \$17-\$41 billion in inpatient revenue
  - \$9-\$17 billion in emergency department revenue
- In 2020, hospitals experienced increased costs to continue in 2021, such as:
  - 17 percent increase in drug expenses
  - 16 percent increase in purchased service expenses
  - 14 percent increase in labor expenses
  - 13 percent increase in supply expenses



# Economic Impact of Pennsylvania Hospitals

## Economic Impact - Fiscal Year (FY) 2019



# To Conclude...

- COVID-19 has taken a toll on Pennsylvania and the commonwealth's hospitals and health systems were at the epicenter.
- Pennsylvania appears to have contained the virus more successfully compared to the rest of the nation, but the death rate was higher than national rate.
- The state's rural population had an overall higher case rate than its urban population.
- Black and Latino/a/x populations of Pennsylvania were disproportionately affected by the virus.
- Several resources estimated the financial cost of the pandemic for hospitals
  - \$4.1-\$5 billion for Pennsylvania hospitals in 2020
  - \$53-\$122 billion for U.S. hospitals in 2021

<https://www.haponline.org/Education/HAP-Center-for-Health-Policy-Research>





# Questions?

