Supplemental Online Content

Acosta AM, Garg S, Pham H, et al. Racial and ethnic disparities in rates of COVID-19–associated hospitalization, intensive care unit admission, and in-hospital death in the United States from March 2020 to February 2021. JAMA Netw Open. 2021;4(10):e2130479. doi:10.1001/jamanetworkopen.2021.30479

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This supplemental material has been provided by the authors to give readers additional information about their work.
eTable 1. Demographic Characteristics of All vs Sampled Hospitalized Patients, COVID-NET, United States, March 1, 2020–February 28, 2021

| Characteristic                  | All Hospitalized Patients\(^a\) | Sampled Hospitalized Patients\(^b\) |
|--------------------------------|---------------------------------|-----------------------------------|
|                                | Unweighted n | Unweighted % | Unweighted n | Weighted % |
| Total                          | 143,342       | 100          | 25,281       | 100        |
| Age category                   |                |              |              |            |
| 0–17 years                     | 2,202          | 1.5          | 2,188        | 1.5        |
| 18–49 years                    | 35,719         | 24.9         | 8,429        | 24.9       |
| 50–64 years                    | 38,860         | 27.1         | 6,484        | 27.2       |
| ≥65 years                      | 66,561         | 46.4         | 8,180        | 46.4       |
| Race and Ethnicity             |                |              |              |            |
| Hispanic or Latino             | 28,762         | 20.1         | 6,134        | 19.7       |
| Non-Hispanic American Indian or Alaska Native | 2,056 | 1.4 | 513 | 1.7 |
| Non-Hispanic Black             | 40,806         | 28.5         | 5,728        | 27.8       |
| Non-Hispanic Asian or Pacific Islander | 7,737 | 5.4 | 2,005 | 6.7 |
| Non-Hispanic White             | 63,981         | 44.6         | 10,901       | 44.0       |
| Sex                            |                |              |              |            |
| Male                           | 72,159         | 50.3         | 12,768       | 50.2       |
| Female                         | 71,181         | 49.7         | 12,513       | 49.8       |
| Surveillance Site              |                |              |              |            |
| California                     | 11,011         | 7.7          | 1,084        | 7.9        |
| Colorado                       | 11,366         | 7.9          | 1,725        | 8.1        |
| Connecticut                    | 7,131          | 5.0          | 1,181        | 4.8        |
| Georgia                        | 24,200         | 16.9         | 1,537        | 16.5       |
| Iowa                           | 796            | 0.6          | 191          | 0.5        |
| Maryland                       | 32,495         | 22.7         | 2,088        | 22.7       |
| Michigan                       | 4,467          | 3.1          | 808          | 3.1        |
| Minnesota                      | 13,690         | 9.6          | 6,681        | 9.8        |
| New Mexico                     | 6,143          | 4.3          | 887          | 4.4        |
| New York                       | 10,047         | 7.0          | 1085         | 7.0        |
| Ohio                           | 4,066          | 2.8          | 938          | 2.8        |
| Oregon                         | 3,030          | 2.1          | 796          | 2.2        |
| Tennessee                      | 10,176         | 7.1          | 2,355        | 7.0        |
| Utah                           | 4,724          | 3.3          | 3,925        | 3.2        |

\(^a\) Includes the hospitalizations included in the analysis (n=143,342)

\(^b\) Includes sampled patients with completed chart review and a discharge disposition (n=25,281)
## eTable 2. Weighted Prevalence of Select Underlying Medical Conditions in a Sample of 25,281 Hospitalized Patients by Race and Ethnicity and Age Group, COVID-NET, United States, March 1, 2020–February 28, 2021

| Condition                  | Age group | Hispanic or Latino (%) | Non-Hispanic American Indian or Alaska Native (%) | Non-Hispanic Black (%) | Non-Hispanic Asian or Pacific Islander (%) | Non-Hispanic White (%) |
|----------------------------|-----------|------------------------|--------------------------------------------------|------------------------|-------------------------------------------|------------------------|
| Any underlying condition  | All ages  | 82.1                   | 90.0                                             | 94.4                   | 88.9                                      | 94.4                   |
|                            | 0-17 years| 54.8                   | 58.4                                             | 60.6                   | 46.8                                      | 44.1                   |
|                            | 18-49 years| 78.8                  | 88.6                                             | 91.3                   | 86.0                                      | 86.0                   |
|                            | 50-64 years| 81.7                  | 95.0                                             | 94.5                   | 83.9                                      | 93.0                   |
|                            | 65+ years  | 92.8                   | 88.4                                             | 98.0                   | 94.5                                      | 97.4                   |
| Hypertension               | All ages  | 37.7                   | 52.3                                             | 67.6                   | 54.6                                      | 63.9                   |
|                            | 0-17 years| 1.8                    | 0.0                                              | 2.3                    | 1.7                                       | 0.8                    |
|                            | 18-49 years| 15.9                  | 20.7                                             | 37.1                   | 17.9                                      | 28.0                   |
|                            | 50-64 years| 48.6                  | 67.6                                             | 73.3                   | 54.2                                      | 56.4                   |
|                            | 65+ years  | 72.6                   | 66.4                                             | 87.2                   | 78.5                                      | 75.6                   |
| Obesity                    | All ages  | 51.2                   | 47.6                                             | 55.1                   | 31.7                                      | 45.0                   |
|                            | 0-17 years| 43.9                   | 66.9                                             | 33.3                   | 37.0                                      | 20.4                   |
|                            | 18-49 years| 60.4                  | 69.4                                             | 66.7                   | 57.6                                      | 63.9                   |
|                            | 50-64 years| 50.7                  | 64.6                                             | 64.8                   | 34.3                                      | 59.6                   |
|                            | 65+ years  | 36.8                   | 21.3                                             | 40.8                   | 18.0                                      | 36.2                   |
| Chronic metabolic disease  | All ages  | 38.6                   | 55.0                                             | 44.5                   | 47.1                                      | 44.2                   |
|                            | 0-17 years| 4.3                    | 4.1                                              | 5.6                    | 5.0                                       | 5.6                    |
|                            | 18-49 years| 23.0                  | 36.1                                             | 26.6                   | 25.4                                      | 25.3                   |
|                            | 50-64 years| 49.4                  | 61.7                                             | 46.8                   | 45.1                                      | 44.5                   |
|                            | 65+ years  | 60.5                   | 65.6                                             | 57.1                   | 62.6                                      | 48.9                   |
| Diabetes mellitus          | All ages  | 33.6                   | 48.3                                             | 41.1                   | 42.2                                      | 32.3                   |
|                            | 0-17 years| 3.0                    | 4.1                                              | 4.7                    | 0.8                                       | 2.9                    |
|                            | 18-49 years| 19.2                  | 32.2                                             | 23.9                   | 23.7                                      | 17.1                   |
|                            | 50-64 years| 45.0                  | 58.4                                             | 42.7                   | 37.7                                      | 34.4                   |
|                            | 65+ years  | 52.0                   | 54.4                                             | 53.6                   | 57.0                                      | 35.3                   |
| Chronic lung disease       | All ages  | 16.5                   | 19.8                                             | 28.5                   | 19.6                                      | 33.6                   |
| Age Group          | Asthma | All ages | Coronary artery disease | Heart failure | Neurologic disease |
|-------------------|--------|----------|--------------------------|---------------|-------------------|
|                   |        |          |                          |               |                   |
| 0-17 years        | 13.8   | 10.2     | 4.9                      | 5.0           | 9.7               |
| 18-49 years       | 14.2   | 10.4     | 0.6                      | 0.0           | 0.1               |
| 50-64 years       | 17.3   | 10.3     | 5.6                      | 5.6           | 13.2              |
| 65+ years         | 20.5   | 9.9      | 13.3                     | 13.2          | 28.1              |
| **Asthma**        |        |          |                          |               |                   |
| All ages          | 13.8   | 10.2     | 4.9                      | 5.0           | 9.7               |
| 0-17 years        | 13.8   | 10.2     | 4.9                      | 5.0           | 9.7               |
| 18-49 years       | 14.2   | 10.4     | 0.6                      | 0.0           | 0.1               |
| 50-64 years       | 17.3   | 10.3     | 5.6                      | 5.6           | 13.2              |
| 65+ years         | 20.5   | 9.9      | 13.3                     | 13.2          | 28.1              |
| **Chronic Obstructive Pulmonary Disease** |        |          |                          |               |                   |
| All ages          | 2.2    | 3.0      | 8.0                      | 3.0           | 16.5              |
| 0-17 years        | 0.1    | 0.0      | 0.0                      | 0.0           | 0.0               |
| 18-49 years       | 0.1    | 0.1      | 0.4                      | 0.0           | 2.3               |
| 50-64 years       | 0.9    | 3.8      | 8.1                      | 1.6           | 12.6              |
| 65+ years         | 8.5    | 4.6      | 13.7                     | 5.6           | 21.2              |
| **Cardiovascular disease** |        |          |                          |               |                   |
| All ages          | 16.2   | 27.5     | 36.8                     | 28.5          | 46.7              |
| 0-17 years        | 5.7    | 0.0      | 4.7                      | 6.7           | 4.1               |
| 18-49 years       | 5.9    | 6.2      | 13.8                     | 5.4           | 11.1              |
| 50-64 years       | 15.4   | 30.5     | 37.2                     | 18.8          | 33.5              |
| 65+ years         | 39.8   | 41.6     | 54.2                     | 48.2          | 60.1              |
| **Coronary artery disease** |        |          |                          |               |                   |
| All ages          | 4.9    | 12.2     | 10.5                     | 9.6           | 19.1              |
| 0-17 years        | 0.0    | 0.0      | 0.2                      | 0.0           | 0.0               |
| 18-49 years       | 0.6    | 0.8      | 1.7                      | 0.3           | 1.4               |
| 50-64 years       | 5.6    | 9.4      | 10.2                     | 8.3           | 11.4              |
| 65+ years         | 13.3   | 22.5     | 17.4                     | 16.3          | 26.1              |
| **Heart failure** |        |          |                          |               |                   |
| All ages          | 5.0    | 13.1     | 15.2                     | 9.7           | 14.2              |
| 0-17 years        | 0.1    | 0.0      | 0.2                      | 0.0           | 0.2               |
| 18-49 years       | 2.4    | 1.6      | 7.1                      | 0.6           | 2.1               |
| 50-64 years       | 3.3    | 3.2      | 15.1                     | 5.4           | 9.7               |
| 65+ years         | 13.1   | 28.1     | 21.7                     | 17.8          | 18.8              |
| **Neurologic disease** |        |          |                          |               |                   |
| All ages          | 9.7    | 18.5     | 20.4                     | 14.4          | 26.9              |
| 0-17 years        | 13.2   | 12.5     | 13.3                     | 12.5          | 13.3              |
| 18-49 years       | 3.7    | 9.2      | 10.3                     | 6.3           | 14.7              |
| 50-64 years       | 7.1    | 13.6     | 14.8                     | 6.8           | 18.6              |

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| Condition                                    | All ages | 0-17 years | 18-49 years | 50-64 years | 65+ years |
|----------------------------------------------|----------|------------|-------------|-------------|-----------|
| **Renal disease**                            |          |            |             |             |           |
| All ages                                    | 9.5      | 0.7        | 4.3         | 11.2        | 19.0      |
| 0-17 years                                  |          |            |             |             |           |
| 18-49 years                                 |          |            |             |             |           |
| 50-64 years                                 |          |            |             |             |           |
| 65+ years                                   |          |            |             |             |           |
| **Immunosuppressive condition**              |          |            |             |             |           |
| All ages                                    | 6.5      | 5.1        | 3.9         | 9.4         | 8.2       |
| 0-17 years                                  |          |            |             |             |           |
| 18-49 years                                 |          |            |             |             |           |
| 50-64 years                                 |          |            |             |             |           |
| 65+ years                                   |          |            |             |             |           |
| **Gastrointestinal or liver disease**        |          |            |             |             |           |
| All ages                                    | 3.5      | 1.5        | 2.3         | 4.7         | 4.6       |
| 0-17 years                                  |          |            |             |             |           |
| 18-49 years                                 |          |            |             |             |           |
| 50-64 years                                 |          |            |             |             |           |
| 65+ years                                   |          |            |             |             |           |
| **Hematologic condition**                   |          |            |             |             |           |
| All ages                                    | 1.5      | 2.3        | 1.0         | 1.7         | 2.1       |
| 0-17 years                                  |          |            |             |             |           |
| 18-49 years                                 |          |            |             |             |           |
| 50-64 years                                 |          |            |             |             |           |
| 65+ years                                   |          |            |             |             |           |
| **Rheumatologic or autoimmune disease**     |          |            |             |             |           |
| All ages                                    | 1.8      | 0.5        | 1.0         | 2.8         | 2.2       |
| 0-17 years                                  |          |            |             |             |           |
| 18-49 years                                 |          |            |             |             |           |
| 50-64 years                                 |          |            |             |             |           |
| 65+ years                                   |          |            |             |             |           |

*Data are collected on underlying medical conditions within the major categories of cardiovascular, chronic metabolic, chronic lung, hematologic, immunosuppressive, neurologic, rheumatologic, and renal disease, in addition to specific conditions such as diabetes mellitus type 1 or 2, hypertension, and obesity (defined as a calculated body mass index ≥30 kg/m²)."
eTable 3. Monthly Age-Adjusted COVID-19–Associated Hospitalization Rates (per 100 000 Population) and Rate Ratios by Race and Ethnicity, COVID-NET, United States, March 1, 2020–February 28, 2021

|       | Hispanic or Latino | Non-Hispanic American Indian or Alaska Native | Non-Hispanic Black | Non-Hispanic Asian or Pacific Islander | Non-Hispanic White |
|-------|-------------------|-----------------------------------------------|--------------------|----------------------------------------|--------------------|
|       | Rate (95% CI) per 100,000 population | RR (95% CI) per 100,000 population | Rate (95% CI) per 100,000 population | RR (95% CI) per 100,000 population | Rate (95% CI) per 100,000 population | RR (95% CI) per 100,000 population |
| Mar   | 20.9 (19.2-22.5) | 2.44 (2.23 - 2.68) | 12.9 (7.8-18.1) | 1.51 (1.02 - 2.25) | 41.3 (39.5-43.1) | 4.83 (4.53 - 5.14) | 10.0 (8.8-11.2) | 1.17 (1.02 - 1.33) | 8.6 (8.2-8.9) | 1 [reference] |
| Apr   | 81.8 (78.6-85.1) | 3.95 (3.76 - 4.15) | 88.7 (75.2-102.2) | 4.29 (3.67 - 5.00) | 94.2 (91.4-97.0) | 4.55 (4.37 - 4.74) | 23.0 (21.1-24.9) | 1.11 (1.02 - 1.21) | 20.7 (20.1-21.3) | 1 [reference] |
| May   | 82.4 (79.2-85.6) | 5.52 (5.24 - 5.81) | 127.5 (111.4-143.6) | 8.55 (7.50 - 9.74) | 62.2 (60.0-64.5) | 4.17 (3.97 - 4.38) | 19.5 (17.8-21.2) | 1.31 (1.19 - 1.43) | 14.9 (14.4-15.4) | 1 [reference] |
| Jun   | 52.2 (49.7-54.7) | 6.99 (6.53 - 7.49) | 55.3 (44.8-65.8) | 7.40 (6.09 - 9.01) | 37.2 (35.5-38.9) | 4.98 (4.66 - 5.32) | 13.5 (12.1-14.9) | 1.81 (1.61 - 2.03) | 7.5 (7.1-7.8) | 1 [reference] |
| Jul   | 74.4 (71.3-77.5) | 5.28 (5.00 - 5.58) | 53.0 (42.8-63.3) | 3.76 (3.09 - 4.58) | 76.8 (74.3-79.2) | 5.45 (5.19 - 5.71) | 18.1 (16.5-19.7) | 1.28 (1.17 - 1.41) | 14.1 (13.6-14.6) | 1 [reference] |
| Aug   | 49.0 (46.5-51.5) | 4.30 (4.03 - 4.59) | 23.5 (16.5-30.4) | 2.06 (1.53 - 2.77) | 46.5 (44.6-48.4) | 4.08 (3.85 - 4.32) | 19.1 (17.4-20.8) | 1.67 (1.52 - 1.84) | 11.4 (10.9-11.8) | 1 [reference] |
| Sep   | 35.7 (33.5-37.8) | 3.55 (3.29 - 3.82) | 27.2 (19.9-34.5) | 2.70 (2.06 - 3.55) | 26.6 (25.2-28.1) | 2.65 (2.47 - 2.84) | 13.8 (12.4-15.3) | 1.38 (1.23 - 1.54) | 10.1 (9.6-10.5) | 1 [reference] |
| Oct   | 64.8 (61.8-67.8) | 3.23 (3.06 - 3.41) | 58.8 (47.8-69.7) | 2.93 (2.43 - 3.54) | 39.9 (38.1-41.7) | 1.99 (1.89 - 2.10) | 16.4 (14.9-18.0) | 0.82 (0.74 - 0.90) | 20.0 (19.4-20.6) | 1 [reference] |
|    | Hospitalization Rate per 100,000 Population | 95% CI       | 95% CI       | 95% CI       | 95% CI       | 95% CI       | 95% CI       |
|----|------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| **Nov** | 125.4 (121.1-129.6) | 2.58 (2.48-2.68) | 181.7 (162.3-201.1) | 3.74 (3.35-4.17) | 83.1 (80.5-85.7) | 1.71 (1.65-1.77) | 0.80 (0.75-0.85) | 48.6 (47.7-49.5) |
| **Dec** | 132.2 (127.8-136.6) | 2.25 (2.17-2.34) | 216.4 (195.1-237.8) | 3.69 (3.34-4.07) | 127.9 (124.7-131.2) | 2.18 (2.11-2.25) | 0.90 (0.85-0.95) | 58.7 (57.7-59.7) |
| **Jan** | 103.6 (99.7-107.4) | 2.21 (2.12-2.30) | 160.5 (142.1-178.9) | 3.42 (3.05-3.84) | 113.3 (110.3-116.3) | 2.42 (2.34-2.50) | 1.01 (0.95-1.08) | 46.9 (46.0-47.8) |
| **Feb** | 49.1 (46.4-51.7) | 2.20 (2.07-2.33) | 45.2 (35.7-54.7) | 2.03 (1.64-2.50) | 61.8 (59.6-64.0) | 2.77 (2.64-2.90) | 0.97 (0.89-1.06) | 22.3 (21.7-23.0) |

*Monthly hospitalization rates per 100,000 population were calculated using all hospitalized persons in COVID-NET with known race and ethnicity for each month for the numerator and NCHS vintage 2019 bridged-race population estimates for the denominator, and adjusting for age.*
eFigure 1. Monthly COVID-19–Associated Hospitalization Rates (per 100,000 Population) by Race and Ethnicity and Age Group, COVID-NET, United States, March 1, 2020–February 28, 2021

A, Children aged <18 years

B, Adults aged 18-49 years
C, Adults aged 50-64 years

D, Adults aged ≥65 years
Supplemental Figure 2. Age-Adjusted Hospitalization, ICU Admission, and In-Hospital Mortality Rates by Race and Ethnicity and State, COVID-NET, March 1, 2020–February 28, 2021

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Supplemental Figure 2 continued...

*Rates of 0.0 indicate 0 patients within that strata of race and ethnicity and state