

# Excess deaths SOA report, May 2023

Table 5.8

## EXCESS MORTALITY BY DETAILED AGE BAND

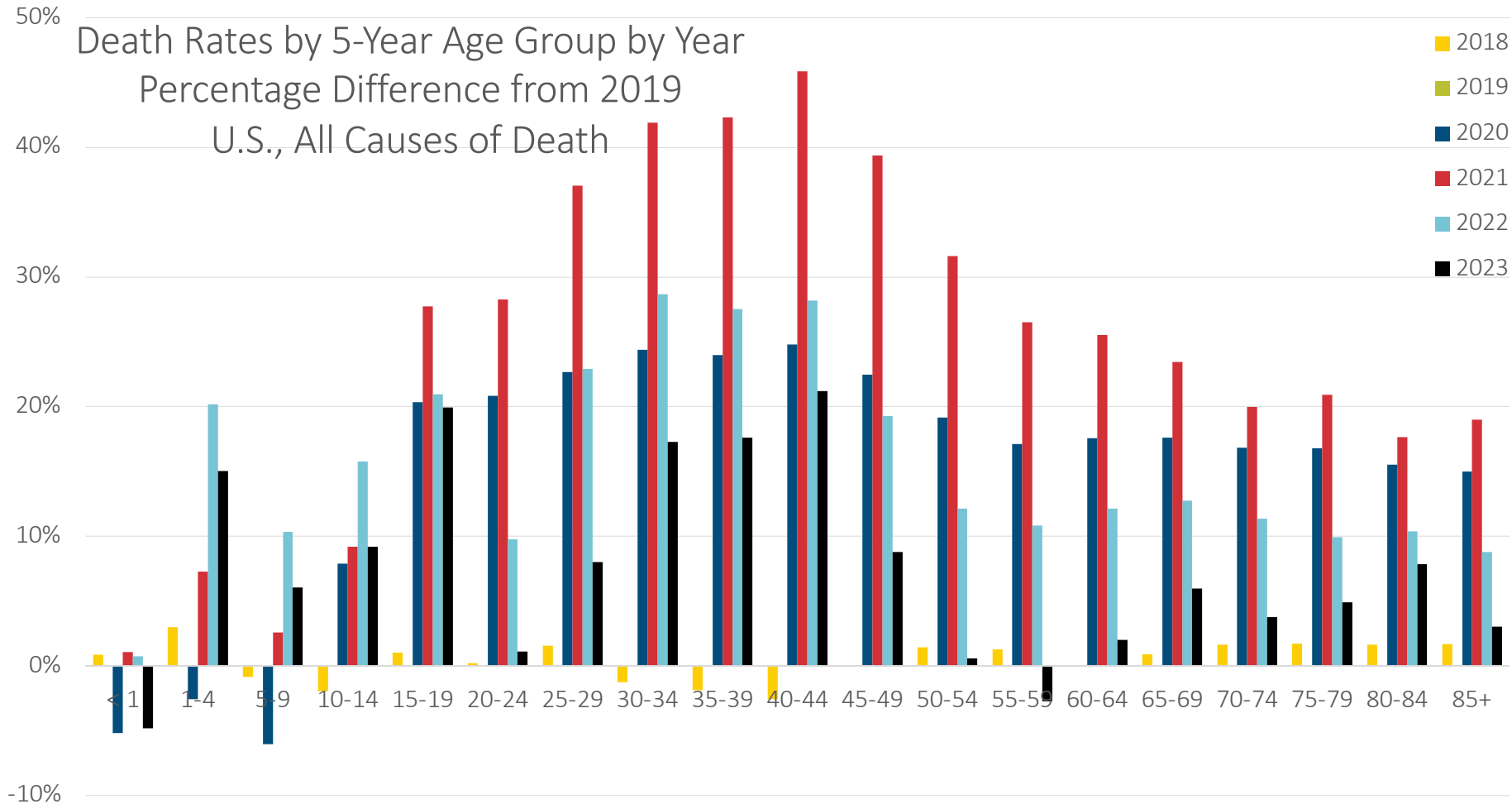
Age	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Apr. 2020 –Dec. 2022	COVID (%)	Non-COVID (%)	Count (%)
0-24	124%	104%	101%	119%	128%	112%	99%	104%	119%	108%	112%	2.8%	9.3%	2%
25-34	131%	120%	118%	132%	179%	137%	126%	121%	127%	123%	131%	9.9%	21.1%	2%
35-44	133%	127%	129%	134%	201%	158%	134%	123%	126%	134%	139%	17.2%	21.3%	4%
45-54	126%	129%	132%	119%	179%	151%	128%	107%	112%	123%	130%	19.9%	10.0%	9%
55-64	122%	129%	129%	114%	152%	139%	123%	100%	105%	116%	122%	17.4%	5.1%	18%
65-74	115%	132%	130%	108%	130%	124%	116%	95%	100%	104%	116%	14.0%	1.5%	17%
75-84	113%	133%	123%	105%	119%	122%	121%	102%	107%	107%	115%	11.3%	3.8%	20%
85+	103%	124%	111%	92%	105%	107%	105%	91%	93%	92%	103%	8.6%	-5.5%	27%
<b>All Ages<sup>a</sup></b>	<b>115%</b>	<b>128%</b>	<b>123%</b>	<b>107%</b>	<b>134%</b>	<b>126%</b>	<b>117%</b>	<b>99%</b>	<b>104%</b>	<b>107%</b>	<b>116%</b>	<b>13.0%</b>	<b>2.9%</b>	<b>100%</b>

a. Includes only companies that provided Age splits; see second bullet at the beginning of Section 5.

# Death Rates by 5-Year Age Group by Year

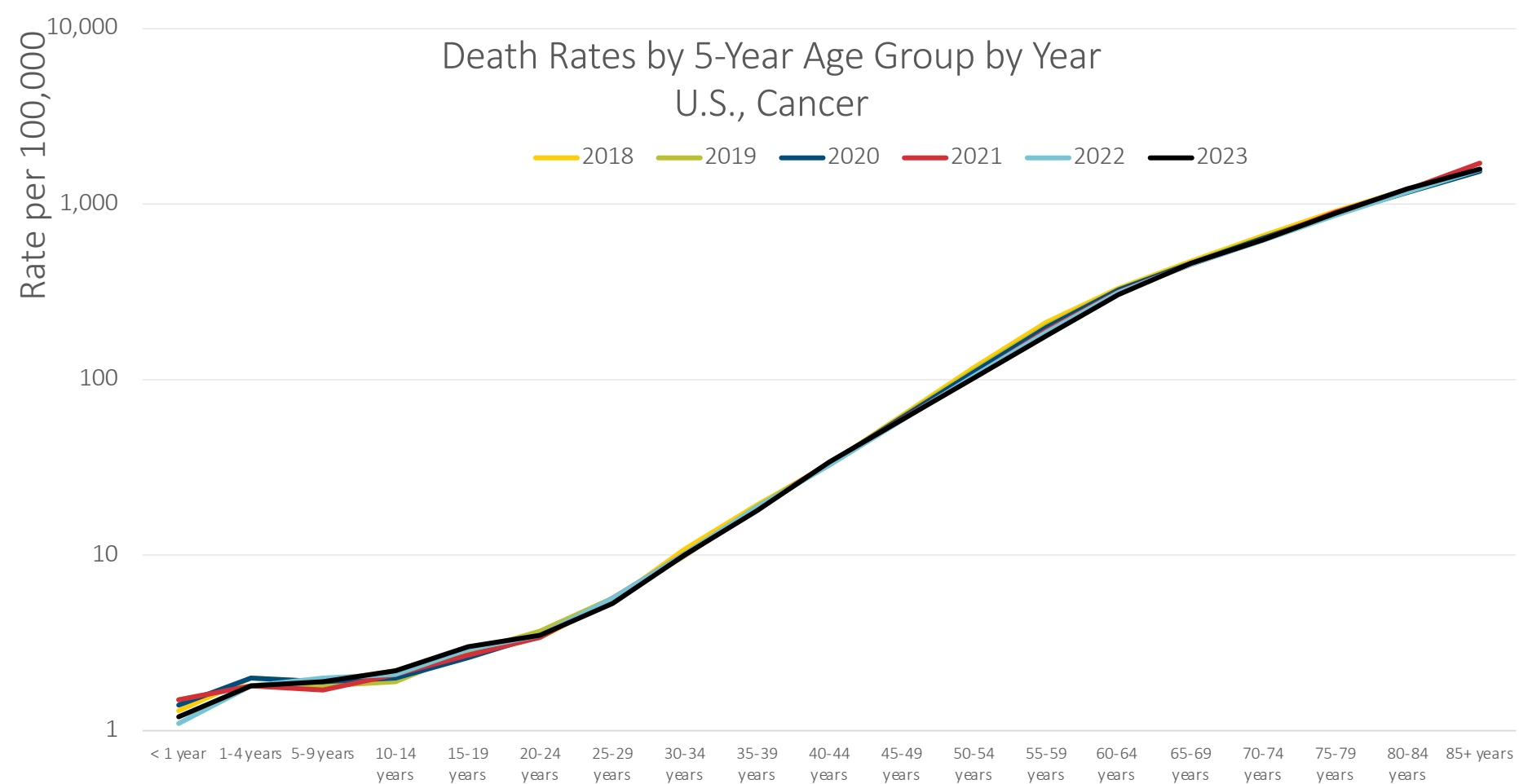
## Percentage Difference from 2019

### U.S., All Causes of Death



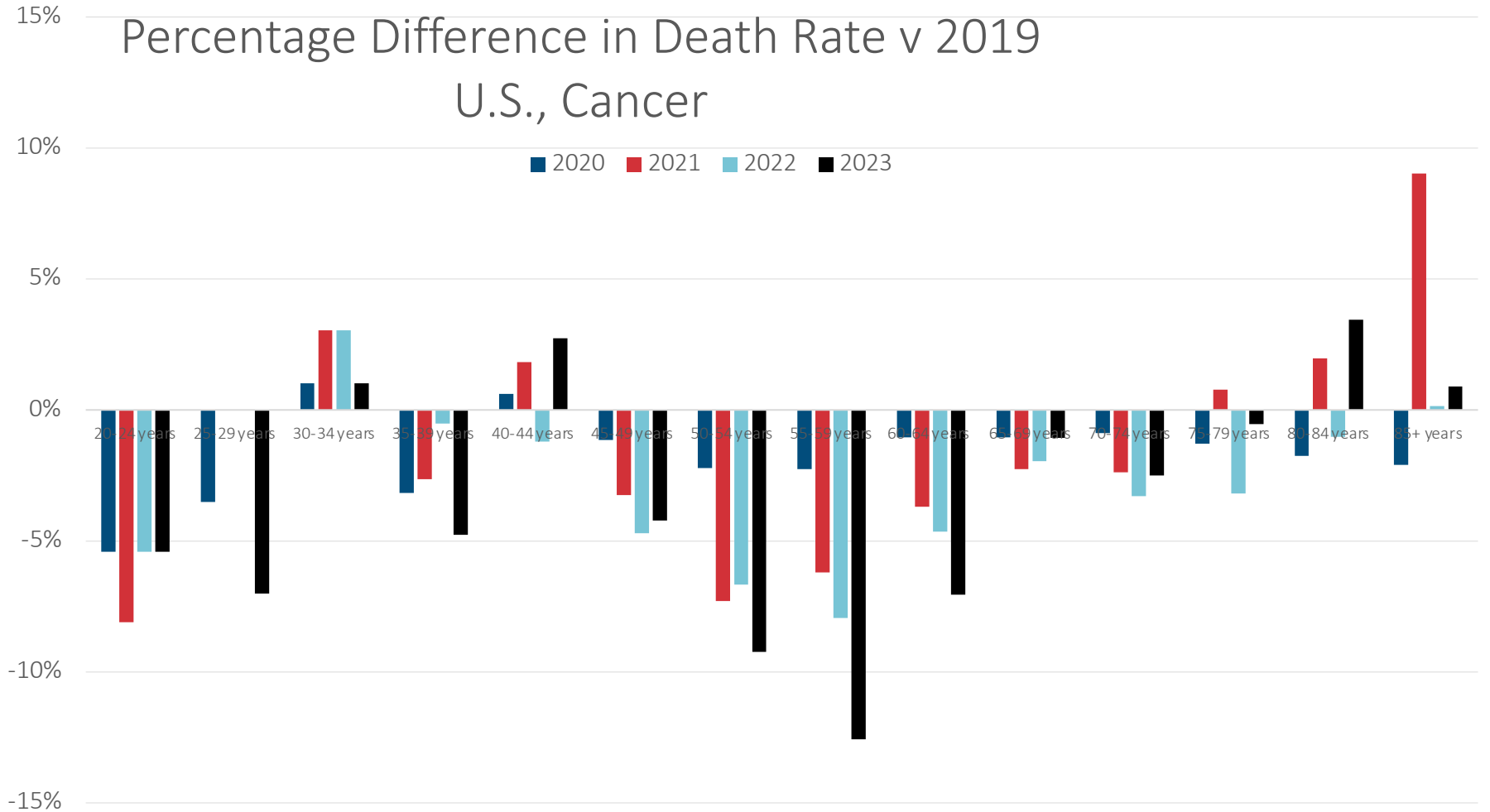
# Death Rates by 5-Year Age Group by Year U.S., Cancer

— 2018 — 2019 — 2020 — 2021 — 2022 — 2023



# Percentage Difference in Death Rate v 2019

## U.S., Cancer



# Cancer deaths, 15-44 years old

By Cancer Type

Percentage Change since 2019

Number of Deaths by Year

	2018	2019	2020	2021	2022	2023
Breast	-6%		-9%	-4%	-5%	-6%
Colon	4%		11%	16%	14%	17%
Leukemia	2%		-4%	-4%	3%	-6%
Lung	3%		1%	2%	1%	-2%
C80 metastatic unspecified	6%		3%	3%	9%	14%
Pancreas	-8%		-3%	4%	5%	-6%
Liver	4%		-2%	3%	12%	8%
Skin	6%		3%	-10%	-2%	5%
Esophagus	-11%		-13%	-4%	-8%	-6%
Testicular	-13%		-3%	6%	3%	13%
Uterine	-7%		-7%	13%	3%	37%
Prostate	4%		39%	-22%	-9%	-26%
Total cancer	0%		0%	3%	4%	4%

By Cancer Type

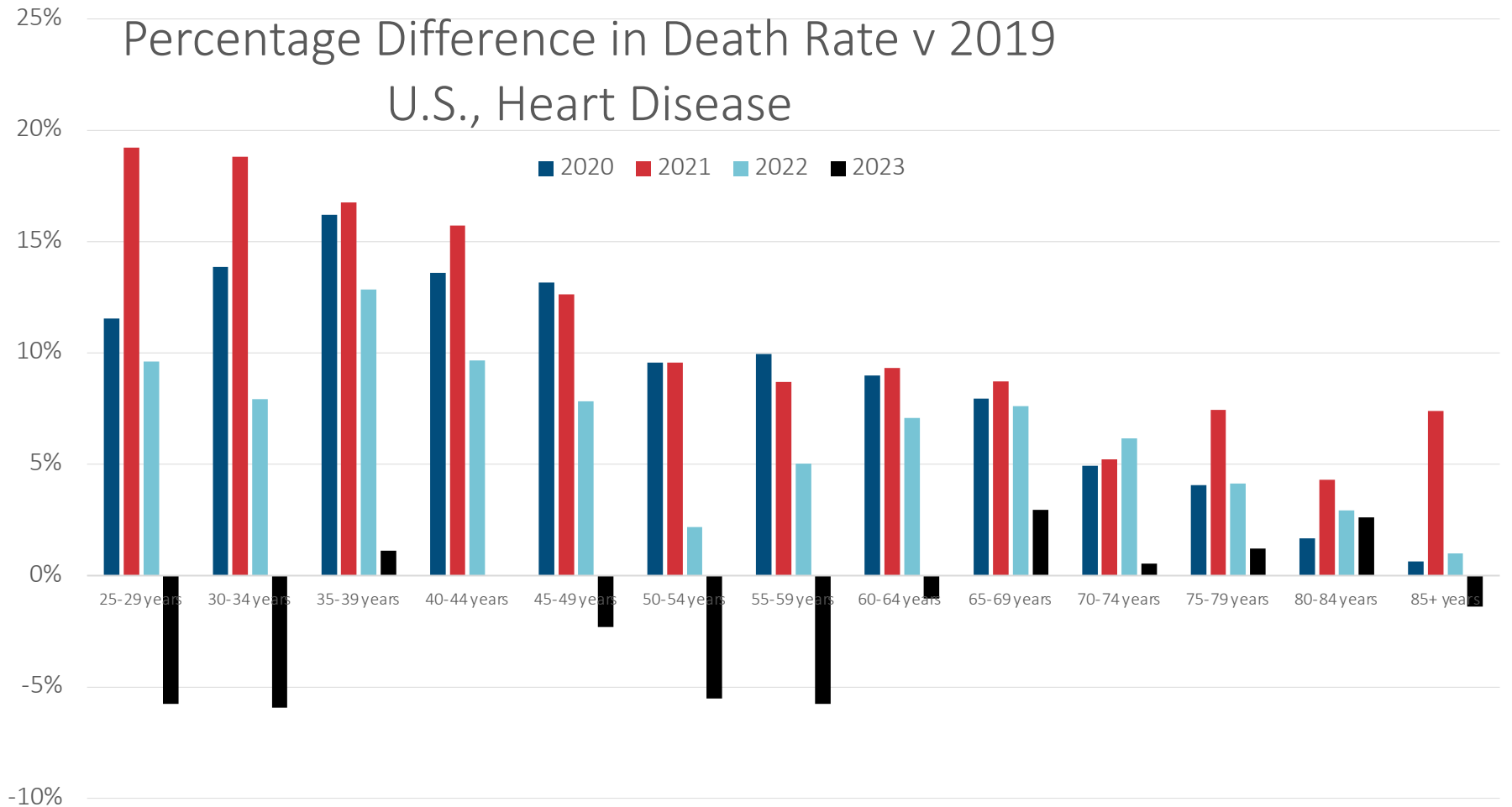
Percentage Change since 2019

# Cancer deaths, all ages

Change versus 2019						
	Number of Deaths by Year					
	2018	2019	2020	2021	2022 (provisional)	2023 (provisional)
<1 year	-7%		-2%	-5%	-27%	-18%
1-4 years	14%		8%	-1%	-7%	-7%
5-14 years	9%		2%	3%	8%	9%
15-24 years	-1%		-6%	-5%	2%	5%
25-34 years	3%		0%	1%	2%	-2%
35-44 years	-1%		0%	5%	4%	5%
45-54 years	5%		-3%	-6%	-6%	-8%
55-64 years	2%		-1%	-3%	-6%	-9%
65-74 years	-1%		3%	5%	5%	5%
75-84 years	-1%		1%	3%	7%	11%
85+ years	0%		-1%	-1%	-2%	-1%
<b>Grand Total</b>	<b>0%</b>		<b>0%</b>	<b>1%</b>	<b>1%</b>	<b>2%</b>

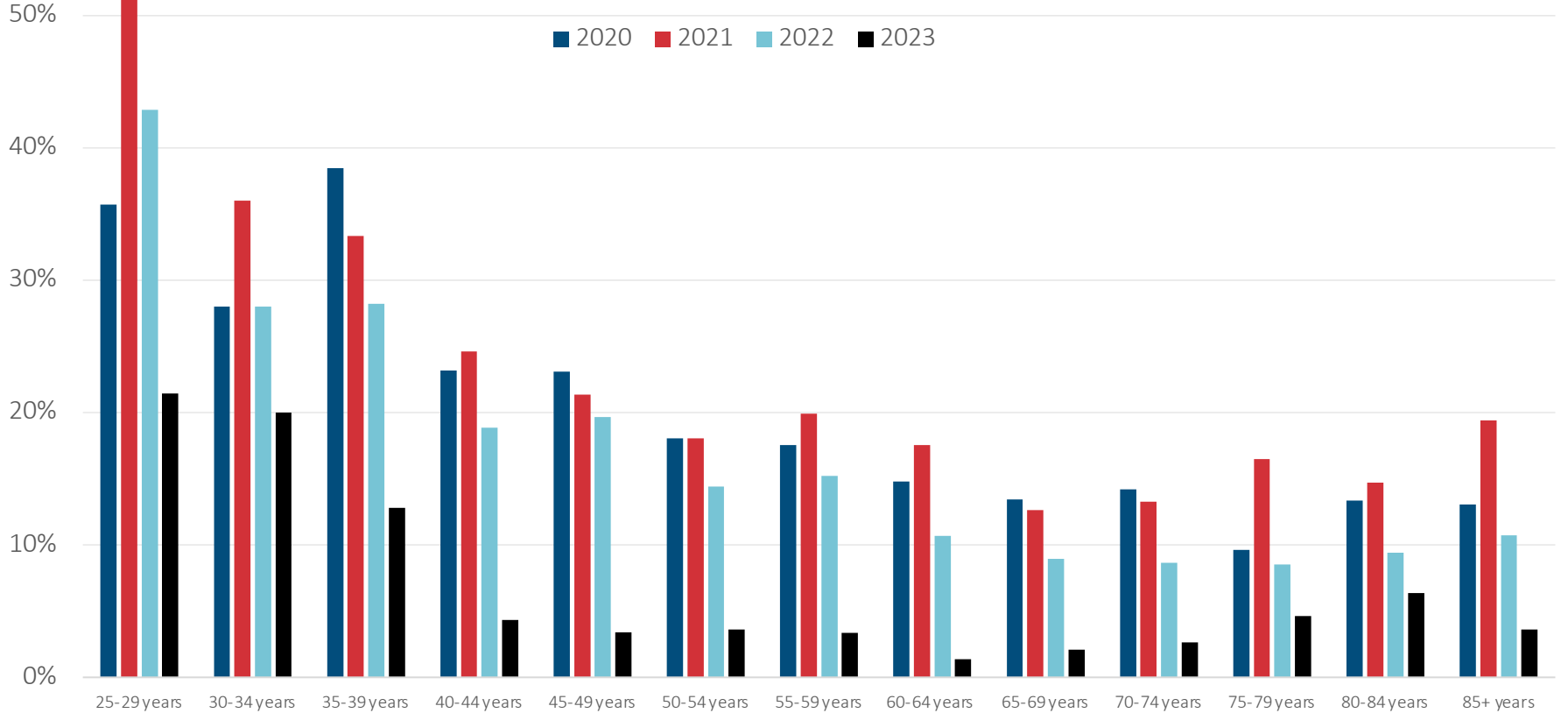
# Percentage Difference in Death Rate v 2019

## U.S., Heart Disease



# Percentage Difference in Death Rate v 2019

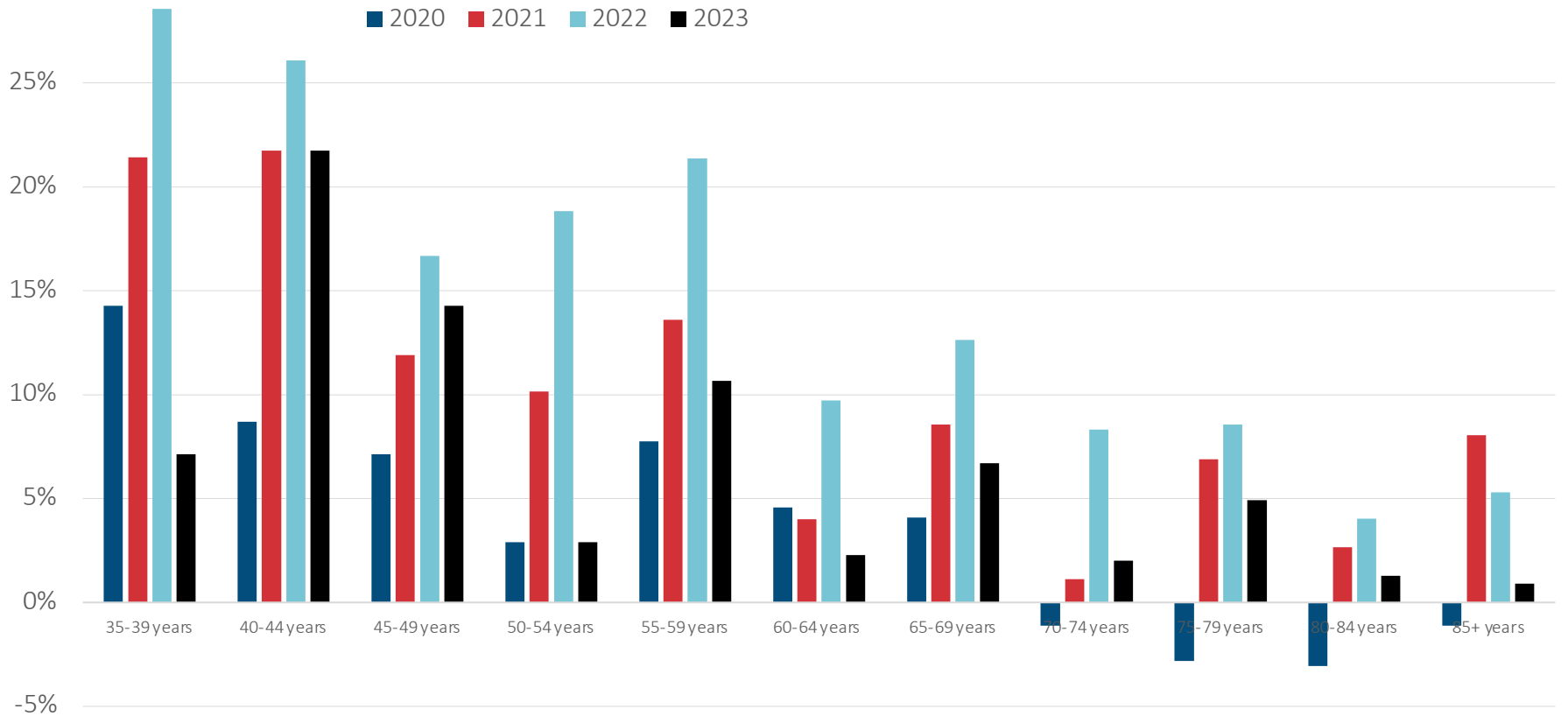
## U.S., Diabetes





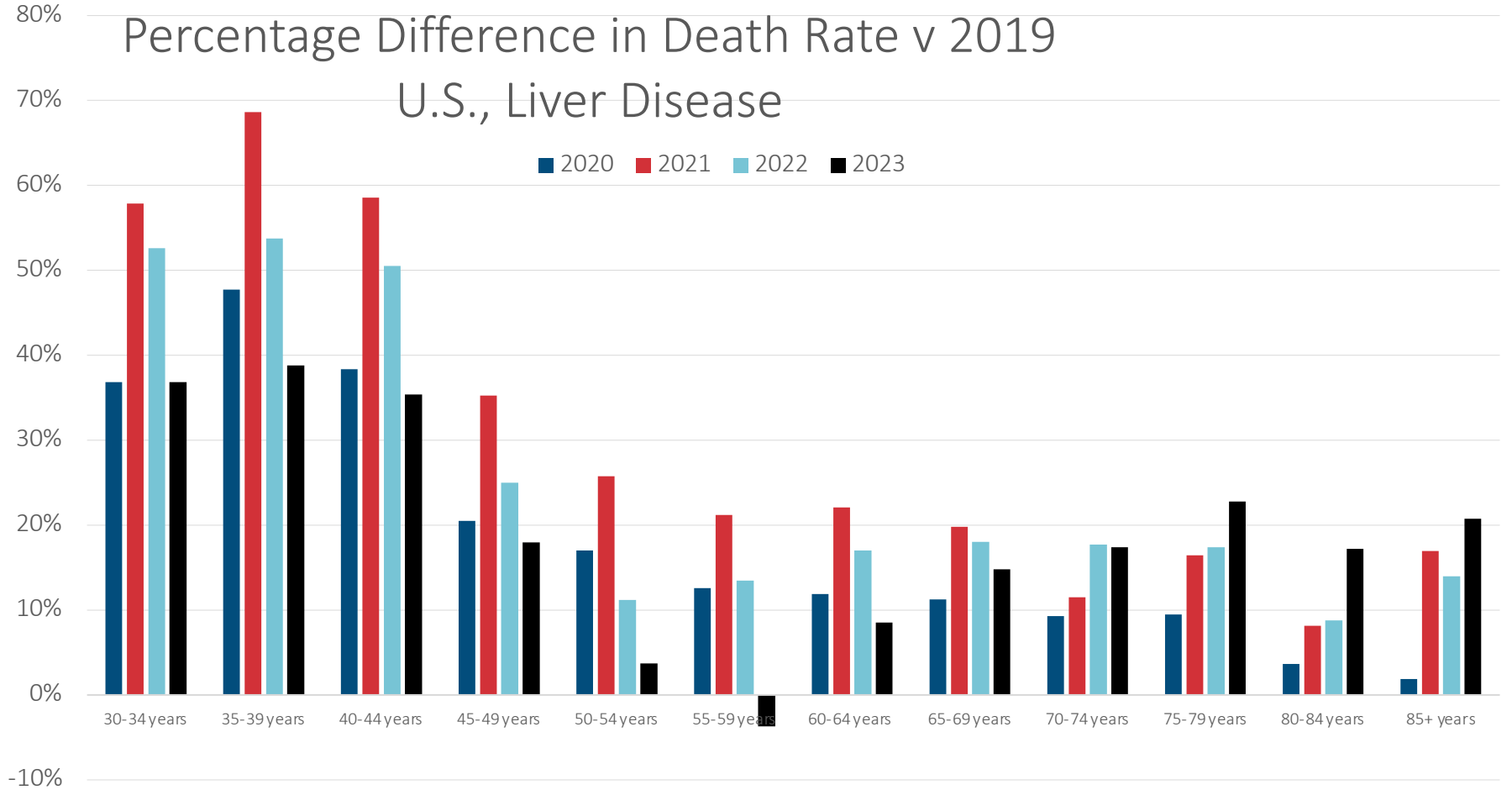
# Percentage Difference in Death Rate v 2019

## U.S., Kidney Disease



# Percentage Difference in Death Rate v 2019

## U.S., Liver Disease



# Mary Pat Campbell links

Substack

<https://marypatcampbell.substack.com/>

Mortality with Meep

<https://marypatcampbell.substack.com/s/mortality-with-meep>

LinkedIn

<https://www.linkedin.com/in/marypatcampbell/>



# The Insurance Collaboration to Save Lives

is a non-profit led by volunteer insurance leaders

...on mission to save lives and mitigate loss

..with low-cost screening, testing, and triage for insureds

...to empower global insurers to save money & lives

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### Mortality is elevated

- Working age mortality continues **~20% excess** (age 15-45, CDC 2023)

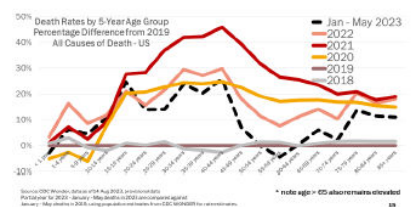
### Morbidity is up too

- Disability is **at all-time record levels** in 2023 (BLS, 2023)

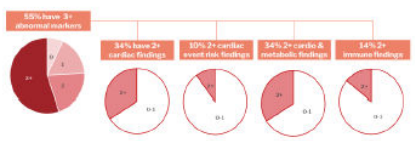
### Many conditions elevated

- Major rise in **heart, stroke, liver & kidney** deaths (CDC, as of 2022)
- **Similar findings** in ICD diagnoses (INEK, 2022)

### This appears driven by younger age deaths, particularly 15-45\*



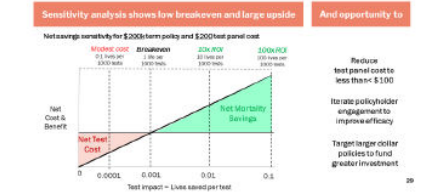
### A majority had three or more abnormal markers



### Our advisory team identified five risk profiles for intervention

<p><b>Signs of possibly serious cardiac concerns</b></p> <p>14% had 3+ markers of cardiac risk (information on injury)</p> <p>Plan also consider with 14% who were unable to complete the cardiac exam</p> <p>Identify whether for medical diagnosis &amp; care.</p>	<p><b>Presence of easily addressed cardiac event risk factor</b></p> <p>20% had High Hemoglobin A1c - factor for heart attacks</p> <p>Systemically caused by chronic kidney disease, heart &amp; other diseases</p> <p>Home visitors (not 14% who were unable to complete the cardiac exam) identify whether to screen them</p>	<p><b>Presence of easily addressed immune risk factor</b></p> <p>24% Vitamin D deficient and 50% below optimal levels</p> <p>Low levels of P-16, vitamin D, zinc, iron, magnesium, selenium, copper, etc.</p> <p>Most U.S. residents regardless of wealth, race, sex, region, income, education, etc.</p> <p>Identify those who need a screen then intervene.</p>	<p><b>Signs of immune illnesses &amp; changes needed</b></p> <p>17% had 3+ markers of heart or kidney disease</p> <p>This includes T2DM, LDL, etc. A.G. Abnormal</p> <p>11% had abnormal renal function lab tests, chronic kidney disease, fasting, etc.</p> <p>Prevalence high &amp; seen for therapy change.</p>	<p><b>Signs of immune signals which may be COVID-related</b></p> <p>24% elevated rheumatoid, especially related to COVID</p> <p>28% had very high CRP antibody levels (4x to 16x normal)</p> <p>Amongst high antibodies may be proxy for acute long or other COVID study is needed.</p> <p>Monitor / long COVID symptoms management, test-high telemedicine.</p>
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### Potential returns from proactive risk mitigation are compelling



<https://www.insurancecollaborationtosavelives.org/>



# Insurance Collaboration to Save Lives

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*seek answers, save lives, mitigate loss*