

COVID-19 Excess Deaths in Medicare

For External Release

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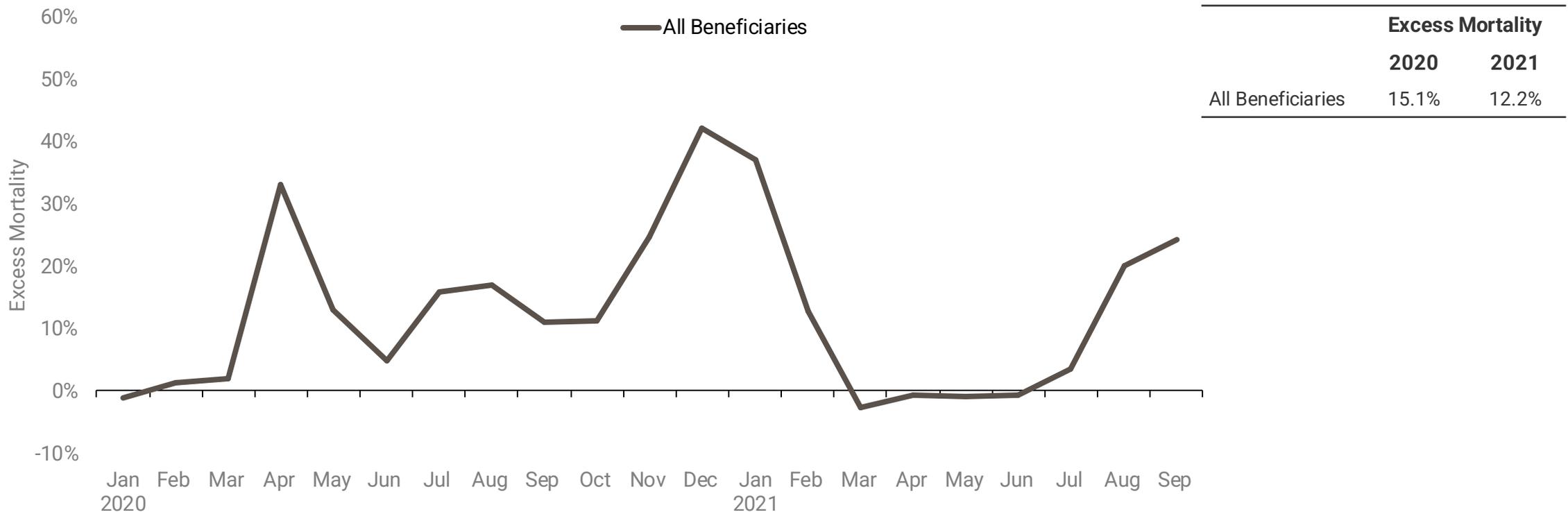
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NORC analyzed Medicare data on mortality and chronic conditions to track the impact of COVID-19

- We confirmed what was previously well understood: In the initial months of COVID-19, there was a spike in deaths among obese people and those needing routine caregiving.
- We also found nuances in the data that are not well known to the public: Older people with obesity, Alzheimer's disease, and mental health conditions were more likely to die than those with respiratory diseases or cancer.

Excess mortality across all Medicare beneficiaries was 15% in 2020, peaking during the COVID-19 Delta wave



Source: NORC Analysis of Medicare Claims, Chronic Conditions, and Enrollment Data.

Medicare beneficiaries who died of COVID-19 in 2020 had more chronic conditions

COVID-19 Deaths

16.0

Average number of chronic conditions for beneficiaries who died of COVID-19 in 2020

All Cause Deaths

12.2

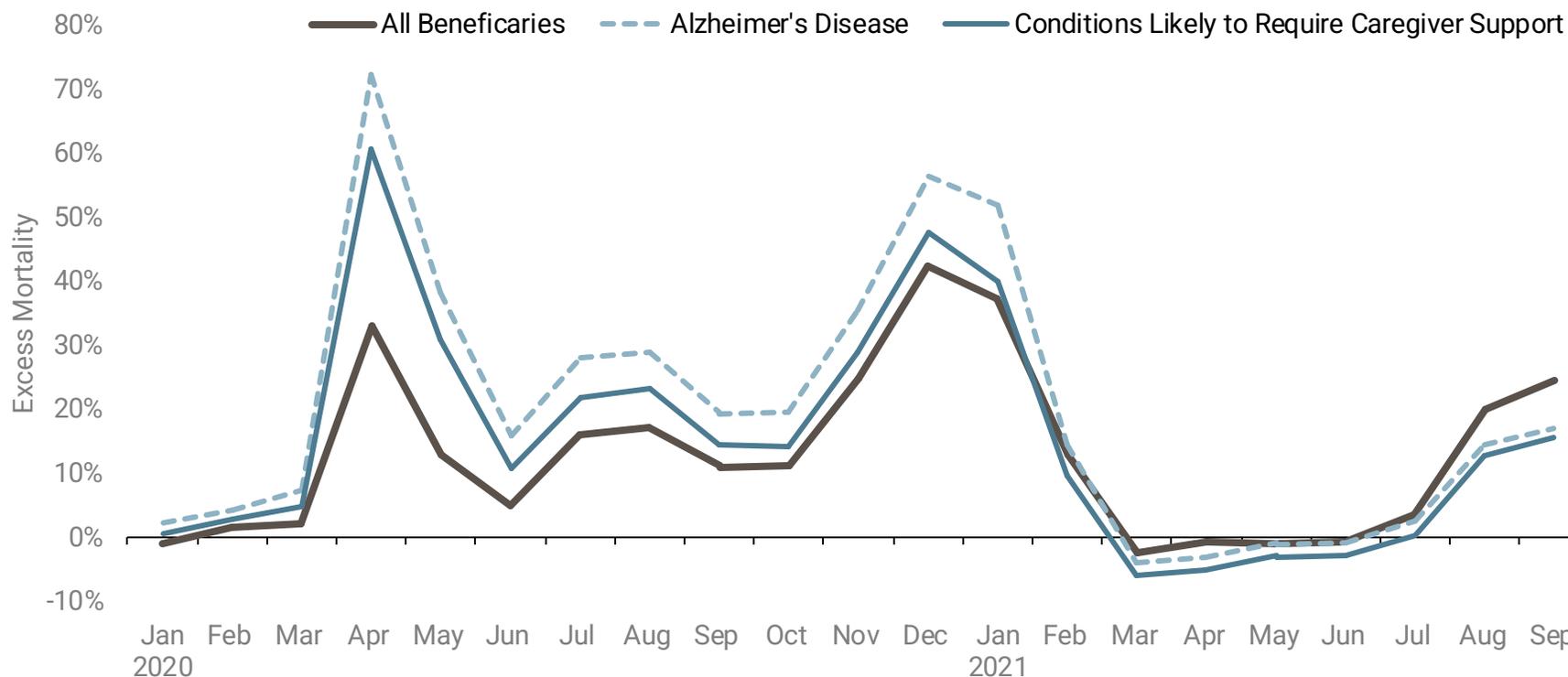
Average number of chronic conditions for beneficiaries who died from all causes in 2020

All Beneficiaries

6.6

Average number of chronic conditions among all Medicare beneficiaries

Those with conditions likely to require a caregiver had 21.5% excess mortality in 2020; mortality fell in 2021 once vaccines arrived

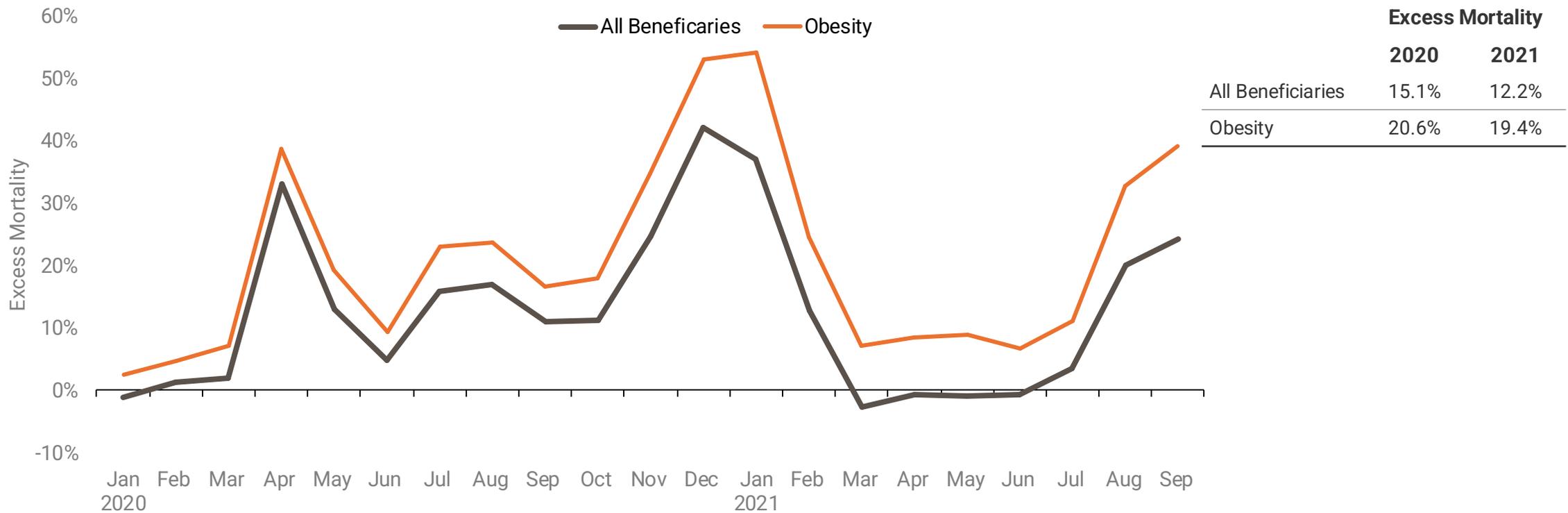


	Excess Mortality	
	2020	2021
All Beneficiaries	15.1%	12.2%
Alzheimer's Disease	24.4%	8.3%
Likely Require a Caregiver	21.5%	7.0%

Diseases likely to require caregiver support include Alzheimer's disease, dementia, schizophrenia, psychotic disorders, bipolar disorder, autism, post-traumatic stress disorder, intellectual disabilities, developmental delays, and learning disabilities as mental, developmental or degenerative conditions.

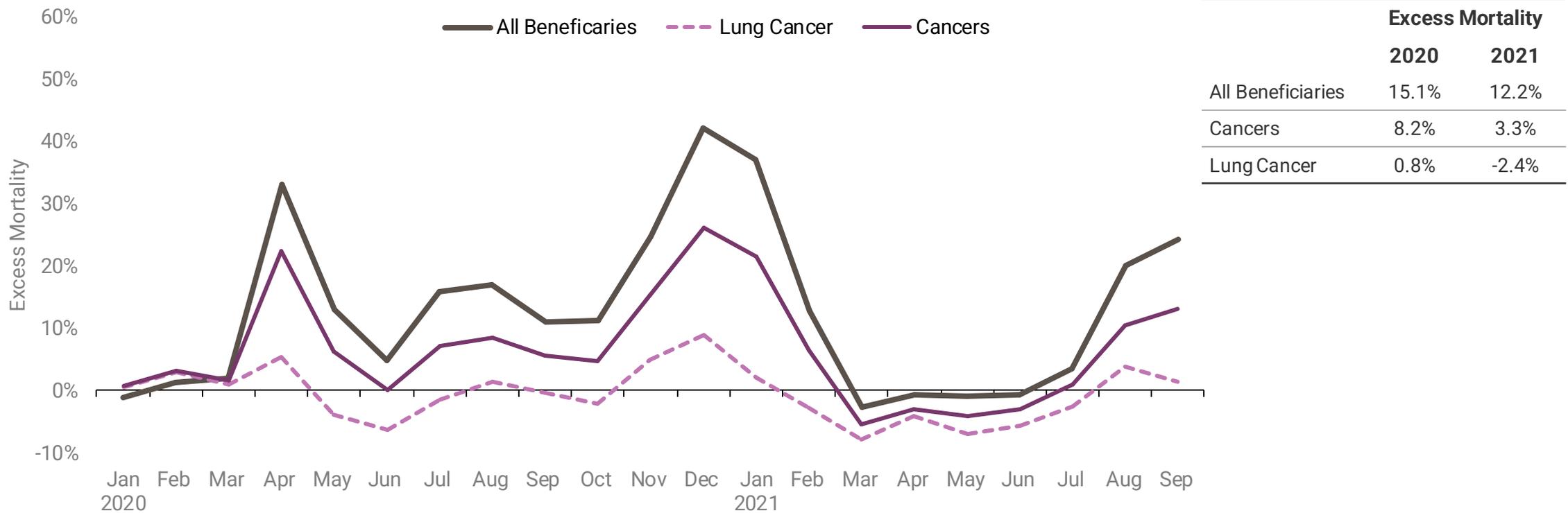
Source: NORC Analysis of Medicare Claims, Chronic Conditions, and Enrollment Data.

Excess mortality across all Medicare beneficiaries reached 42% at the peak of the COVID-19 Delta wave



Source: NORC Analysis of Medicare Claims, Chronic Conditions, and Enrollment Data.

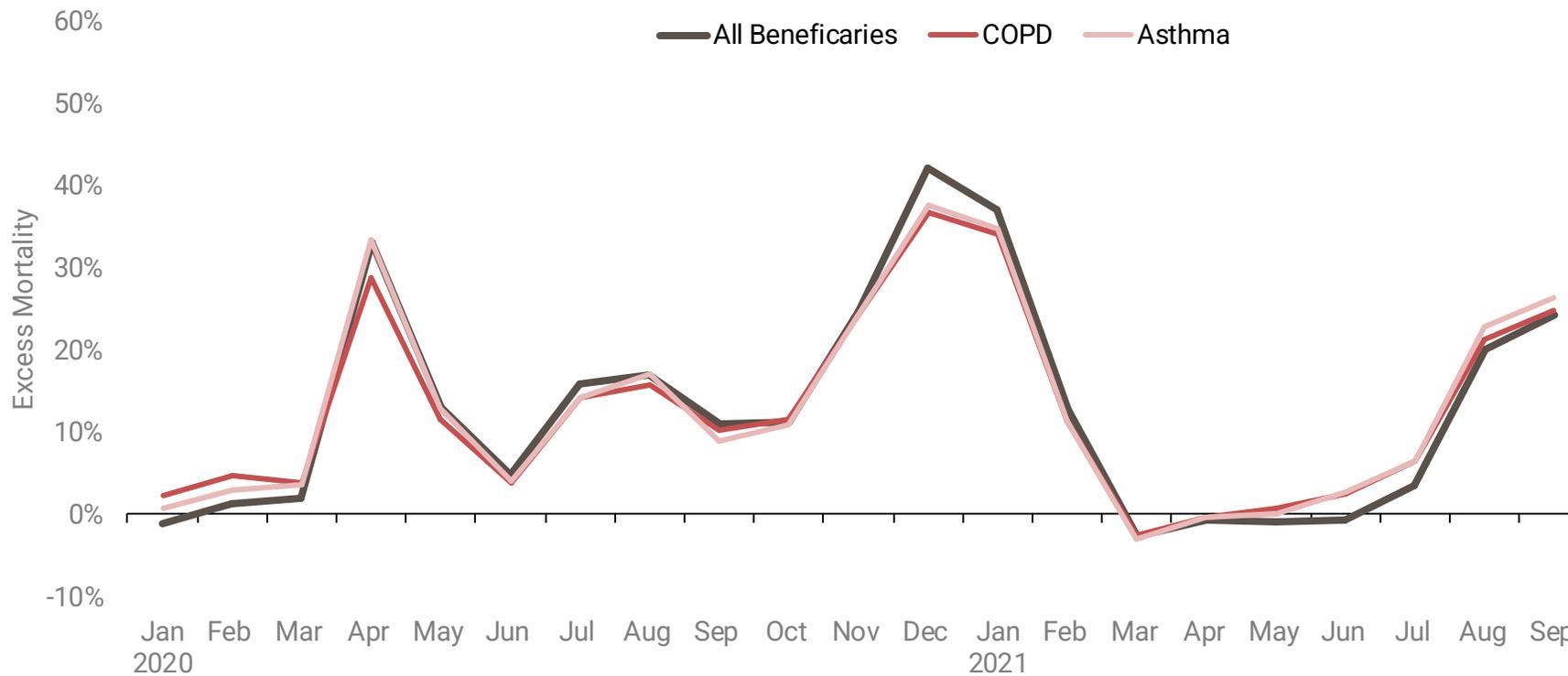
Excess death among people with cancer was much lower (8.2%) than other beneficiaries (15.1%) in 2020, likely due to extra precautions



Cancers includes breast, colorectal, endometrial, leukemia and lymphoma, lung, and prostate.

Source: NORC Analysis of Medicare Claims, Chronic Conditions, and Enrollment Data.

Excess mortality for people with pulmonary diseases (asthma, COPD) tracked closely to other beneficiaries



	Excess Mortality	
	2020	2021
All Beneficiaries	15.1%	12.2%
COPD	13.4%	10.1%
Asthma	13.9%	10.3%

Source: NORC Analysis of Medicare Claims, Chronic Conditions, and Enrollment Data.

TABLE 4: ANNUAL MEDICARE MORTALITY & EXCESS MORTALITY BY CONDITION

Chronic Condition	Annual Mortality (2019)	Annual Mortality (2020)	Annual Excess Mortality (2020)	Annual Mortality (2021)	Annualized Excess Mortality (2021)
All Medicare Beneficiaries	3.8%	4.4%	15.1%	4.3%	12.2%
Lung Cancer	21.7%	21.9%	0.8%	21.2%	-2.4%
Alzheimer's Disease	19.6%	24.4%	24.4%	21.2%	8.3%
Alzheimer's Disease and Dementia	16.4%	19.6%	19.5%	17.8%	8.3%
Colorectal Cancer	10.8%	11.8%	9.4%	11.4%	5.7%
Leukemias and Lymphomas	10.6%	11.3%	7.2%	11.1%	5.3%
Schizophrenia and Other Psychotic Disorders	9.6%	11.7%	21.3%	9.8%	1.5%
Chronic Obstructive Pulmonary	9.0%	10.2%	13.4%	9.9%	10.1%
Endometrial Cancer	7.7%	8.5%	9.6%	8.1%	4.6%
Prostate Cancer	7.0%	7.9%	13.5%	7.5%	7.1%
Diabetes	6.3%	7.5%	19.5%	7.2%	15.4%
Breast Cancer	6.0%	6.7%	10.4%	6.3%	4.3%
Bipolar Disorder	5.9%	7.3%	24.4%	6.6%	12.0%
Asthma	5.8%	6.6%	13.9%	6.4%	10.3%
Schizophrenia	5.1%	6.8%	32.5%	5.9%	15.8%
Obesity	4.5%	5.4%	20.6%	5.4%	19.4%
Intellectual Disabilities and Related Conditions	4.1%	5.2%	28.9%	4.7%	15.5%
Post-Traumatic Stress Disorder	3.4%	4.0%	18.4%	4.0%	18.9%
Autism	2.0%	2.5%	27.4%	2.4%	21.8%

Highlighted cells show the five conditions with the highest excess mortality in 2020 and 2021.

Methodology

Analysis of beneficiaries enrolled in Medicare Fee for Service during 2019, 2020, and/or 2021.

CCW Chronic Condition and Month of Death indicators were applied to identify diseases and timing of mortality.

Excess mortality is the percent difference between the observed pandemic mortality rate (2020 or 2021) relative to the pre-pandemic mortality rate (2019; expected mortality) for the same month and condition(s).

At the time this analysis was conducted, data through September 2021 was available with sufficient run-out. Annualized 2021 estimates are made with respect to the first nine months of the year.