Medicare COVID-19 Data Snapshot Overview

Our Medicare COVID-19 Data Snapshot is about people with Medicare who are diagnosed with COVID-19. The data sources for the Snapshot are Medicare Fee-for-Service (FFS) claims data, Medicare Advantage (MA) encounter data, and Medicare enrollment information.

Medicare COVID-19 Cases and Hospitalizations

Medicare COVID-19 Case: A count of beneficiaries with a diagnosis of COVID-19 on a claim or encounter record for *any* healthcare setting (e.g., physician's office, inpatient hospital, laboratory).

We use the following International Classification of Diseases (ICD), Tenth Revision (ICD-10), diagnosis codes to identify COVID-19 cases on claims and encounters:
- B97.29 (other coronavirus as the cause of diseases classified elsewhere) - before April 1, 2020
- U07.1 (2019 Novel Coronavirus, COVID-19) – from April 1, 2020 onward.

We find COVID-19 cases using ICD-10 diagnosis codes on claims and encounters. The Centers for Disease Control and Prevention (CDC) has issued COVID-19 ICD-10 coding guidance. Diagnosis code accuracy depends on: (1) how clinicians document (e.g., omitting information or using synonyms or abbreviations to describe a patient's condition) and (2) medical coder experience and training. As a result, we consider diagnosis information from claims and encounters less reliable than clinical information collected other ways (e.g., chart reviews). Since we don't need this type of clinical information to run our programs, we only collect it in limited circumstances (e.g., for program integrity purposes).

Medicare COVID-19 Hospitalization: A count of beneficiaries with a diagnosis of COVID-19 on a claim or encounter record for an *inpatient hospital* setting. These beneficiaries are a subset of the Medicare COVID-19 Cases described above.

For snapshots with data received by March 19, 2021 and after, we use average monthly enrollment when calculating rates per 100,000 beneficiaries. See the methodology document for more details. These changes will impact case and hospitalization rates and must be considered when comparing rates to previously released snapshots.

Medicare Enrollee Facts

As of early 2021, around 63.1 million Americans are enrolled in Medicare: 57% in Medicare Fee-for-Service (FFS), also known as Original Medicare, and 43% in Medicare Advantage (MA) plans.

Race/Ethnicity Data

A person's race/ethnicity is identified using data collected by the Social Security Administration (SSA) with adjustments to improve the race/ethnicity classification for Hispanic and Asian/Pacific Islander populations. Specifically, CMS worked with the Research Triangle Institute (RTI) to develop an algorithm that uses Census surname lists for likely Hispanic and Asian/Pacific Islander origin and simple geography (residence in Puerto Rico or Hawaii) to improve the SSA race/ethnicity data. The variable developed using this algorithm is often referred to as the RTI Race Code. The race/ethnicity classifications are: American Indian/Alaska Native, White, Black/African American, Asian/Pacific Islander, Hispanic, and Other/Unknown.

Note: Even with the application of the RTI algorithm, comparisons to self-reported data show that race/ethnicity is still misclassified for some people (self-reported data is only available through survey and assessment data for a small subset of the Medicare population). The RTI algorithm improves the accuracy of Medicare race/ethnicity data, but continues to undercount people with a race/ethnicity of Asian/Pacific Islander and American Indian/Alaska Native, and to a lesser extent Hispanic, in the Medicare population.

Medicare Entitlement

Medicare entitlement is available to three basic groups of "insured individuals" – people age 65 and older (*aged)*, younger people with disabilities (*disabled)*, and people with end stage renal disease *(ESRD)*. How a person qualifies for Medicare can change over time (e.g., when a person turns 65 his/her entitlement reason changes to *aged*). For purposes of this snapshot, people who have ESRD, regardless of whether they are also aged or disabled, are classified as *ESRD*. In all other cases, we use a person's current reason for entitlement (*aged* or *disabled*).

For additional details on data limitations, please see the disclaimer on the next page and view the methodology document available here.

What You Should Know When Using Our Data (Disclaimer)

You should use caution when interpreting our data. We collect Medicare claims and encounter data for payment and other program purposes, but not for public health surveillance. There will always be a delay or "claims lag" between when a service occurs and when the claim or encounter for that service is in our database. The length of the lag depends on the service type and program. There may also be longer claims lag due to the pandemic, but we're not sure of the impact.

Historically, 90% of FFS claims across all claim types are submitted within 3 months, while 90% of MA encounters across all claim types are submitted within 12 months. We expect timely FFS claims submissions because providers submit claims directly to us for payment. A longer claims lag is expected for Medicare Advantage encounters because Medicare Advantage Organizations: (1) collect encounters before submitting them to us and (2) have more time to submit encounters because there are different programmatic uses for the data, like risk adjustment.

Percent of Medicare FFS Claims Received by Time after Date of Service

Claim Type	1 Month[†]	2 Months	3 Months		6 Months		9 Months		12 Months
Inpatient	43%	91%	96%		99%		99%		100%
SNF	2%	81%	94%		98%		99%		100%
Hospice	3%	81%	92%		98%		99%		100%
Home Health	22%	74%	90%		97%		99%		100%
Outpatient	37%	90%	95%		98%		99%		100%
Carrier	43%	87%	93%		98%		99%		100%
DME	57%	84%	90%		96%		98%		100%

Percent of Medicare Advantage Claims Received by Time after Date of Service

Claim Type	1 Month	2 Months	3 Months		6 Months		9 Months		12 Months
Inpatient	11%	52%	61%		80%		88%		92%
SNF	5%	46%	66%		81%		87%		92%
Home Health	11%	52%	65%		83%		89%		93%
Outpatient	17%	63%	73%		87%		92%		95%
Professional	21%	62%	73%		87%		93%		95%
DME	23%	61%	72%		86%		91%		94%

Month 1 is the service month (i.e., month for the claim through date); FFS claims analysis based on data for July 2016; MA encounter data shows the % of encounters reported to us by 30 day increments from the through date of the service for January 2018. The data in this table is meant to be descriptive, but shouldn't be used to adjust data presented in this update due to pandemic-related claims submission uncertainties.
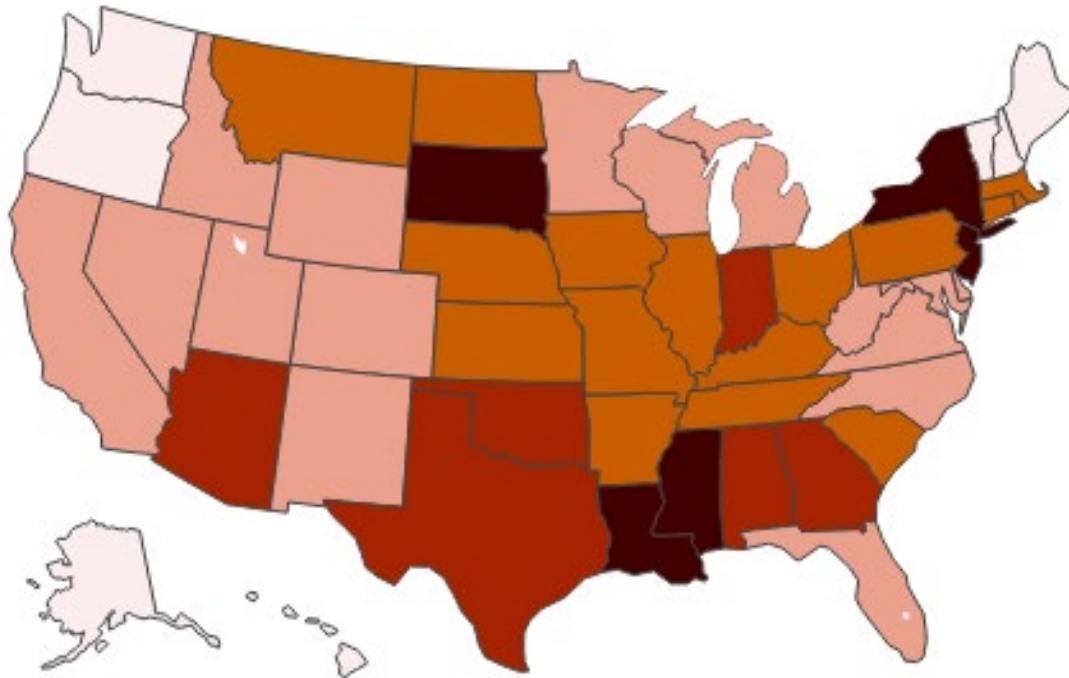
COVID-19 Cases
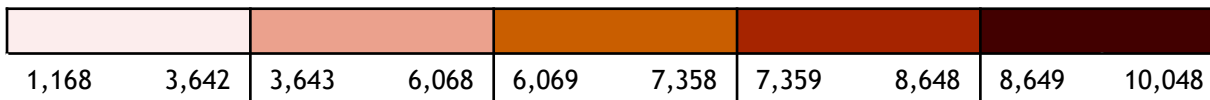
4,103,791 Total COVID-19 Cases   **6,526** COVID-19 Cases per 100k

COVID-19 Cases per 100K by Geography

Rural Areas: **6,743** per 100K

Urban Areas: **6,537** per 100K

Map Scale: per 100K

1,168	3,642	3,643	6,068	6,069	7,358	7,359	8,648	8,649	10,048

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COVID-19 Cases

4,103,791 Total COVID-19 Cases   **6,526** COVID-19 Cases per 100k

COVID-19 Case Trend

Note: Data for recent weeks is likely to be adjusted upward due to claims lag; see page 2 of this data update for additional details on claims lag. The downward trend that appears in early 2021 is likely due to a number of factors, including continued use of masks, social distancing and the availability of multiple vaccines to protect against COVID-19. For data on COVID-19 vaccinations, visit the CDC COVID-19 Data Tracker here: https://covid.cdc.gov/covid-data-tracker/#vaccinations.

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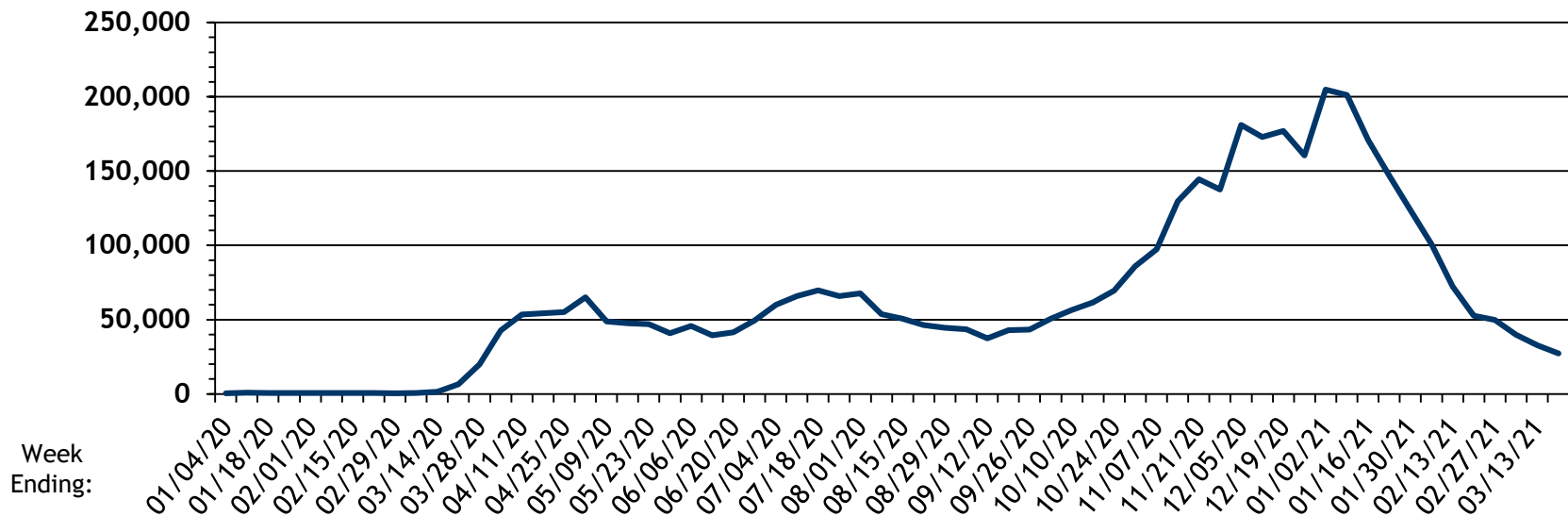
COVID-19 Cases

4,103,791 Total COVID-19 Cases   **6,526** COVID-19 Cases per 100k

COVID-19 Cases per 100K by Beneficiary Characteristics

	Value
Medicare Only	5,239
Dual Medicare and Medicaid	12,193
Aged	6,412
Disabled	6,516
ESRD	20,610

	Value
Male	6,252
Female	6,754
AI/AN	9,924
Asian/Pacific Islander	4,571
Black/African American	8,087
Hispanic	9,059
White	6,110
Oth/Unk	4,733
<65	6,776
65-74	5,380
75-84	6,691
85+	10,298

Note: AI/AN = American Indian/Alaska Native

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Preliminary Medicare COVID-19 Data Snapshot:
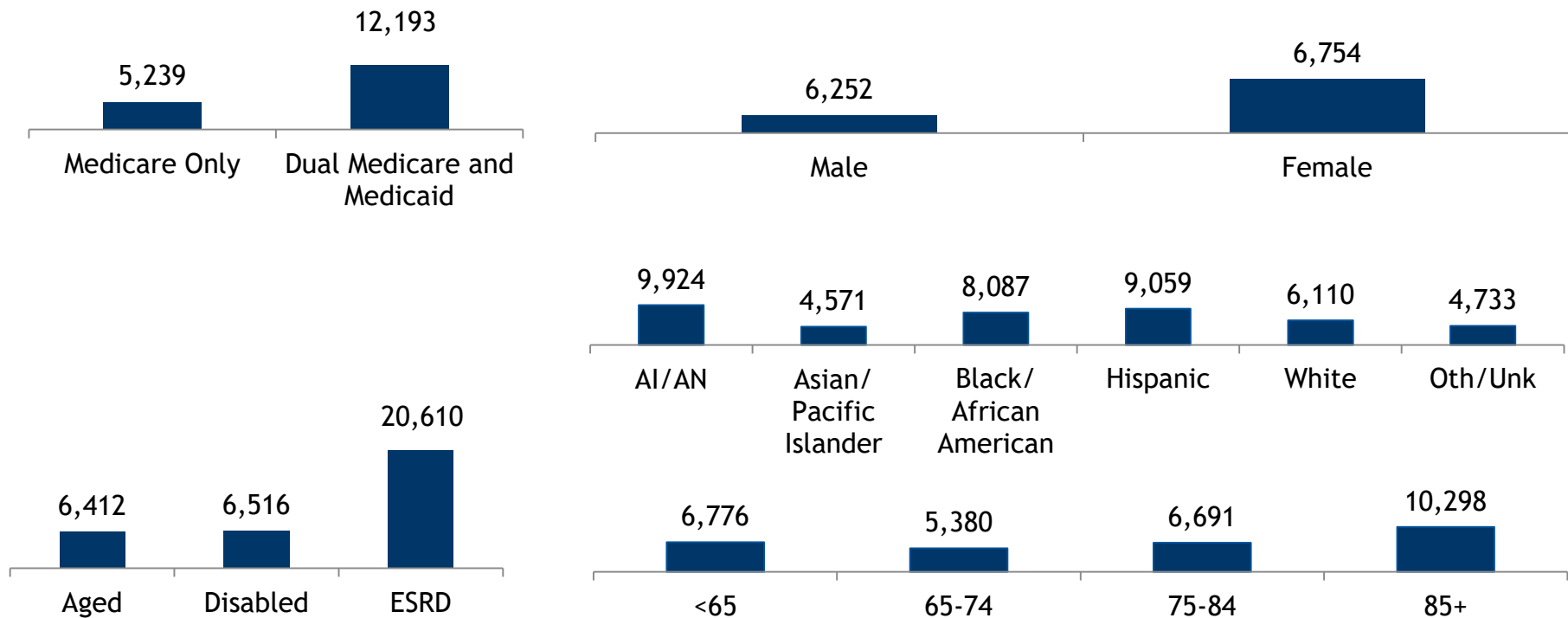*Medicare Claims and Encounter Data: January 1, 2020 to March 20, 2021, Received by April 16, 2021*
COVID-19 Cases

4,103,791 Total COVID-19 Cases   **6,526** COVID-19 Cases per 100k

COVID-19 Cases per 100K by Beneficiary Characteristics
-Medicare Only vs. Dual Medicare and Medicaid Eligibility-

☐ Medicare Only   ☐ Dual Medicare and Medicaid

Aged: 5,213 / 14,235
Disabled: 4,877 / 7,997
ESRD: 15,434 / 27,835
Female: 5,249 / 12,680
Male: 5,229 / 11,477

AI/AN: 7,706 / 13,743
Asian/Pacific Islander: 3,175 / 7,203
Black/African American: 5,821 / 12,066
Hispanic: 6,727 / 13,359
White: 5,149 / 12,567
Oth/Unk: 3,834 / 9,738

<65: 5,028 / 8,297
65-74: 4,561 / 10,776
75-84: 5,435 / 15,304
85+: 7,613 / 23,368

Note: AI/AN = American Indian/Alaska Native

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COVID-19 Cases

4,103,791 Total COVID-19 Cases   **6,526** COVID-19 Cases per 100k

COVID-19 Cases per 100K by Beneficiary Characteristics
- By Race/Ethnicity -

Legend:
- AI/AN
- Asian/Pacific Islander
- Black/African American
- Hispanic
- White

Age Group	AI/AN	Asian/Pacific Islander	Black/African American	Hispanic	White
Less than 65	9,312	6,008	8,254	9,822	5,713
65-74	9,183	3,791	6,940	8,427	4,889
75-84	10,609	4,561	8,807	9,087	6,298
85 and over	13,103	7,052	11,751	10,562	10,308
Aged	9,916	4,381	7,797	8,749	6,117
Disabled	8,463	5,564	7,746	9,264	5,637
ESRD	29,307	15,833	22,184	26,674	17,531

Note: AI/AN = American Indian/Alaska Native

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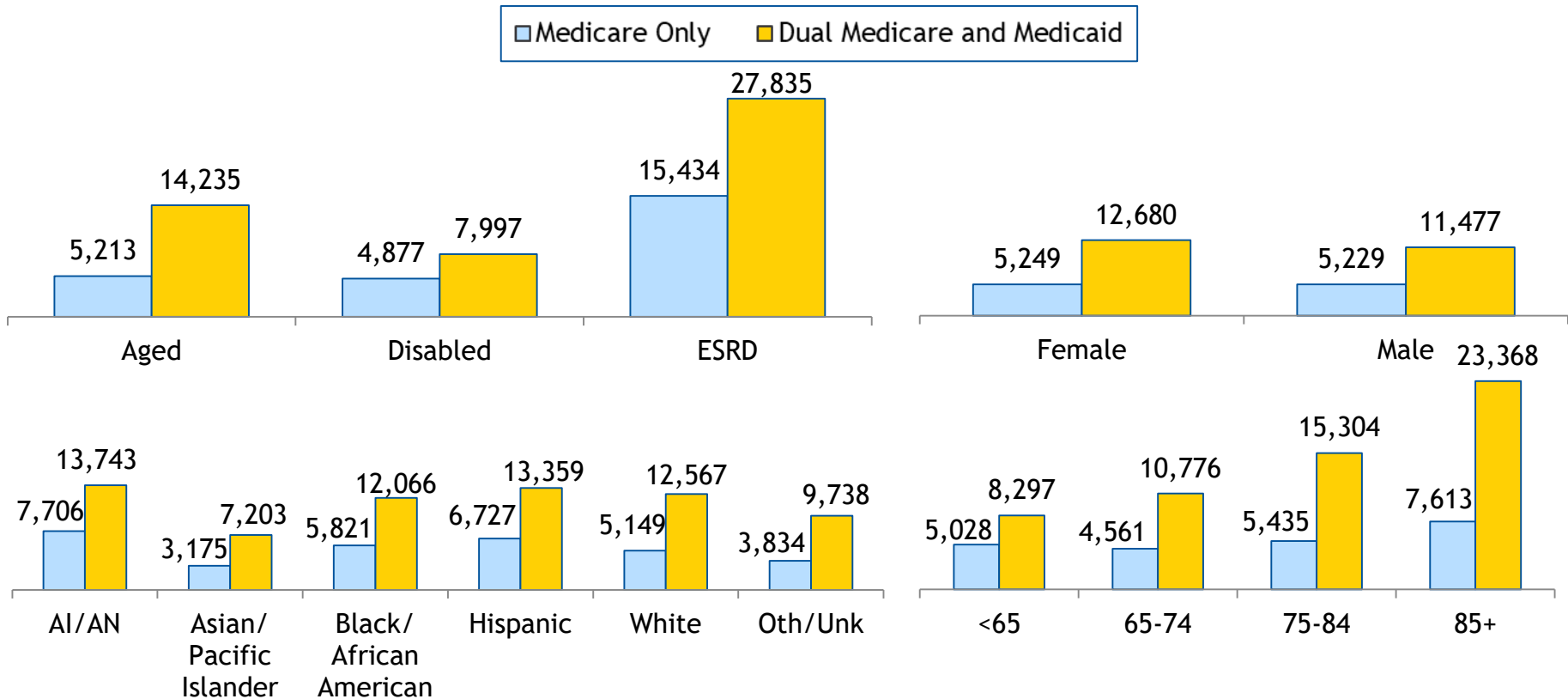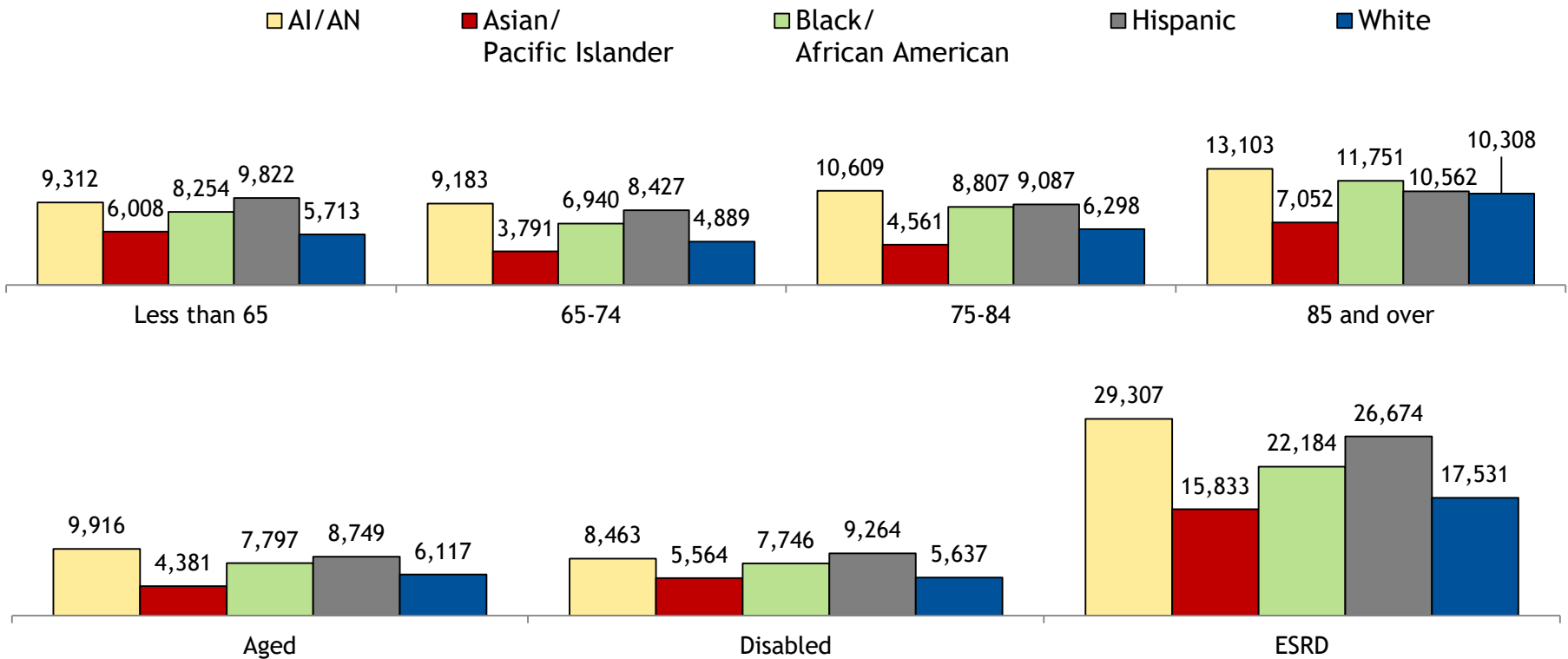*Medicare Claims and Encounter Data: January 1, 2020 to March 20, 2021, Received by April 16, 2021*
COVID-19 Cases

4,103,791 Total COVID-19 Cases   **6,526** COVID-19 Cases per 100k

COVID-19 Cases per 100K by Beneficiary Characteristics
- By Race/Ethnicity -

Legend:
- ☐ AI/AN
- ■ Asian/Pacific Islander
- ☐ Black/African American
- ■ Hispanic
- ■ White

Female
AI/AN	Asian/Pacific Islander	Black/African American	Hispanic	White
10,308	4,385	8,337	9,261	6,343

Male
AI/AN	Asian/Pacific Islander	Black/African American	Hispanic	White
9,431	4,806	7,757	8,822	5,832

Medicare Only
AI/AN	Asian/Pacific Islander	Black/African American	Hispanic	White
7,706	3,175	5,821	6,727	5,149

Dual Medicare and Medicaid
AI/AN	Asian/Pacific Islander	Black/African American	Hispanic	White
13,743	7,203	12,066	13,359	12,567

Note: AI/AN = American Indian/Alaska Native

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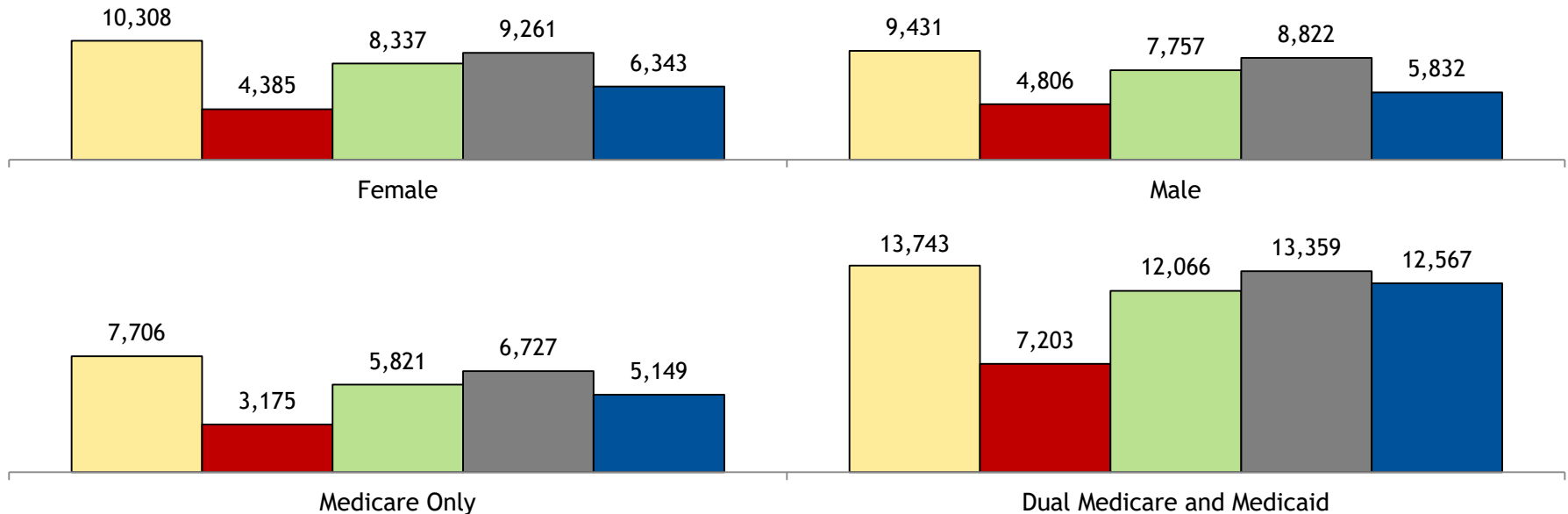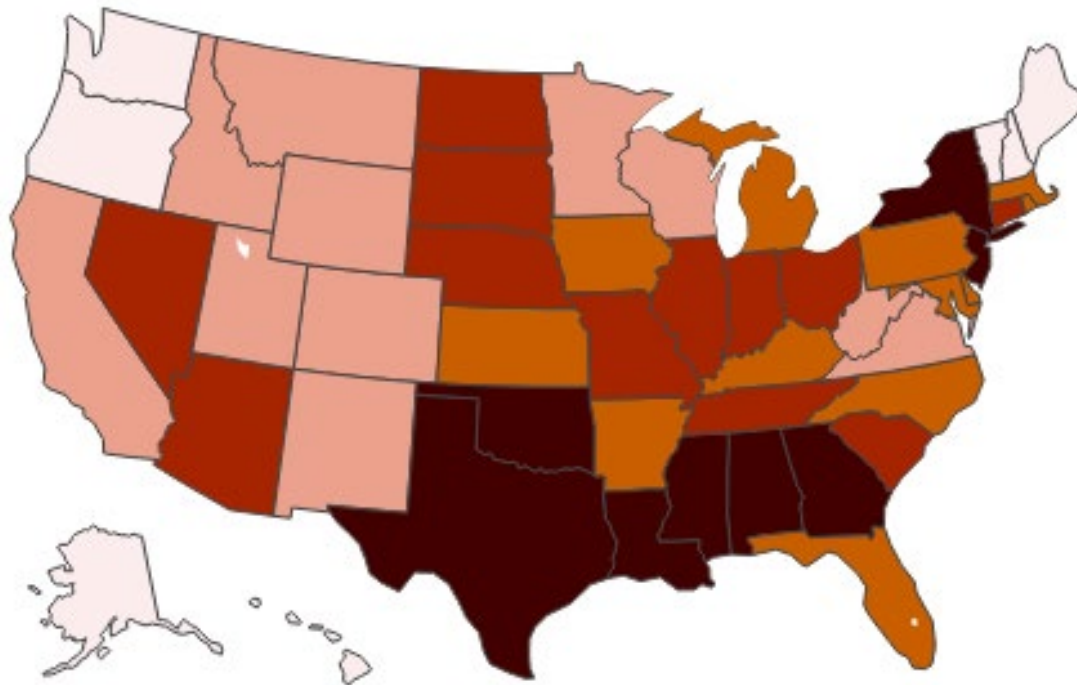# COVID-19 Hospitalizations

1,141,592 Total COVID-19 Hospitalizations   **1,825** COVID-19 Hospitalizations per 100k

COVID-19 Hospitalizations per 100K by Geography

Rural Areas: **1,803** per 100K

Urban Areas: **1,848** per 100K

Map Scale: per 100K

| 312 | 866 | 867 | 1,536 | 1,537 | 1,863 | 1,864 | 2,178 | 2,179 | 2,702 |

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Medicare Claims and Encounter Data: January 1, 2020 to March 20, 2021, Received by April 16, 2021
COVID-19 Hospitalizations

1,141,592 Total COVID-19 Hospitalizations   **1,825** COVID-19 Hospitalizations per 100k
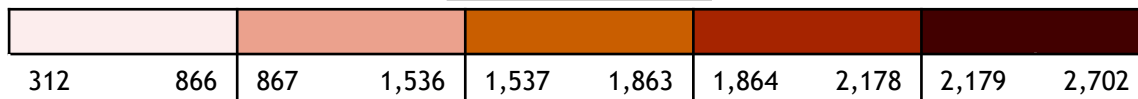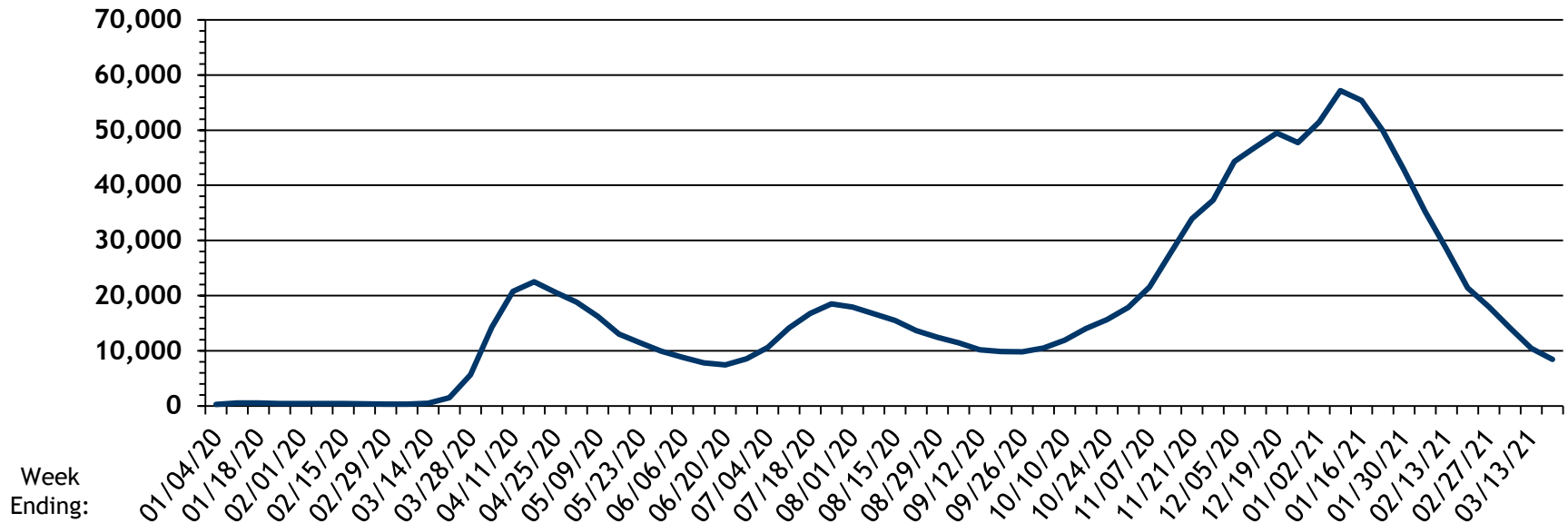
COVID-19 Hospitalizations Trend

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Preliminary Medicare COVID-19 Data Snapshot:

Medicare Claims and Encounter Data: January 1, 2020 to March 20, 2021, Received by April 16, 2021

COVID-19 Hospitalizations

1,141,592 Total COVID-19 Hospitalizations   **1,825** COVID-19 Hospitalizations per 100k

COVID-19 Hospitalizations per 100K by Beneficiary Characteristics

Characteristic	Value
Medicare Only	1,418
Dual Medicare and Medicaid	3,660
Aged	1,787
Disabled	1,582
ESRD	10,952
Male	2,003
Female	1,675
AI/AN	3,991
Asian/Pacific Islander	1,460
Black/African American	3,037
Hispanic	2,685
White	1,570
Oth/Unk	1,150
<65	1,753
65-74	1,279
75-84	2,108
85+	3,339

Note: AI/AN = American Indian/Alaska Native

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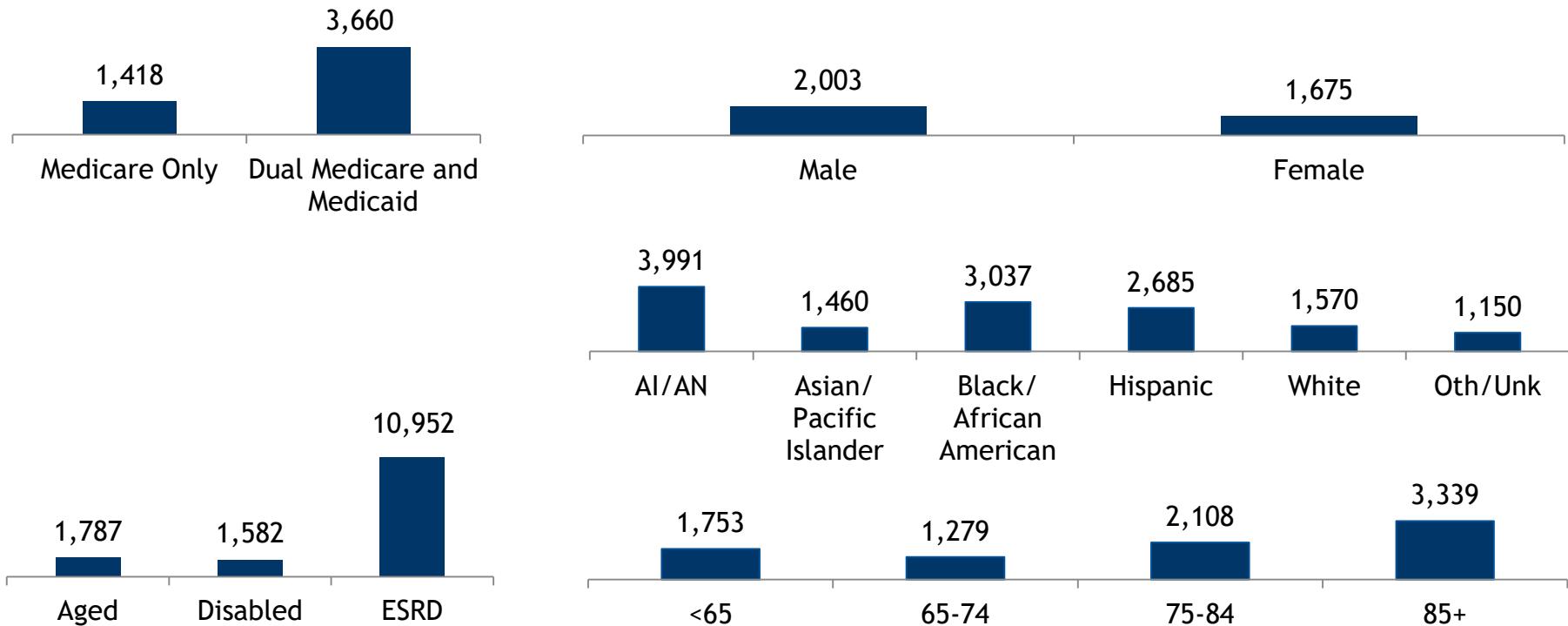
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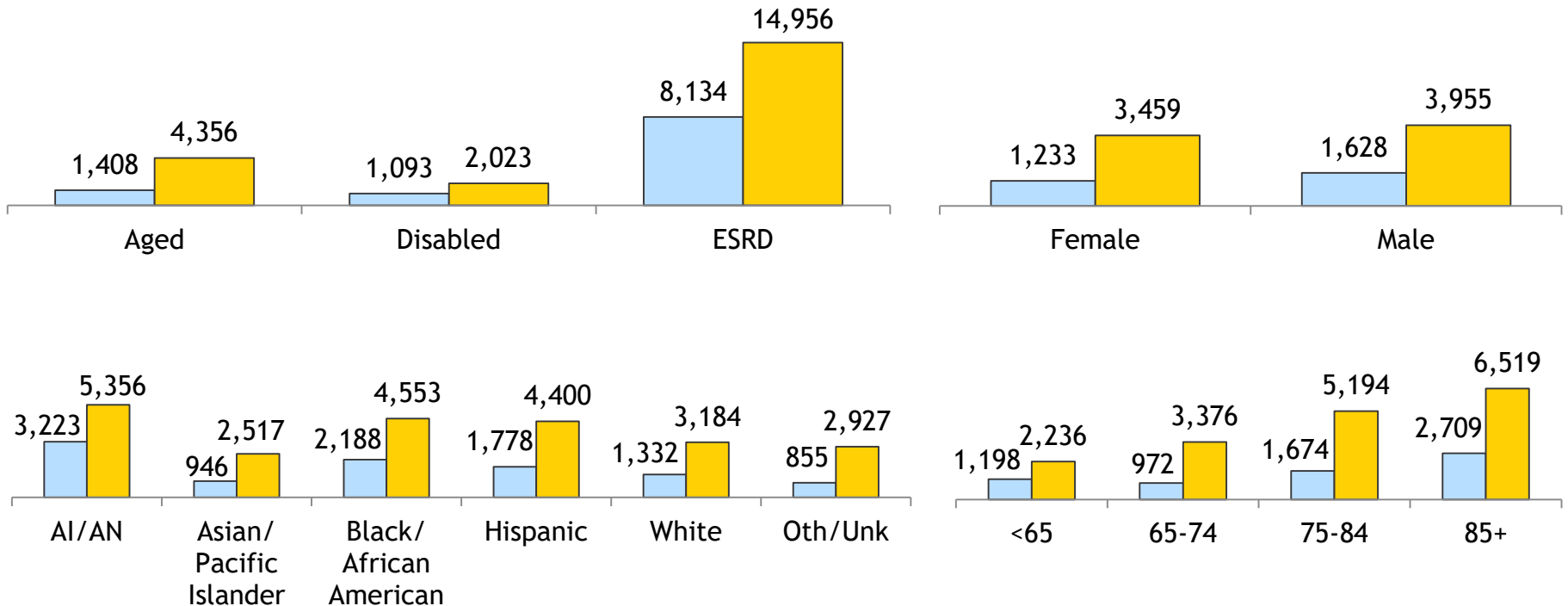*Medicare Claims and Encounter Data: January 1, 2020 to March 20, 2021, Received by April 16, 2021*
COVID-19 Hospitalizations

1,141,592 Total COVID-19 Hospitalizations   **1,825** COVID-19 Hospitalizations per 100k

COVID-19 Hospitalizations per 100K by Beneficiary Characteristics
-Medicare Only vs. Dual Medicare and Medicaid Eligibility-

□ Medicare Only   ■ Dual Medicare and Medicaid

Characteristic	Medicare Only	Dual Medicare and Medicaid
Aged	1,408	4,356
Disabled	1,093	2,023
ESRD	8,134	14,956
Female	1,233	3,459
Male	1,628	3,955
AI/AN	3,223	5,356
Asian/Pacific Islander	946	2,517
Black/African American	2,188	4,553
Hispanic	1,778	4,400
White	1,332	3,184
Oth/Unk	855	2,927
<65	1,198	2,236
65-74	972	3,376
75-84	1,674	5,194
85+	2,709	6,519

Note: AI/AN = American Indian/Alaska Native

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COVID-19 Hospitalizations

1,141,592 Total COVID-19 Hospitalizations   **1,825** COVID-19 Hospitalizations per 100k

COVID-19 Hospitalizations per 100K by Beneficiary Characteristics
- By Race/Ethnicity -

Legend: AI/AN | Asian/Pacific Islander | Black/African American | Hispanic | White

Less than 65
AI/AN	Asian/Pacific Islander	Black/African American	Hispanic	White
3,276	1,877	2,672	2,566	1,282

65-74
AI/AN	Asian/Pacific Islander	Black/African American	Hispanic	White
3,642	999	2,453	2,193	1,021

75-84
AI/AN	Asian/Pacific Islander	Black/African American	Hispanic	White
4,724	1,633	3,801	3,035	1,842

85 and over
AI/AN	Asian/Pacific Islander	Black/African American	Hispanic	White
5,577	2,774	5,111	4,112	3,110

Aged
AI/AN	Asian/Pacific Islander	Black/African American	Hispanic	White
4,082	1,376	2,996	2,607	1,580

Disabled
AI/AN	Asian/Pacific Islander	Black/African American	Hispanic	White
2,766	1,584	2,336	2,168	1,231

ESRD
AI/AN	Asian/Pacific Islander	Black/African American	Hispanic	White
16,857	8,310	12,501	14,446	8,665

Note: AI/AN = American Indian/Alaska Native

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COVID-19 Hospitalizations

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COVID-19 Hospitalizations per 100K by Beneficiary Characteristics
- By Race/Ethnicity -

Legend: ☐ AI/AN   ■ Asian/ Pacific Islander   ☐ Black/ African American   ■ Hispanic   ■ White

Female
- AI/AN: 3,874
- Asian/Pacific Islander: 1,212
- Black/African American: 2,931
- Hispanic: 2,365
- White: 1,425

Male
- AI/AN: 4,140
- Asian/Pacific Islander: 1,768
- Black/African American: 3,176
- Hispanic: 3,057
- White: 1,742

Medicare Only
- AI/AN: 3,223
- Asian/Pacific Islander: 946
- Black/African American: 2,188
- Hispanic: 1,778
- White: 1,332

Dual Medicare and Medicaid
- AI/AN: 5,356
- Asian/Pacific Islander: 2,517
- Black/African American: 4,553
- Hispanic: 4,400
- White: 3,184

Note: AI/AN = American Indian/Alaska Native

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COVID-19 Hospitalizations

1,141,592 Total COVID-19 Hospitalizations   **1,825** COVID-19 Hospitalizations per 100k

Percent of COVID-19 Hospitalizations by Discharge Status

Discharge Status	Percent
Home	36%
Skilled Nursing Facility	19%
Expired	18%
Home Health	17%
Hospice	5%
Another Health Care Facility	3%
Assisted Living/Nursing Home	1%
Other	1%

Percent of COVID-19 Hospitalizations by Length of Stay

Days

Days	Percent
1	2%
2	5%
3	9%
4	10%
5	10%
6	10%
7	8%
8-10	15%
11-15	14%
16-20	7%
21-30	6%
31+	4%

1-7 days: **54%**

Note: Percentages may not add to 100% because of rounding.

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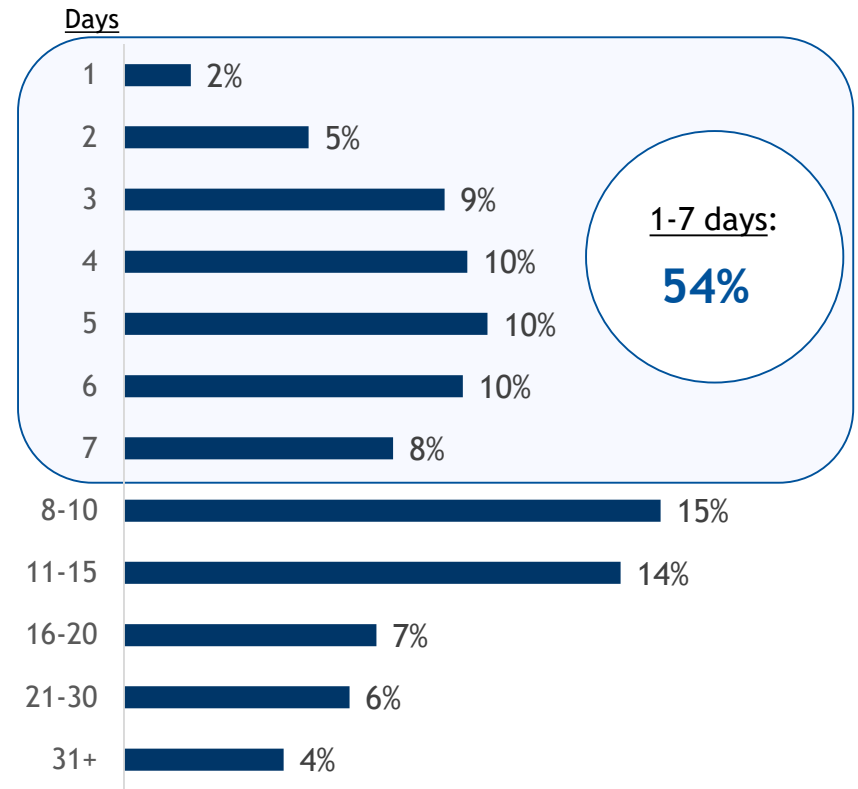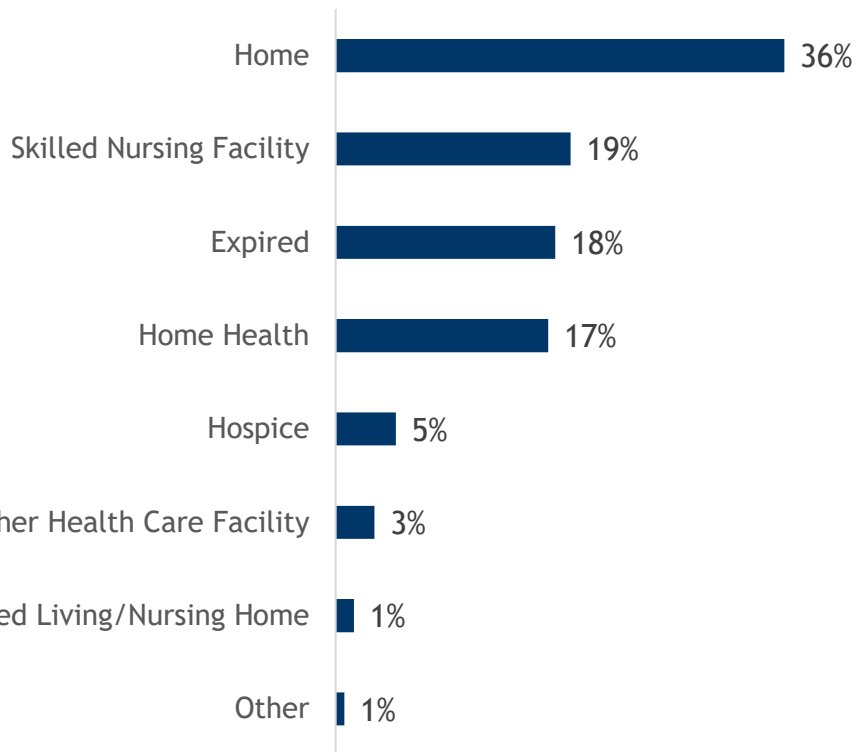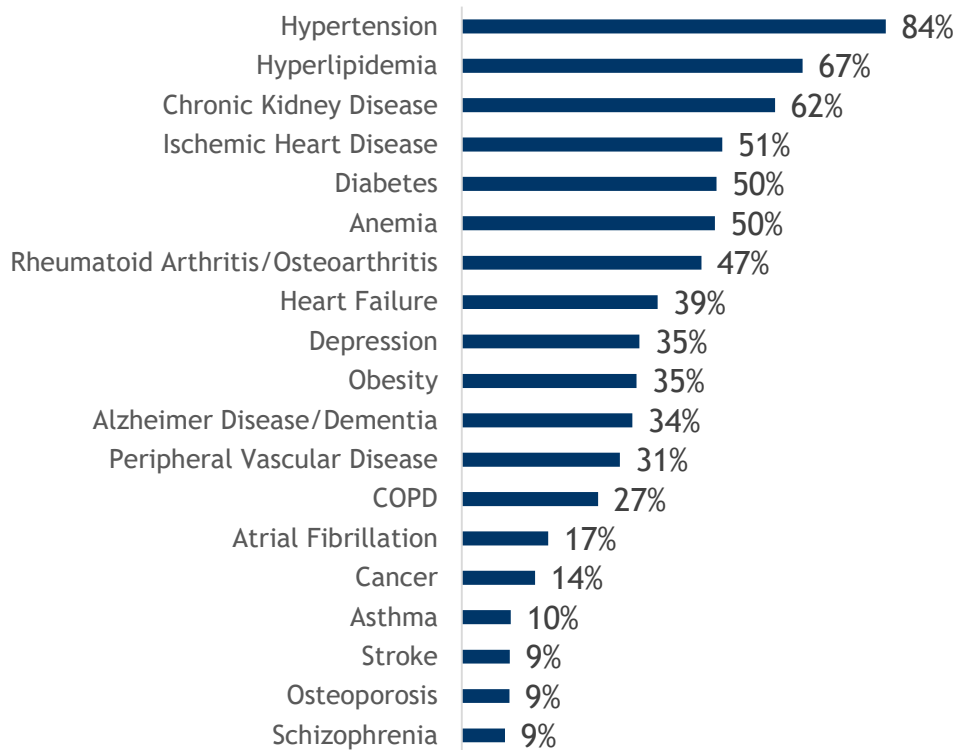*Medicare Claims and Encounter Data: January 1, 2020 to March 20, 2021, Received by April 16, 2021*
COVID-19 Hospitalizations

691,077 Total <u>Fee-for-Service</u> COVID-19 Hospitalizations

Chronic Condition Prevalence Among Fee-for-Service COVID-19 Hospitalized Beneficiaries

Condition	Prevalence
Hypertension	84%
Hyperlipidemia	67%
Chronic Kidney Disease	62%
Ischemic Heart Disease	51%
Diabetes	50%
Anemia	50%
Rheumatoid Arthritis/Osteoarthritis	47%
Heart Failure	39%
Depression	35%
Obesity	35%
Alzheimer Disease/Dementia	34%
Peripheral Vascular Disease	31%
COPD	27%
Atrial Fibrillation	17%
Cancer	14%
Asthma	10%
Stroke	9%
Osteoporosis	9%
Schizophrenia	9%

Medicare Payments for Fee-for-Service COVID-19 Hospitalizations

$16.6B
Total Medicare payment for fee-for-service COVID-19 hospitalizations

$24,033
$4,410 (5th percentile) - **$66,503** (95th percentile)

Average Medicare payment per fee-for-service COVID-19 hospitalized beneficiary

<u>Disclaimer</u>: All data presented in this update are preliminary and will continue to change as CMS processes additional claims and encounters for the reporting period. COVID-19 hospitalizations are identified using the following ICD-10 diagnosis codes: B97.29 (from 1/1-3/31/2020) and U07.1 (4/1/2020 and after). Medicare claims and encounter data are collected for payment and other program purposes, not public health surveillance, so caution must be used when interpreting the data. For additional details on data limitations, please see page 2 of this data update and view the methodology document available <u>here</u>.