

Medicare COVID-19 Hospitalization Trends Report

Medicare Claims and Encounter Data: January 1, 2020 to December 31, 2021, Received by April 29, 2022

Medicare COVID-19 Hospitalization Trends Overview

Our Medicare COVID-19 Hospitalization Trends Report data is about people with Medicare who are hospitalized with a COVID-19 diagnosis. The data sources for the Report are Medicare Fee-for-Service (FFS) claims data, Medicare Advantage (MA) encounter data, and Medicare enrollment information. The data supplement the COVID-19 hospitalization data found in the [Preliminary Medicare COVID-19 Data Snapshot](#).

Medicare COVID-19 Hospitalizations

Medicare COVID-19 Hospitalization: A count of stays with a diagnosis of COVID-19 on a claim or encounter record for an inpatient hospital setting.

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 hospitalizations 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).

All data are presented by month. The data included in this presentation, as well as additional levels of detail, are available in the [data file](#).

Please see the [methodology document](#) for more details.

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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*).

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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.

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Summary of COVID-19 Hospitalizations and Hospitalized Enrollees

Year	COVID-19 Hospitalizations	Unique Enrollees with a COVID-19 Hospitalization	Annual Rate Hospitalizations per 100K
2020	983,879	921,895	1,574
2021	1,098,471	1,035,007	1,729
Total	2,082,350	1,842,050	-

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

Year	Total Fee-for-Service COVID-19 Hospitalizations	Total Medicare payment for Fee-for-Service COVID-19 hospitalizations	Average Medicare payment per Fee-for-Service COVID-19 hospitalization	5 th percentile	95 th percentile
2020	593,419	\$12.9B	\$21,703	\$3,528	\$60,364
2021	613,450	\$13.4B	\$21,773	\$1,183	\$60,383
Total	1,206,869	\$26.2B	\$21,739	\$2,232	\$60,374

Note: This chart only includes fee-for-service COVID-19 hospitalizations. Spending data are not available for encounter claims.

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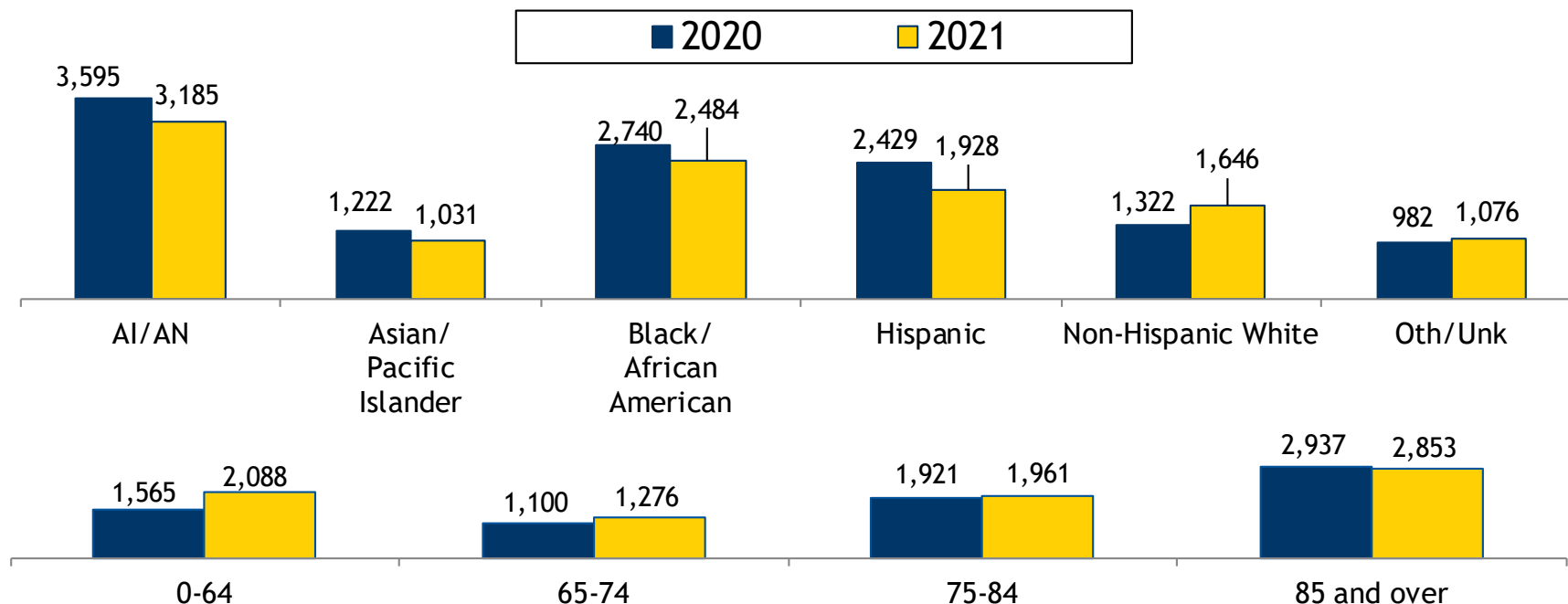
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Medicare Claims and Encounter Data: January 1, 2020 to December 31, 2021, Received by April 29, 2022

1,574 COVID-19 Hospitalizations per 100K in 2020

1,729 COVID-19 Hospitalizations per 100K in 2021

COVID-19 Hospitalizations per 100K by Enrollee Characteristics



Note: AI/AN = American Indian/Alaska Native

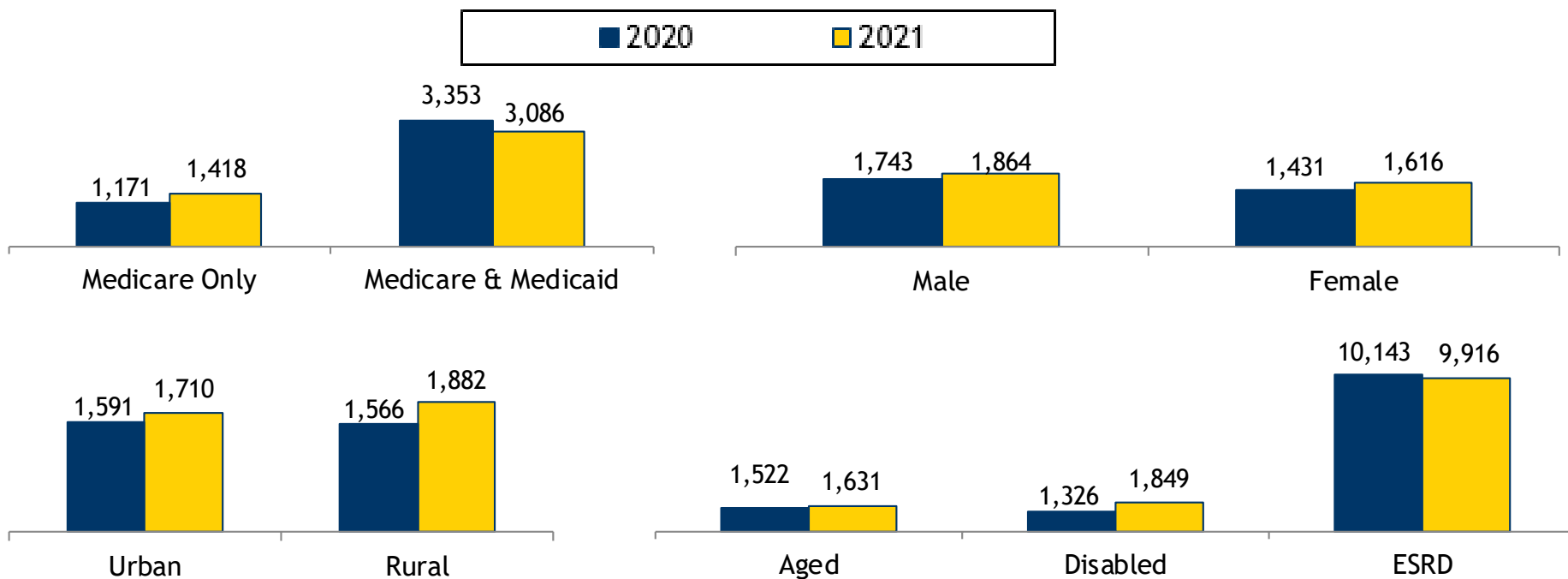
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COVID-19 Hospitalizations per 100K by Enrollee Characteristics



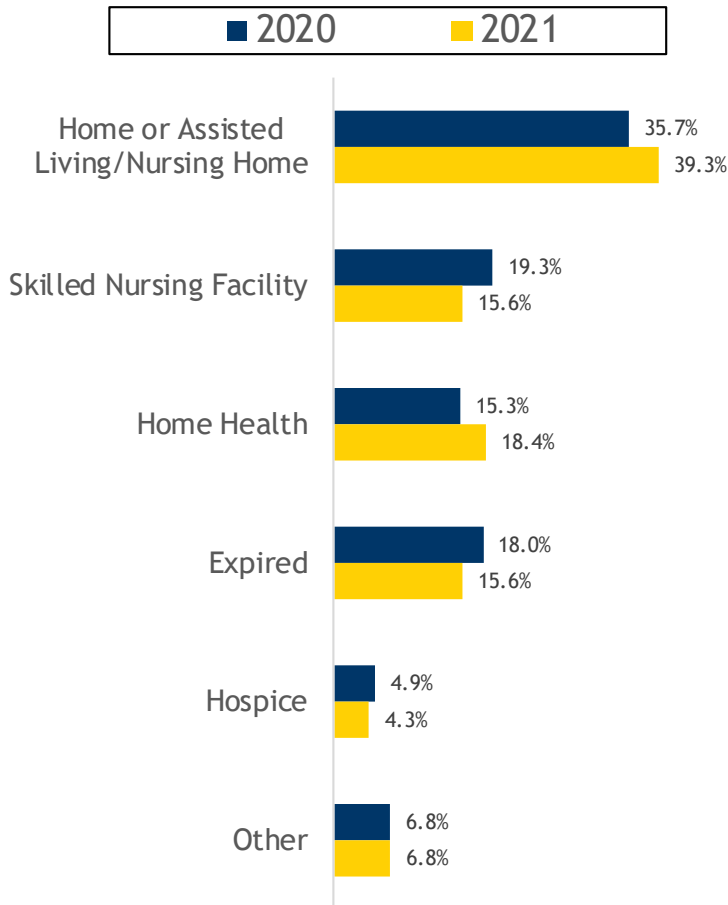
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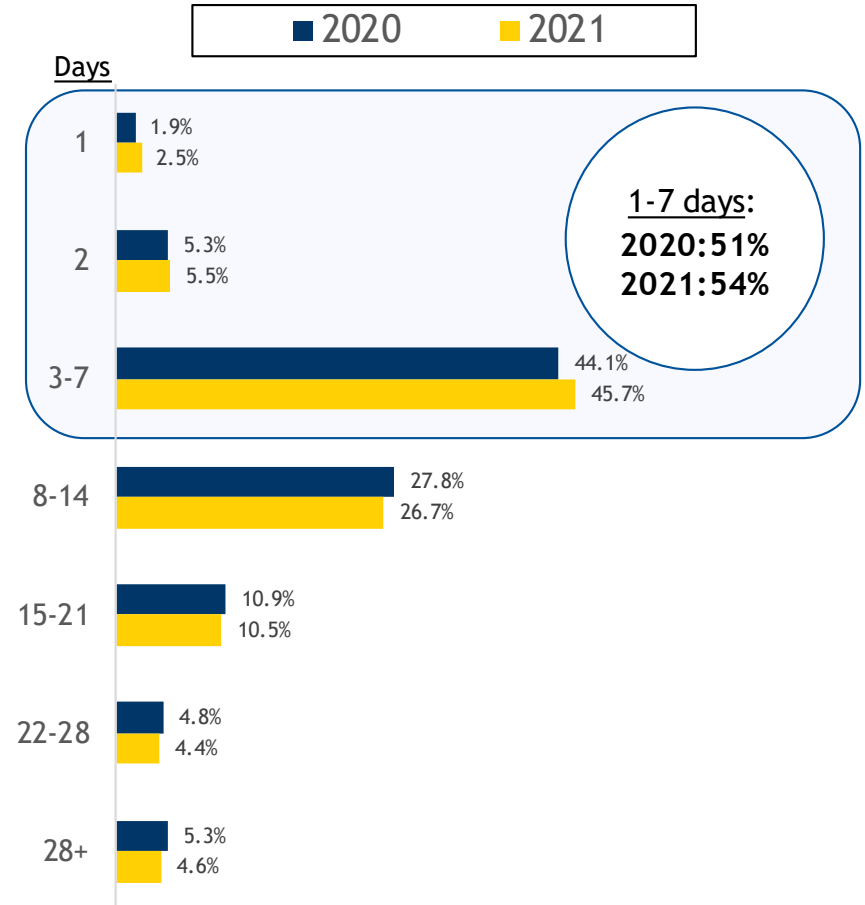
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Percent of COVID-19 Hospitalizations by Discharge Status



Percent of COVID-19 Hospitalizations by Length of Stay



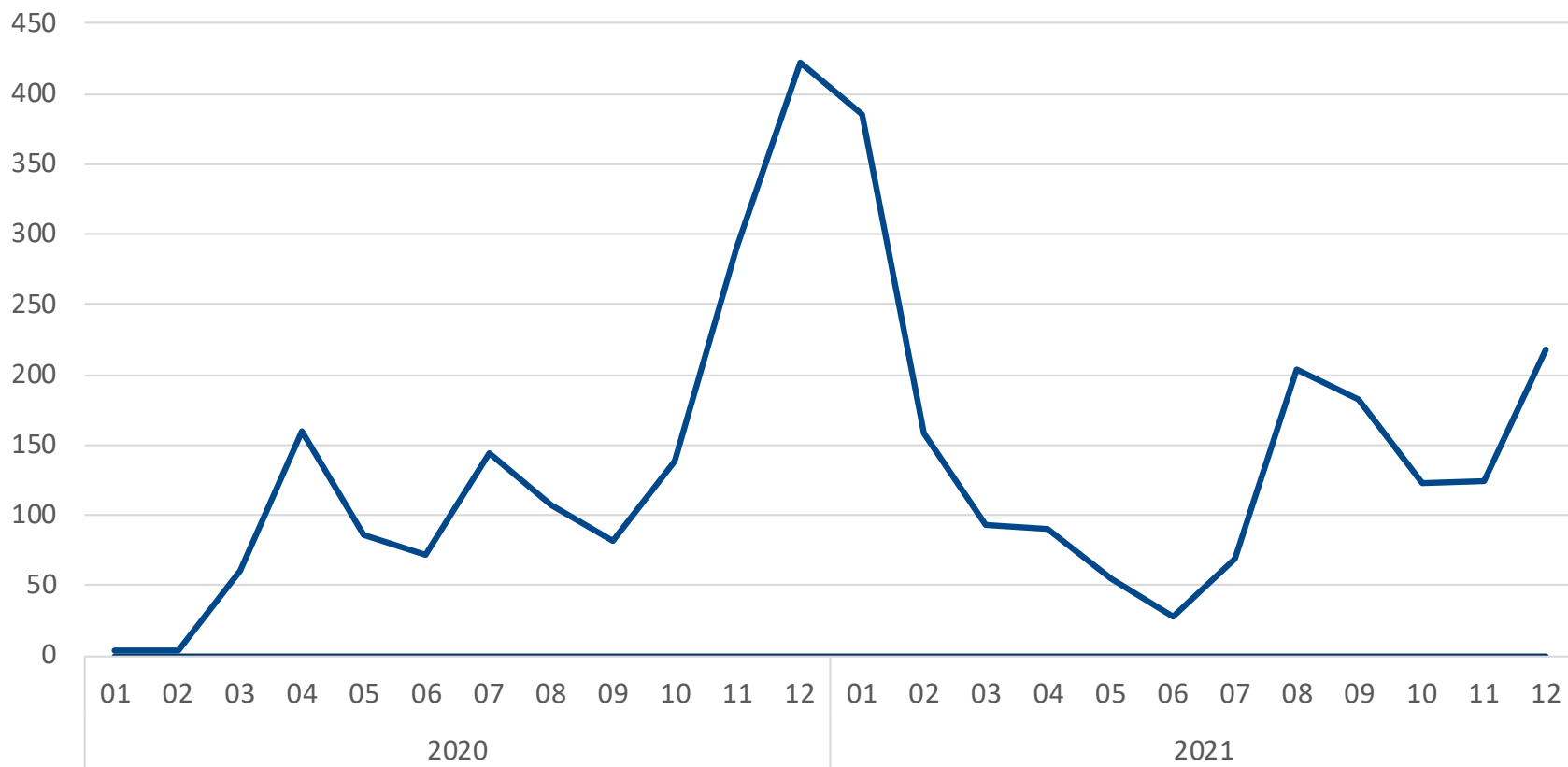
Note: Percentages may not add to 100% because of rounding.

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Monthly COVID-19 Hospitalization Rate per 100K: Overall

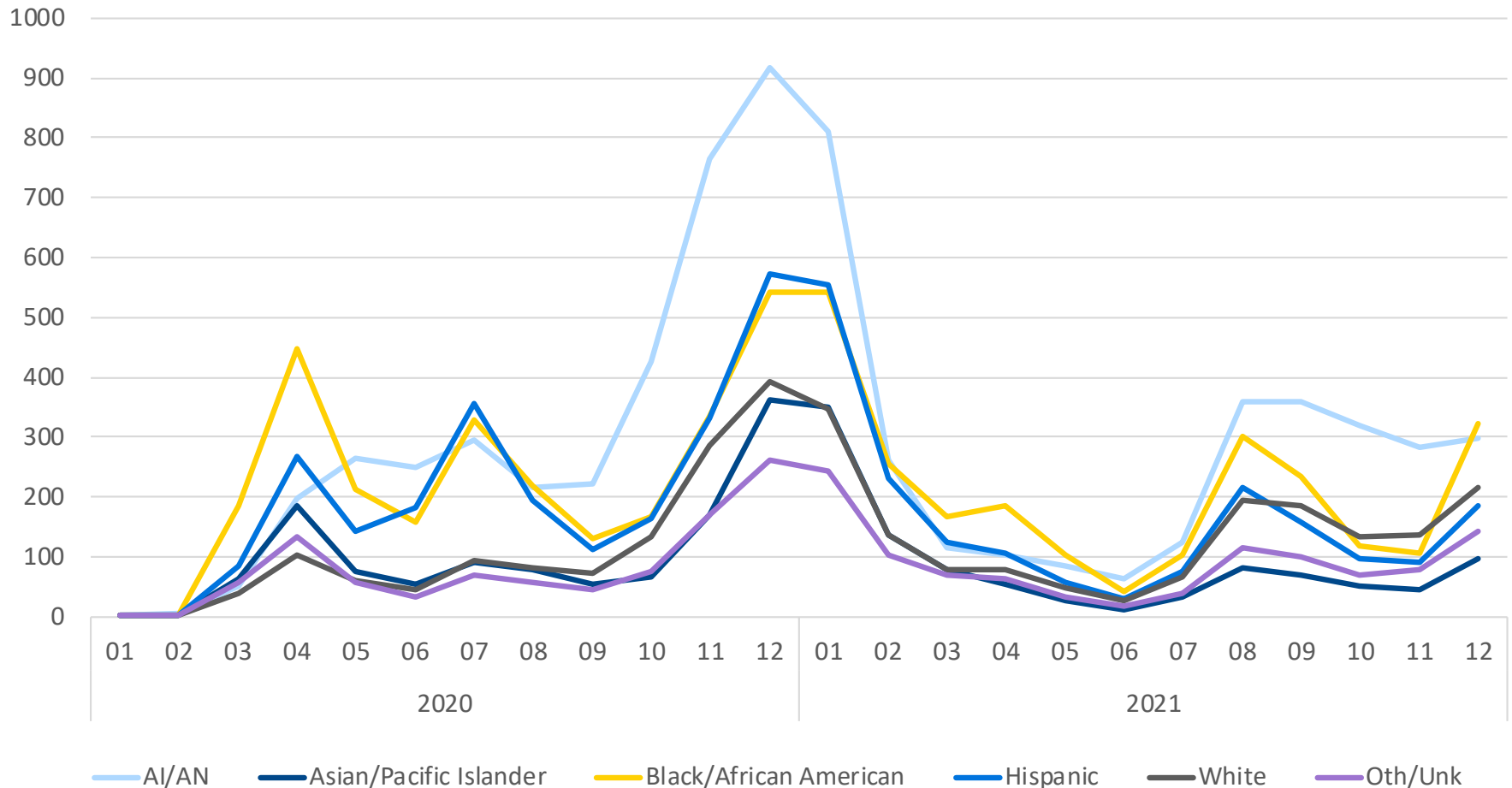


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Monthly COVID-19 Hospitalization Rate per 100K: By Race/Ethnicity

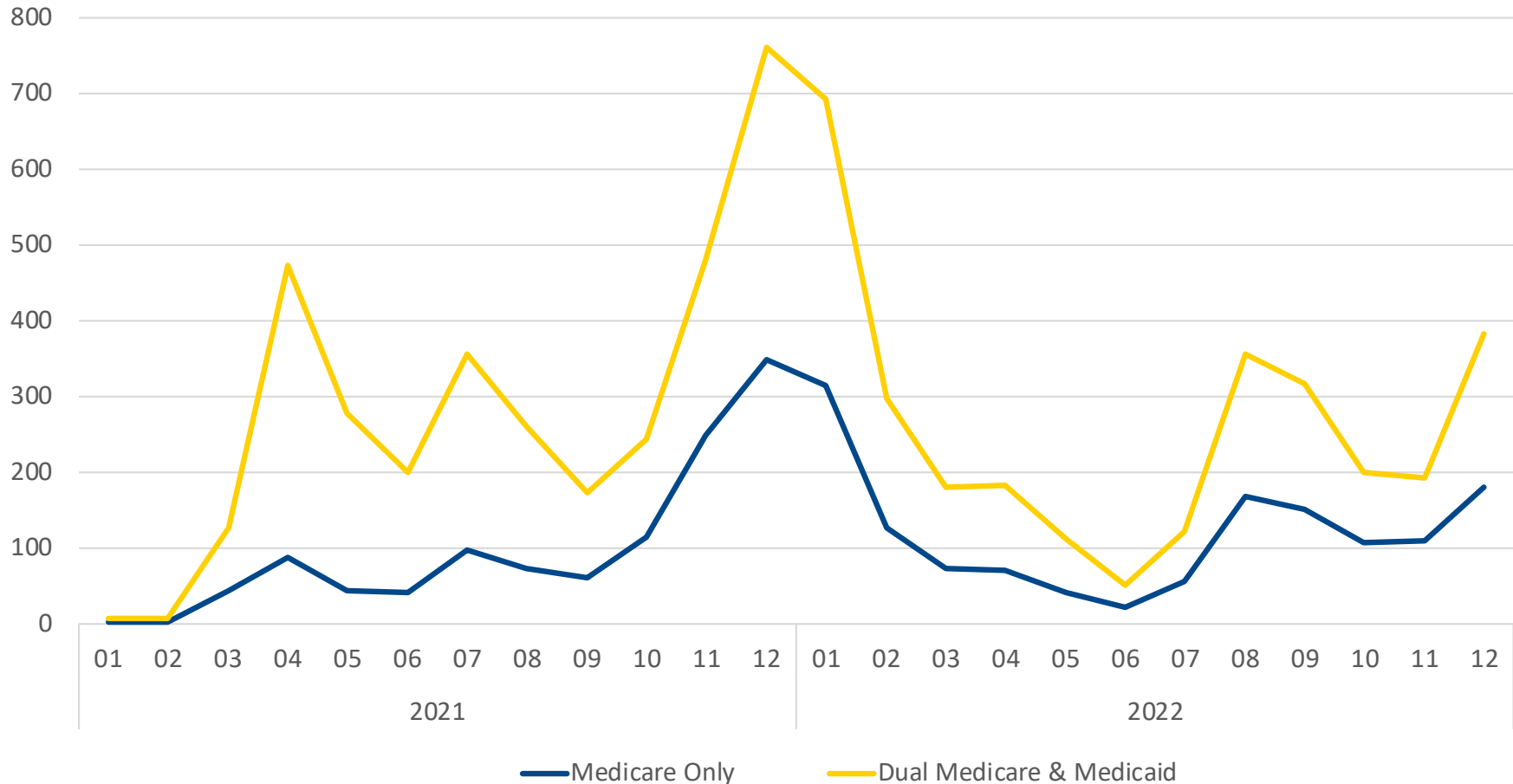


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Monthly COVID-19 Hospitalization Rate per 100K: By Medicaid Eligibility

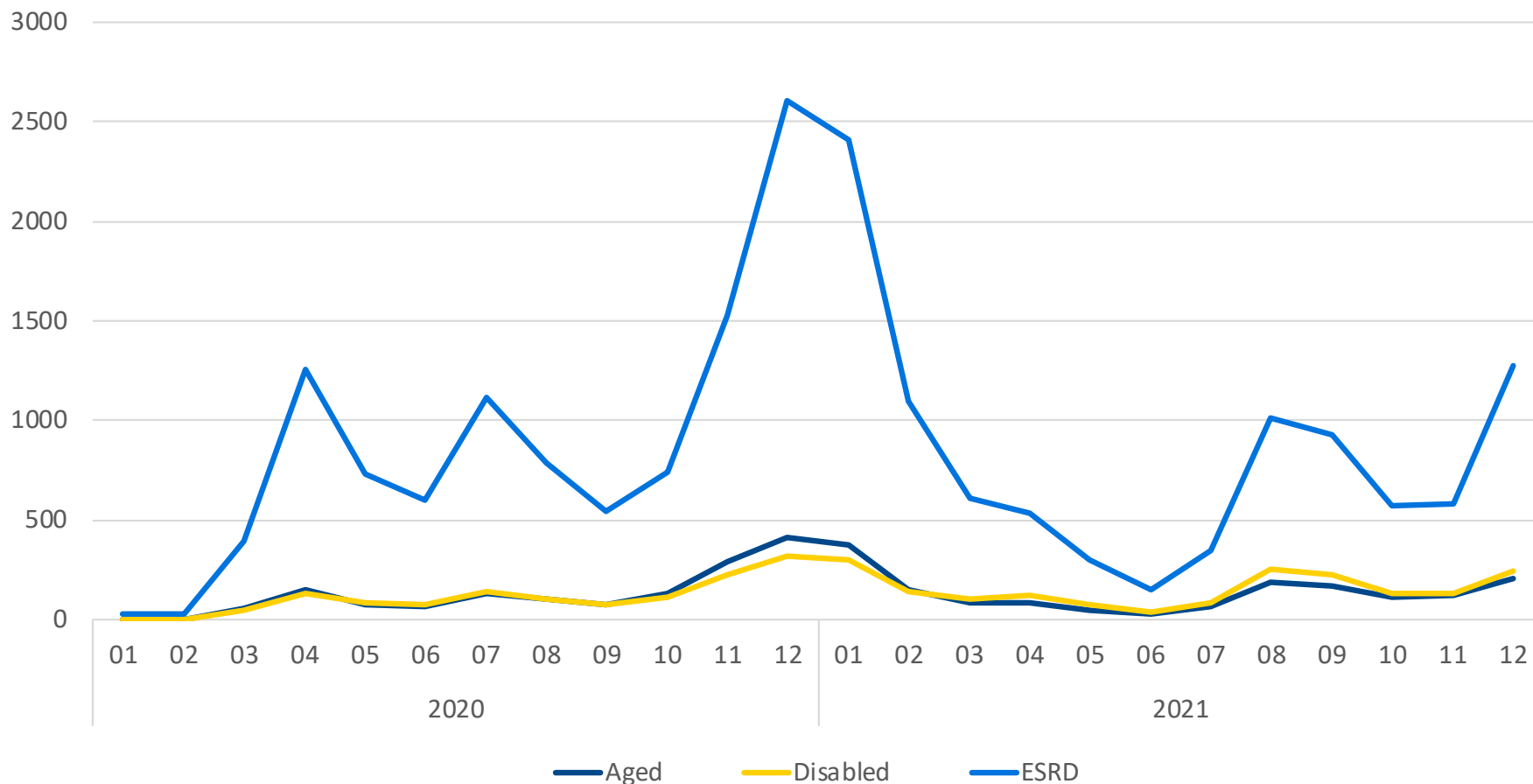


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Monthly COVID-19 Hospitalization Rate per 100K: By Medicare Entitlement

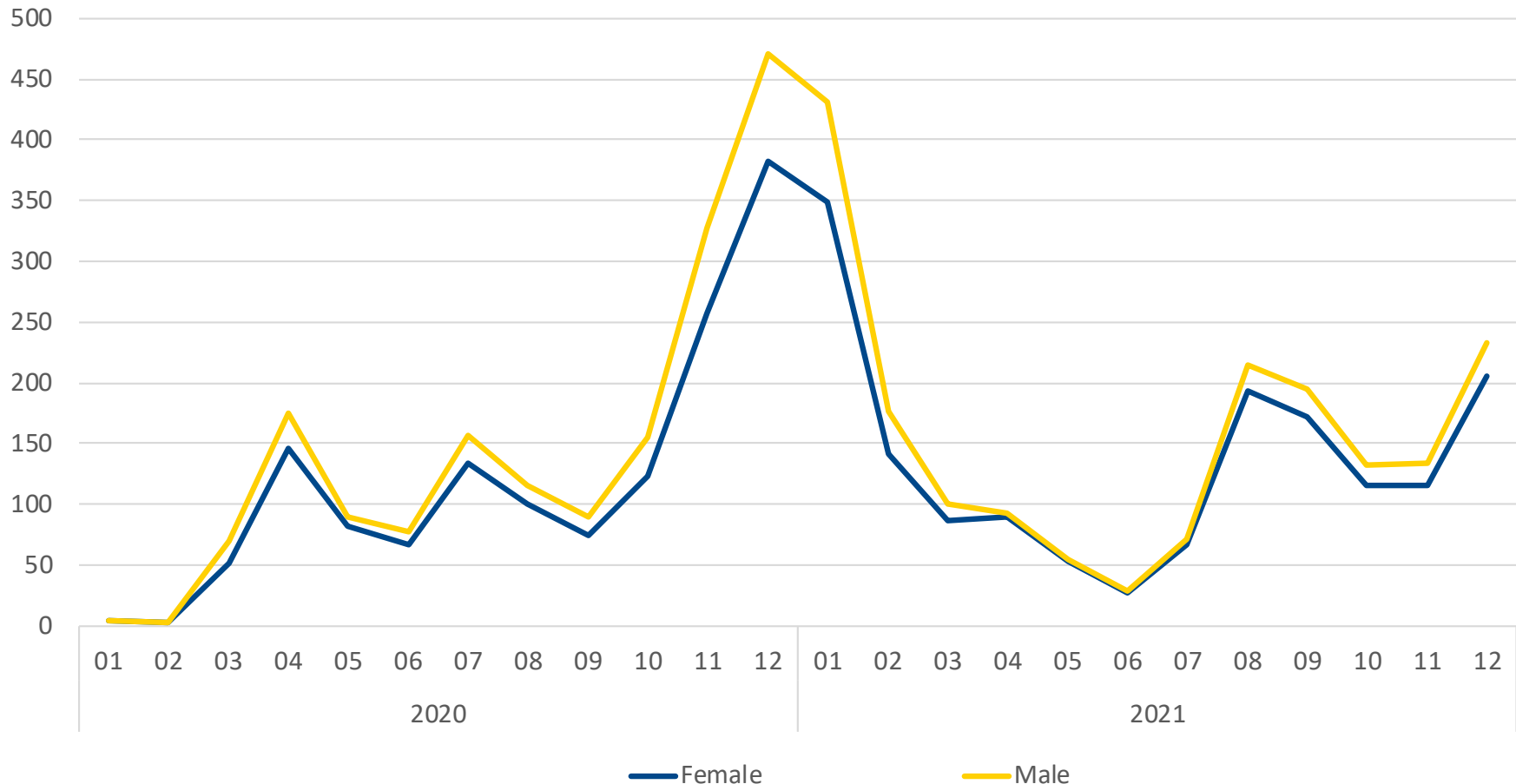


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Monthly COVID-19 Hospitalization Rate per 100K: By Sex

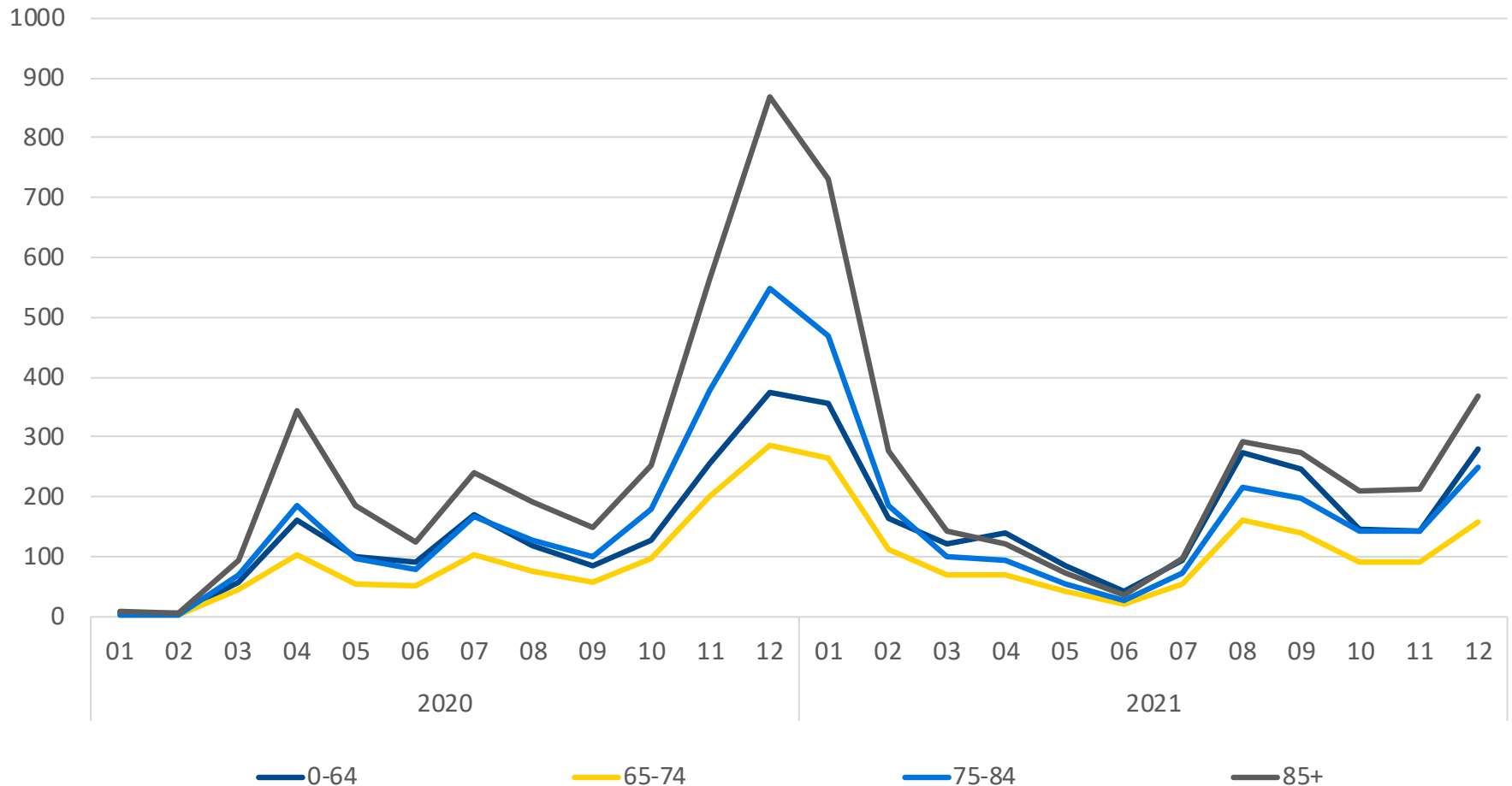


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Monthly COVID-19 Hospitalization Rate per 100K: By Age Group

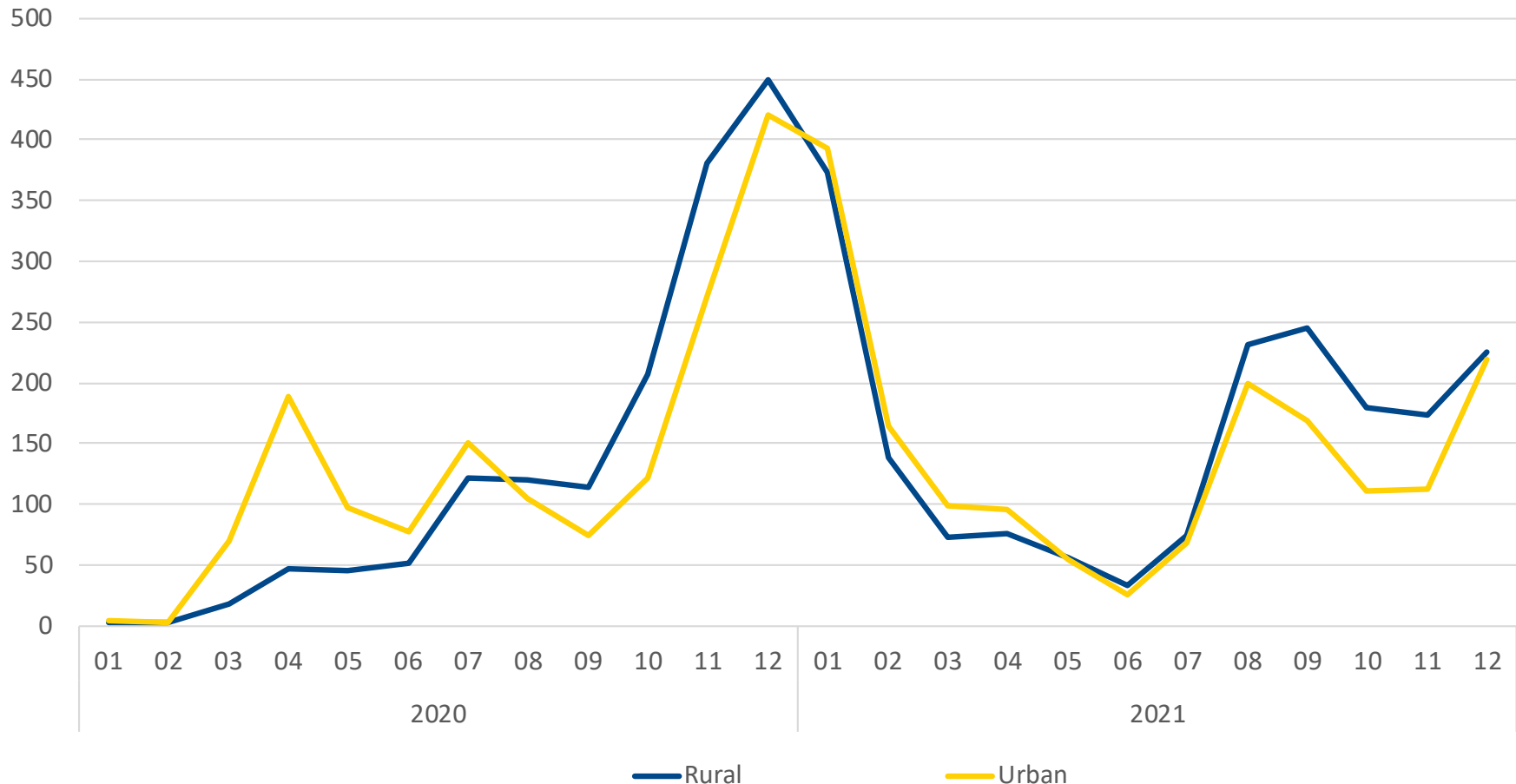


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Monthly COVID-19 Hospitalization Rate per 100K: By Rural/Urban

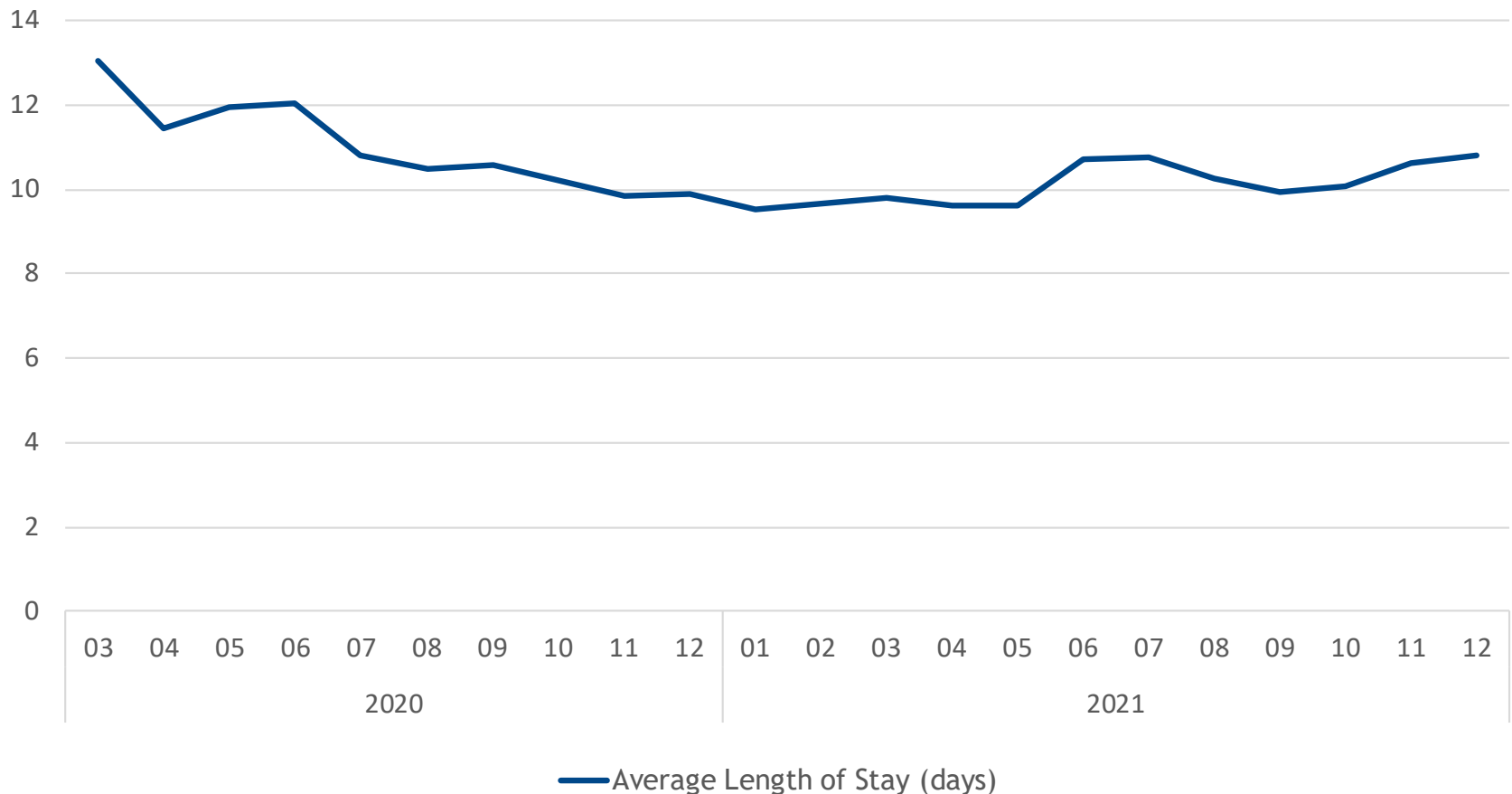


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Monthly Average Length of Stay for COVID-19 Hospitalizations



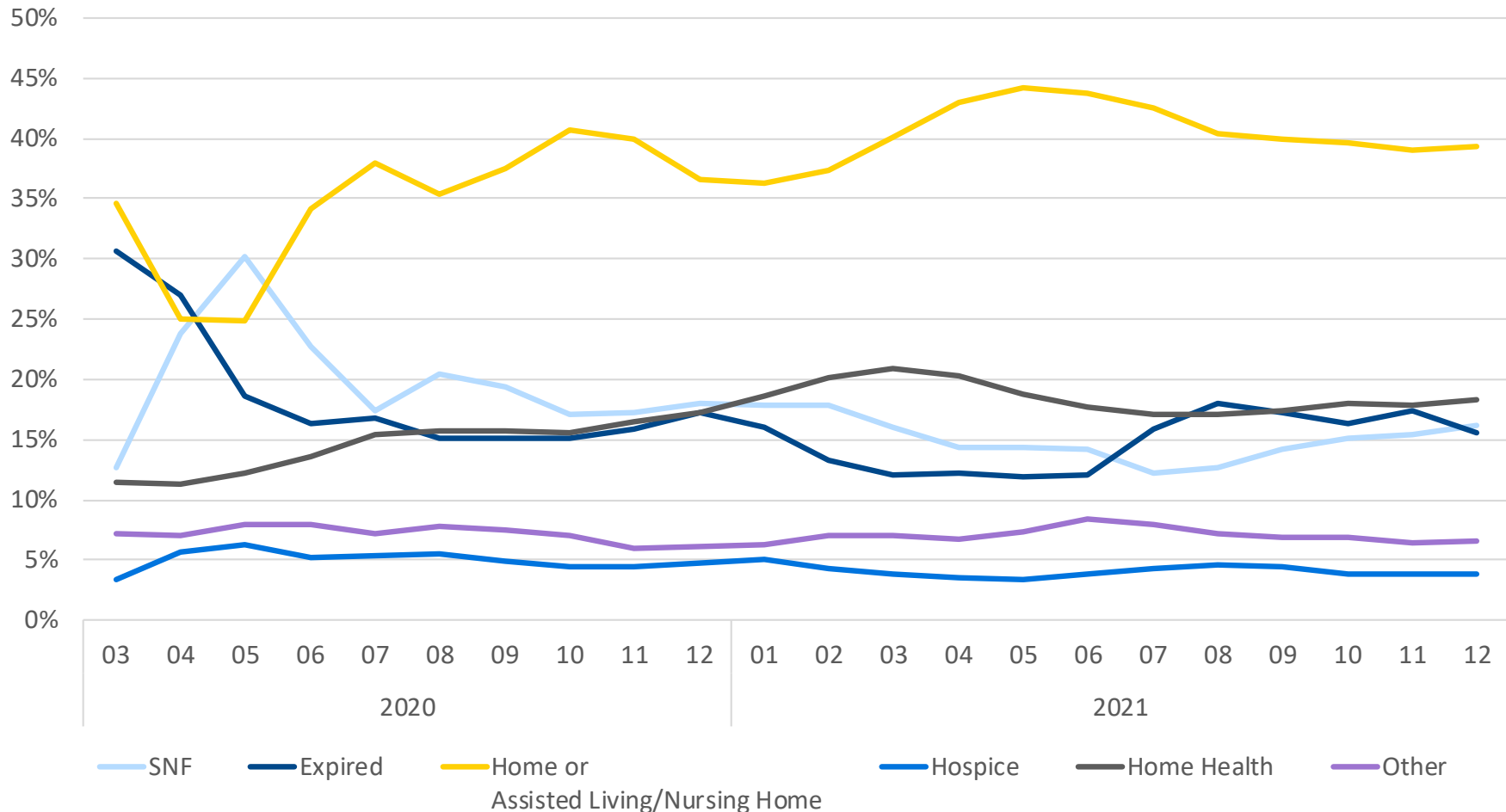
Note: We did not display January and February 2020 due to the low number of COVID-19 hospitalizations during those months.

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Proportion of Monthly COVID-19 Hospitalizations by Discharge Status



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Medicare COVID-19 Hospitalization Trends Data File

A Medicare COVID-19 Hospitalization Trends data file is available at the following link:

<https://data.cms.gov/covid-19/medicare-covid-19-hospitalization-trends>

The data file includes all data points from the preceding charts. The data file also includes additional levels of detail, presenting COVID-19 Hospitalizations by:

- Year/Month and State
- Year/Month, State and Medicaid Eligibility Status
- Year/Month, State and Race/Ethnicity
- Year/Month, State and Medicare Status
- Year/Month, State and Beneficiary Sex
- Year/Month, State and Age Group
- Year/Month, State and Rural/Urban Status
- Year/Month, Medicaid Eligibility Status and Race/Ethnicity
- Year/Month, Medicaid Eligibility Status and Medicare Status
- Year/Month, Medicaid Eligibility Status and Beneficiary Sex
- Year/Month, Medicaid Eligibility Status and Age Group
- Year/Month, Medicaid Eligibility Status and Rural/Urban Status
- Year/Month, Race/Ethnicity and Medicare Status
- Year/Month, Race/Ethnicity and Beneficiary Sex
- Year/Month, Race/Ethnicity and Age Group
- Year/Month, Race/Ethnicity and Rural/Urban Status

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