



# **Insurance Collaboration to Save Lives**

*seek answers, save lives, mitigate loss*

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**The FDA's call for "all hands on deck" for  
the "catastrophic" decline in U.S. longevity  
and how proactive insurance leaders can help**



# Disclaimer

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# Who is the Collaboration? Our volunteers include...



**Josh Stirling, MBA, JD Founder of the Insurance Collaboration to Save Lives**, attorney, advisor, former chief ins. officer, managing director & #1 ranked ins. equity analyst

**Teresa R. Winer, F.S.A., M.A.A.A. L&H Actuary for the State of Georgia's Commissioner of Insurance**, ICSL treasurer and board member, former VP & two-term SOA board member

**Kate Hendricks, MD, MPH TM. Medical advisory team at ICSL**, former medical officer at the Centers for Disease Control and Prevention and Texas Department of State Health Services

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**Mitch Bagley, MBA, Insurance Collaboration to Save Lives board member** and marketing leader, former insurance broker

**Richard H. Watts, MS, Board member at Farmers Group, Inc.**, Apaly Health and Roost, advisor PE & VC backed ventures, and former President of Direct at Progressive Insurance.





## Part I

**The FDA's call for "all-hands-on-deck" for  
the "catastrophic" decline in U.S. longevity**

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**& what's driving this tragedy?**





# The FDA has sounded an alarm on “catastrophic” mortality



**Dr. Robert M. Califf**  

@DrCaliff\_FDA

We are facing extraordinary headwinds in our public health with a major decline in life expectancy. The major decline in the U.S. is not just a trend. I'd describe it as catastrophic.

1:52 PM · Nov 30, 2023 · **20.6K** Views

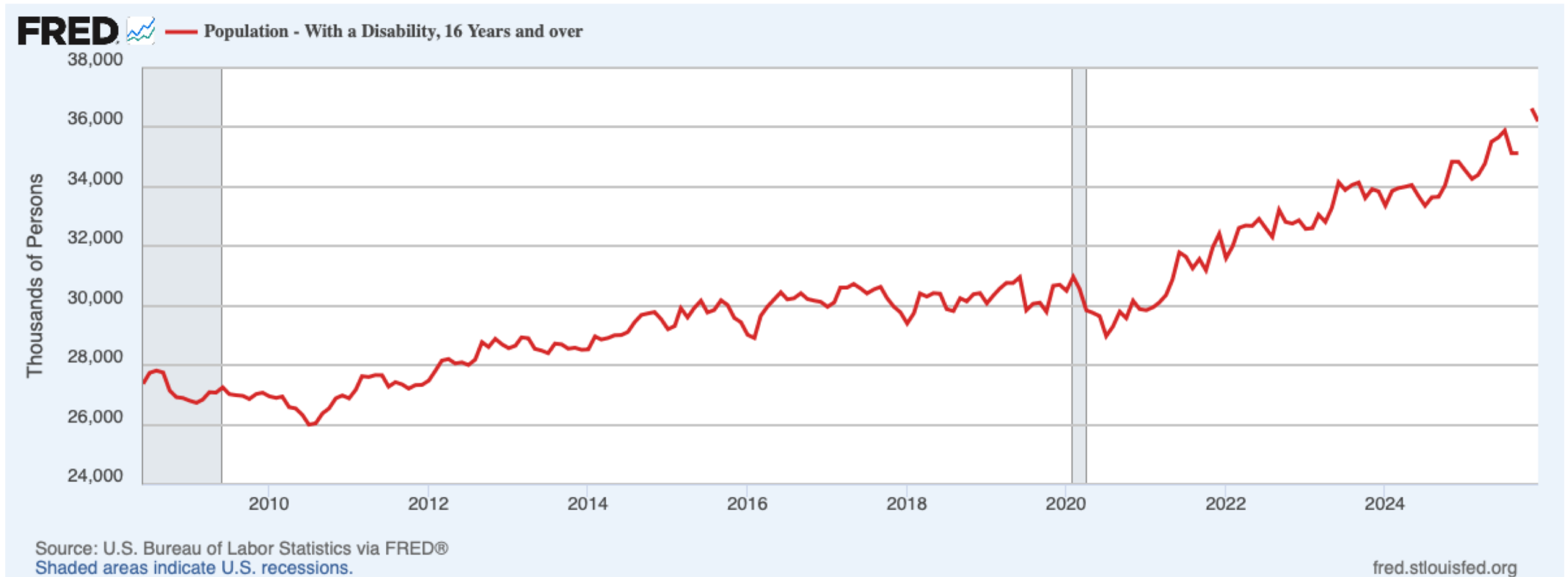


Dr. Robert M. Califf is the Commissioner of the U.S. Food and Drug Administration



# Disability is running at all-time highs

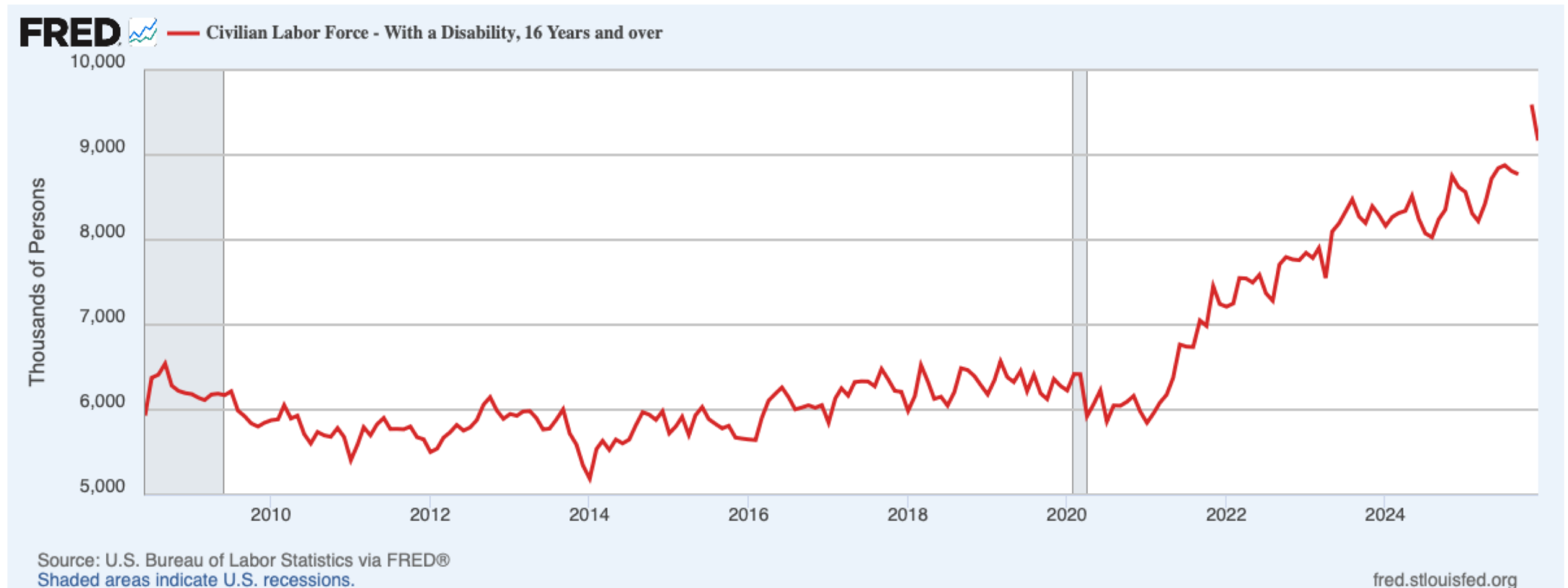
Since COVID ~6mm more reported disabled





# Civilian labor force disability has risen at a tragic rate

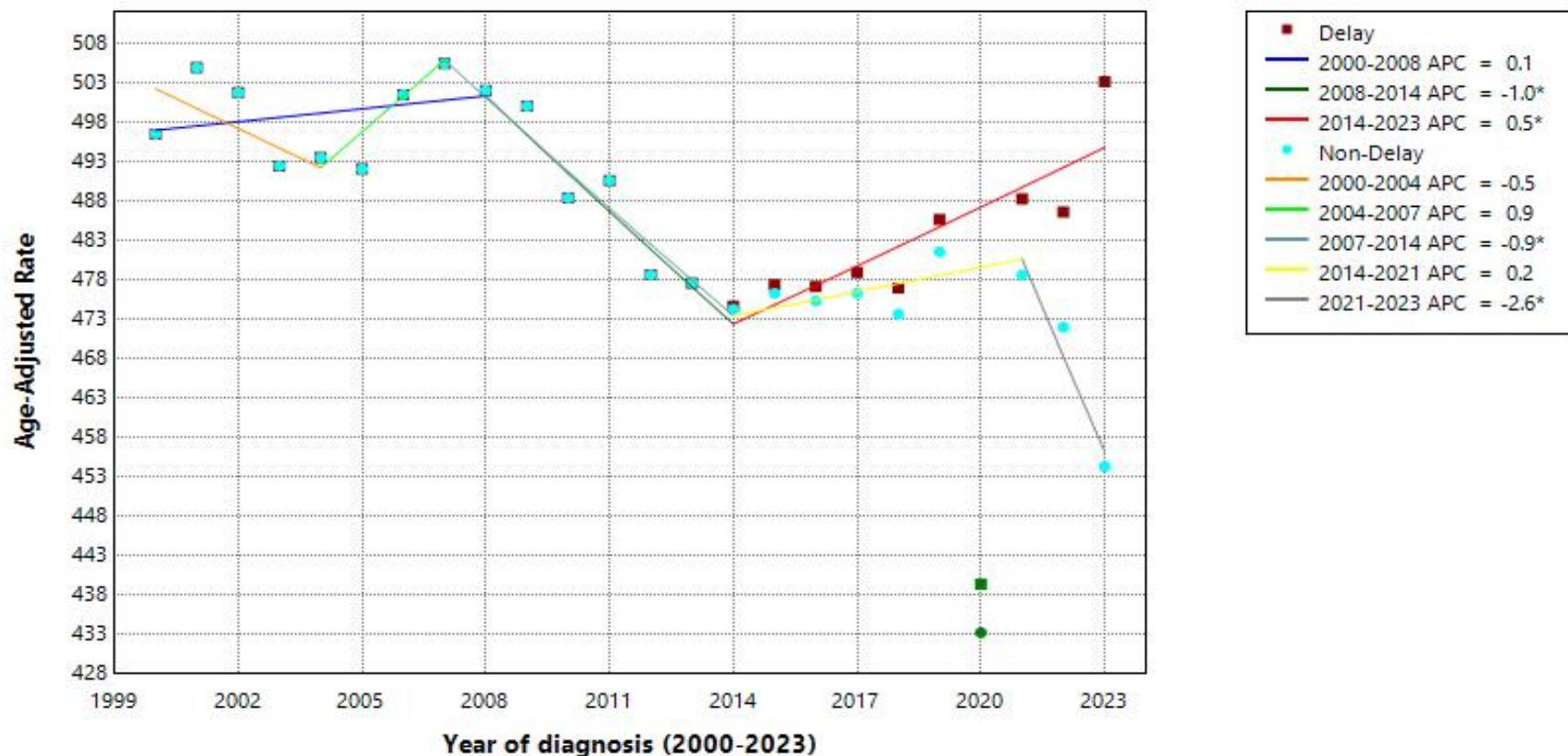
The rate among workers is up **+42%**





# NIH SEER data shows U.S cancer incidence rates are rising

Preliminary Estimates (Selected Registries 2000-2023): All Cancer Sites Combined / Both Sexes  
Delay: 2 Joinpoints versus Non-Delay: 4 Joinpoints#



\* Indicates that the Annual Percent Change (APC) is significantly different from zero at the alpha = 0.05 level.

# The following Observed Y Value was excluded from the model fitting: 2020

Final Selected Model: Delay - 2 Joinpoints, Non-Delay - 4 Joinpoints.



# Our team analyzed mortality and found five troubling trends



## Cardiac & Circulatory

Rates for many cardiac & circulatory linked causes up **8-36%+**

But mortality from trad'l coronary artery disease is down 7%



## Neurological & Nervous system

Rates for many key neuro/nervous causes up **16-39%+**

Including a shift younger for dementia e.g. **+22% for 65-74**



## Metabolic & Digestive

Rates for many key metabolic & digestive causes up **10-137%+**

Nutrition too little, too much, can't digest & higher co-morbidity



## Cancer

Rates for many key cancers have risen by **10-50%+**

Nearly all cancers rising except for lung, breast, colon



## External causes

Rate of accidents, assault, OD's up **11-30%+**

Self harm is down among young, up among old



# #1 Cardiac & Circulatory

## Cardiac & Circulatory Underlying Cause of Death per CDC

5yr change in rate	All	25-54	65+
Hypertensive	+36%	+12-17%	+30-38%
Rheumatic	+25%	+34-40%	+13-30%
Liver	+17%	+10-59%	+12-19%
Anemia	+11%	+24-127%	-1 to +9%
Strokes	+8%	-6 to +14%	+1-3%
Kidney	+5%	+8-43%	-1-3%
Pulmonary	+5%	-6 to +1%	-3 to +8%
Other heart	+2%	-7 to +3%	-5 to +3%
Arteries	-1%	+24-34%	-15 to 0%
Veins & Lymph	-1%	-7 to +15%	-13 to +5%
Ischemic (CAD)	-7%	-7 to -8%	-9 to -14%

## U.S. Mortality Trends Map (Underlying Cause of Death)

Total Five Year Change  
Change in Underlying Cause of Death Rate  
2023 Indexed to 2018  
All Ages, All Causes, (All) & (All)

		Age															
		deaths (000s)	16 1%	2 0%	3 0%	28 1%	59 2%	94 3%	154 5%	361 12%	611 20%	783 26%	872 29%	2,984 100%			
Underlying Cause of Death, ranked by 2023 count																	
1	C00-C97 Malignant neoplasms	598	20%		0.73	0.92	1.04	0.89	0.98	0.90	0.89	0.93	0.95	0.99	1.00		
2	I20-I25 Ischaemic heart diseases	348	12%				0.53	0.93	0.98	0.92	0.93	0.91	0.89	0.86	0.93		
3	I30-I51 Other forms of heart disease	213	7%	0.30			0.84	0.93	1.03	1.02	1.04	1.03	0.98	0.95	1.02		
4	G30-G31 Other degenerative diseases of the nervous system	177	6%					0.85	1.00	1.18	1.22	1.14	1.10	1.16			
5	W00-X59 Other external causes of accidental injury	166	6%	1.21	1.23	1.32	1.19	1.27	1.58	1.48	1.56	1.38	1.15	1.12	1.36		
6	I60-I69 Cerebrovascular diseases	160	5%	1.14			3.38	0.94	1.14	1.09	1.05	1.03	1.01	1.03	1.08		
7	J40-J47 Chronic lower respiratory diseases	144	5%		0.78	0.57	1.63	1.09	0.93	0.71	0.84	0.86	0.83	0.82	0.89		
8	I10-I15 Hypertensive diseases	132	4%				0.71	1.17	1.15	1.12	1.17	1.30	1.34	1.38	1.36		
9	F01-F09 Organic, including symptomatic, mental disorders	110	4%						0.55	1.03	1.00	0.91	0.86	0.91			
10	E10-E14 Diabetes mellitus	93	3%			1.05	1.38	1.08	1.08	1.07	1.01	1.03	1.02	1.10			
11	K70-K76 Diseases of liver	65	2%					1.59	1.48	1.10	1.04	1.12	1.17	1.19	1.17		
12	N17-N19 Renal failure	53	2%					1.43	1.16	1.13	1.08	0.99	0.97	0.97	1.05		
13	U00-U49 Provisional assignment of new diseases of uncertain	50	2%														
14	X60-X84 Intentional self-harm	47	2%			0.74	0.92	1.05	1.05	0.95	0.91	0.95	1.05	1.12	0.99		
15	A30-A49 Other bacterial diseases	45	2%	1.00	1.13	1.56	1.19	1.07	1.15	1.06	1.00	1.03	0.99	0.91	1.04		
16	J09-J18 Influenza and pneumonia	43	1%	0.46	1.18	1.01	0.70	0.91	0.91	0.72	0.78	0.81	0.74	0.61	0.74		
17	G20-G25 Extrapyramidal and movement disorders	42	1%						1.34	1.09	1.10	1.09	1.05	1.16			
18	V01-V99 Transport accidents	40	1%	0.94	1.17	1.09	1.09	1.11	1.23	1.07	1.08	1.10	1.01	1.00	1.11		
19	E70-E88 Metabolic disorders	36	1%		1.31	1.08	0.13	0.47	1.40	1.17	1.27	1.34	1.32	1.35	1.38		
20	J80-J84 Other respiratory diseases principally affecting the in	25	1%					0.69	0.94	0.88	0.93	0.94	1.01	1.07	1.07		
21	I70-I78 Diseases of arteries, arterioles and capillaries	23	1%				0.88	1.24	1.32	1.34	1.03	1.00	0.91	0.85	0.99		
22	K55-K63 Other diseases of intestines	23	1%				0.80	0.91	1.72	1.19	1.14	1.11	1.04	0.98	1.11		
23	E40-E46 Malnutrition	22	1%				0.41	2.22	2.01	2.00	2.21	2.23	2.37	2.37			
24	X85-Y09 Assault	21	1%	0.77	0.73	2.25	1.20	1.11	1.26	1.25	1.17	1.14	0.95	0.67	1.18		
25	J60-J70 Lung diseases due to external agents	20	1%				1.41	1.61	1.09	1.05	1.05	1.02	0.97	0.86	0.99		
26	J96-J98 Other diseases of the respiratory system	19	1%	0.56				1.08	1.23	1.03	1.08	1.07	1.14	1.16	1.18		
27	I26-I28 Pulmonary heart disease and diseases of pulmo	19	1%	0.76			0.80	0.94	0.94	1.01	1.03	0.97	0.96	1.08	1.05		
28	F10-F19 Mental and behavioural disorders due to psychoactive	19	1%				0.42	1.28	1.73	1.25	1.27	1.51	1.22	1.11	1.37		
29	R95-R99 Ill-defined and unknown causes of mortality	14	0%	1.00	1.32	1.07	1.43	1.45	1.54	1.37	1.14	1.06	0.85	0.66	1.07		
30	N30-N39 Other diseases of urinary system	14	0%					1.07	0.95	0.96	1.23	1.17	1.13	1.01	1.14		
31	R50-R68 General symptoms and signs	13	0%				1.01	0.98	1.27	1.07	1.27	1.20	1.11	0.86	1.01		
32	G90-G98 Other disorders of the nervous system	13	0%	0.30			0.96	1.12	1.07	0.89	0.90	0.93	1.02	1.14	1.02		
33	D37-D48 Neoplasms of uncertain or unknown behaviour	13	0%		1.31			1.05	0.69	0.77	0.95	0.93	0.94	0.95	1.00		
34	K90-K92 Other diseases of the digestive system	10	0%					1.38	1.24	0.96	1.05	1.07	1.03	0.90	1.03		
35	K80-K86 Disorders of gallbladder, biliary tract and pancreas	10	0%					1.38	1.19	1.28	1.14	1.13	1.10	1.05	1.16		
36	E65-E68 Obesity and other hyperalimentation	9	0%			1.47	1.29	1.14	1.18	1.09	1.04	1.12	1.23	1.15			
37	G10-G14 Systemic atrophies primarily affecting the central ner	9	0%				2.07	1.26	0.93	0.99	0.98	0.99	0.88	1.05			
38	A00-A09 Intestinal infectious diseases	7	0%	0.91			0.56	1.16	1.08	0.92	0.89	0.78	0.75	0.86			
39	K20-K31 Diseases of oesophagus, stomach and duodenum	6	0%					0.81	0.83	0.97	1.41	1.23	1.01	1.18			
40	G35-G37 Demyelinating diseases of the central nervous system	5	0%				0.83	0.80	0.88	0.95	0.95	1.34	1.18	1.09			
41	G40-G47 Episodic and paroxysmal disorders	5	0%		2.45	1.19	1.22	1.21	1.07	1.08	1.19	1.20	1.28	1.23			
42	D60-D64 Aplastic and other anaemias	4	0%					2.27	1.24	1.20	1.08	1.09	0.99	1.11			
43	Y10-Y34 Event of undetermined intent	4	0%	1.92		1.34	0.89	0.80	0.96	0.72	0.86	1.12	1.08	0.62	0.88		
44	M80-M94 Osteopathies and chondropathies	4	0%					0.68	1.61	1.40	1.37	1.39	1.04	1.30			
45	B20-B24 Human immunodeficiency virus [HIV] disease	4	0%					1.07	0.89	0.58	0.82	1.07	1.53	0.84			
46	I05-I09 Chronic rheumatic heart diseases	4	0%					0.23	1.40	1.34	1.37	1.30	1.13	1.17	1.25		
47	I80-I89 Diseases of veins, lymphatic vessels and lymph	3	0%				0.96	1.15	1.12	0.93	0.87	1.05	0.87	0.95	0.99		
48	L00-L08 Infections of the skin and subcutaneous tissue	3	0%					2.62	1.97	1.29	1.21	1.23	1.24	1.34			
49	G80-G83 Cerebral palsy and other paralytic syndromes	3	0%		0.82	1.23	1.21	1.36	1.11	1.11	1.13	1.13	1.41	1.19			
50	Y85-Y89 Sequelae of external causes of morbidity and mortal	3	0%				2.41	1.83	2.02	1.38	1.58	2.00	1.80	2.00	1.82		
	various All other UCDs not in top 50 individual sub chapters	73	2%	0.96	0.91	1.03	1.12	1.17	1.11	0.88	0.87	0.97	1.02	0.96	0.99		
Grand Total		2,984	100%	0.97	1.15	1.09	1.09	1.16	1.24	1.05	1.00	1.01	1.01	1.00	1.06		





# #1 Cardiac & Circulatory

## Cardiac & Circulatory Contributing Cause of Death per CDC

5yr change in rate	All	25-54	65+
Hypertensive	+31%	+20-29%	+25-27%
Veins & Lymph	+28%	+14-39%	+19-27%
Anemia	+25%	+33-38%	+10-23%
Kidney	+24%	+33-47%	+13-18%
Coagulation	+23%	+19-26%	+11-20%
Pulmonary	+23%	+7-10%	+14-28%
Other urinary	+19%	+20-32%	+7-21%
Liver	+18%	+6-45%	+14-29%
Strokes	+13%	-12 to +17%	+6-10%
Other heart	+8%	+0 to 12%	+2-3%
Arteries	+6%	-2 to +6%	-1 to +4%
Ischemic (CAD)	-1%	-2 to +4%	-2 to -6%

### U.S. Mortality Trends Map (Multiple Cause of Death)

Total Five Year Change  
Change in Contributing Cause of Death Rate  
2023 Indexed to 2018  
All Ages, All Causes, (All) & (All)

Note  
MCD per UCD 3.36

		Age	< 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85+ years	All Ages	
		deaths (000s)	35 0.3%	5 0.1%	9 0.1%	86 0.9%	205 2.1%	339 3.4%	540 5.4%	1,253 12.5%	2,108 21.0%	2,658 26.5%	2,778 27.7%	10,016 100%	
Multiple Cause of Death, ranked by # of 2023 MCDs															
1	I30-I51 Other forms of heart disease	1,258	13%	0.87	0.93	0.89	0.89	1.00	1.12	1.05	1.06	1.05	1.03	1.02	1.08
2	C00-C97 Malignant neoplasms	884	9%		0.59	0.83	0.83	0.88	1.01	0.96	0.95	0.99	1.03	1.06	1.07
3	I10-I15 Hypertensive diseases	698	7%				1.02	1.27	1.29	1.20	1.21	1.25	1.26	1.27	1.31
4	I20-I25 Ischaemic heart diseases	625	6%				0.58	0.98	1.04	0.96	0.97	0.94	0.94	0.92	0.99
5	F10-F19 Mental and behavioural disorders due to psychoactive st	466	5%				1.14	1.29	1.53	1.13	1.06	1.00	0.91	0.93	1.08
6	J95-J98 Other diseases of the respiratory system	447	4%	0.93	1.19	1.06	1.14	1.18	1.30	1.13	1.12	1.12	1.15	1.17	1.21
7	R50-R68 General symptoms and signs	341	3%	1.06	0.80	0.98	1.10	1.23	1.31	1.22	1.16	1.20	1.13	0.98	1.14
8	E10-E14 Diabetes mellitus	341	3%				0.92	1.29	1.12	1.11	1.11	1.07	1.13	1.16	1.18
9	J40-J47 Chronic lower respiratory diseases	339	3%		0.38	0.74	1.04	1.21	1.02	0.86	0.96	0.97	0.95	0.94	1.02
10	I60-I69 Cerebrovascular diseases	299	3%	0.70	1.14	0.96	0.86	0.88	1.17	1.13	1.12	1.10	1.06	1.08	1.13
11	N17-N19 Renal failure	262	3%	0.94	1.14	2.23	1.14	1.46	1.47	1.33	1.26	1.18	1.15	1.13	1.24
12	A30-A49 Other bacterial diseases	261	3%	0.83	1.37	1.30	0.97	1.18	1.27	1.14	1.10	1.08	1.08	1.00	1.13
13	F01-F09 Organic, including symptomatic, mental disorders	251	3%				0.76	1.75	0.92	1.14	1.11	1.03	0.97	1.03	
14	T36-T50 Poisoning by drugs, medicaments and biological substa	237	2%	2.25		7.35	1.13	1.28	1.61	1.54	1.73	2.07	1.43	0.86	1.52
15	E70-E89 Metabolic disorders	234	2%	1.10	0.55	1.28	0.48	0.95	1.39	1.35	1.34	1.40	1.40	1.39	1.46
16	W00-W59 Other external causes of accidental injury	224	2%	1.10	0.90	0.99	1.17	1.27	1.55	1.41	1.47	1.29	1.11	1.07	1.30
17	G30-G31 Other degenerative diseases of the nervous system	212	2%						1.11	1.17	1.17	1.19	1.12	1.09	1.15
18	R00-R09 Symptoms and signs involving the circulatory and r	171	2%	1.07	0.78	0.81	1.07	0.98	1.17	1.13	1.12	1.17	1.16	1.11	1.20
19	J09-J18 Influenza and pneumonia	165	2%	1.00	1.36	0.84	0.82	1.06	1.14	1.01	1.02	1.04	0.99	0.85	1.00
20	K70-K76 Diseases of liver	149	1%	1.04			0.77	1.45	1.37	1.06	1.01	1.14	1.25	1.29	1.18
21	I70-I78 Diseases of arteries, arterioles and capillaries	91	1%				0.98	1.05	1.06	1.03	1.04	1.01	0.99	1.09	1.06
22	E40-E46 Malnutrition	86	1%				0.62	1.53	1.60	1.34	1.52	1.75	1.79	1.90	1.86
23	T08-T14 Injuries to unspecified part of trunk, limb or body region	83	1%	0.84	0.95	1.45	1.23	1.24	1.32	1.19	1.13	1.11	1.20	1.19	1.22
24	I26-I28 Pulmonary heart disease and diseases of pulmonai	82	1%	0.75	0.99	1.10	0.96	1.07	1.08	1.10	1.13	1.14	1.17	1.28	1.23
25	S00-S09 Injuries to the head	80	1%	0.71	0.80	1.00	0.98	1.05	1.13	1.03	1.00	0.99	1.10	1.13	1.08
26	U00-U49 Provisional assignment of new diseases of uncertain eti	78	1%												
27	G90-G98 Other disorders of the nervous system	71	1%	1.07	0.76	0.95	1.04	1.09	1.19	1.02	1.02	1.03	1.08	1.19	1.12
28	D60-D64 Aplastic and other anaemias	68	1%				0.61	1.38	1.36	1.33	1.27	1.23	1.20	1.10	1.25
29	J60-J70 Lung diseases due to external agents	68	1%		0.77	1.20	1.52	1.29	1.11	1.10	1.08	0.97	0.89	1.03	
30	R10-R19 Symptoms and signs involving the digestive system and	67	1%	0.86	1.09	0.94	1.43	1.33	1.26	1.22	1.21	1.12	1.04	1.17	
31	G20-G25 Extrapyramidal and movement disorders	63	1%						1.25	1.14	1.10	1.11	1.05	1.17	
32	E65-E68 Obesity and other hyperalimentation	63	1%				1.18	1.31	1.29	1.28	1.25	1.27	1.46	1.74	1.35
33	J80-J84 Other respiratory diseases principally affecting the inters	61	1%	1.17	0.74	1.02	0.95	0.88	1.04	0.94	1.01	1.02	1.12	1.15	1.14
34	K55-K63 Other diseases of intestines	58	1%	0.68			0.38	1.42	1.36	1.20	1.16	1.14	1.07	1.02	1.15
35	N30-N39 Other diseases of urinary system	55	1%				1.39	1.32	1.29	1.20	1.21	1.21	1.15	1.07	1.19
36	X60-X84 Intentional self-harm	48	0%		0.63	0.90	1.02	1.03	0.92	0.90	0.94	1.05	1.09	0.97	
37	R95-R99 Ill-defined and unknown causes of mortality	44	0%	0.99	1.22	1.05	1.17	1.34	1.38	1.20	1.03	0.96	0.95	0.83	1.02
38	G40-G47 Episodic and paroxysmal disorders	42	0%	1.69	1.18	1.73	1.35	1.32	1.27	1.23	1.19	1.27	1.42	1.46	1.39
39	K90-K92 Other diseases of the digestive system	41	0%				1.98	1.53	1.49	1.03	1.03	1.09	1.09	0.96	1.10
40	V01-V99 Transport accidents	38	0%		0.85	0.92	1.04	1.07	1.17	1.01	1.01	1.03	0.93	0.89	1.05
41	E00-E07 Disorders of thyroid gland	34	0%				1.07	1.14	1.33	1.31	1.32	1.19	1.09	1.09	1.22
42	I80-I89 Diseases of veins, lymphatic vessels and lymph noc	32	0%				1.03	1.39	1.36	1.14	1.15	1.27	1.26	1.19	1.28
43	K20-K31 Diseases of oesophagus, stomach and duodenum	29	0%				1.45	1.10	1.11	1.08	1.22	1.19	1.08	1.20	
44	T66-T78 Other and unspecified effects of external causes	28	0%	1.19	1.11	0.78	0.76	0.91	1.04	0.94	0.98	1.12	1.10	0.99	0.98
45	T00-T07 Injuries involving multiple body regions	28	0%		0.73	0.99	1.10	1.07	1.23	1.11	1.05	1.06	1.13	1.12	1.11
46	J90-J94 Other diseases of pleura	26	0%	0.77			2.02	1.06	1.25	1.38	1.30	1.29	1.26	1.29	1.35
47	F30-F39 Mood [affective] disorders	26	0%				0.72	0.96	1.18	1.08	1.12	1.23	1.23	1.12	1.20
48	M00-M25 Arthropathies	24	0%					1.38	1.14	1.02	1.06	0.99	0.89	1.01	
49	T51-T65 Toxic effects of substances chiefly nonmedicinal as to s	24	0%		0.64	0.74	1.07	1.19	1.27	1.04	1.18	1.16	1.00	0.85	1.14
50	D65-D69 Coagulation defects, purpura and other haemorrh	23	0%	1.43			1.12	1.26	1.39	1.19	1.11	1.20	1.11	1.20	1.23
various All other MCDs not in top 50		594	6%	0.98	0.76	1.06	1.00	0.94	1.04	0.91	0.96	1.05	1.09	1.07	1.08
Grand Total		10,016	0%	0.99	0.97	0.99	1.05	1.16	1.30	1.12	1.09	1.09	1.09	1.08	1.14



# #2 Nervous & Neurological

## Nervous & Neurological Underlying Cause of Death per CDC

5yr change in rate	ALL	25-54	65+
Episodic disorders	+23%	+7 to 22%	+19 to 28%
Cerebral & paralysis	+19%	+11-36%	+13 to 41%
Movement disorders	+16%	+9-34%	+5-10%
Other degenerative	+16%	-15 to +17%	+10-22%
Demyelinating CNS	+9%	-12 to -20%	-5 to +34%
Systemic CNS	+5%	-7 to +107%	-12-1%
Other disorders	+2%	-11 to +12%	-7 to +14%

### U.S. Mortality Trends Map (Underlying Cause of Death)

Total Five Year Change  
Change in Underlying Cause of Death Rate  
2023 Indexed to 2018  
All Ages, All Causes, (All) & (All)

		Age	< 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85+ years	All Ages	
		deaths (000s)	16 1%	2 0%	3 0%	28 1%	59 2%	94 3%	154 5%	361 12%	611 20%	783 26%	872 29%	2,984 100%	
Underlying Cause of Death, ranked by 2023 count															
1	C00-C97 Malignant neoplasms	598	20%		0.73	0.92	1.04	0.89	0.98	0.90	0.89	0.93	0.95	0.99	1.00
2	I20-I25 Ischaemic heart diseases	348	12%				0.53	0.93	0.98	0.92	0.93	0.91	0.89	0.86	0.93
3	I30-I51 Other forms of heart disease	213	7%	0.30			0.84	0.93	1.03	1.02	1.04	1.03	0.98	0.95	1.02
4	G30-G31 Other degenerative diseases of the nervous syst	177	6%						0.85	1.00	1.18	1.22	1.14	1.10	1.16
5	W00-W99 Other external causes of accidental injury	166	6%	1.21	1.23	1.32	1.19	1.27	1.58	1.48	1.56	1.38	1.15	1.12	1.36
6	I60-I69 Cerebrovascular diseases	160	5%	1.14			3.38	0.94	1.14	1.09	1.05	1.03	1.01	1.03	1.08
7	J40-J47 Chronic lower respiratory diseases	144	5%		0.78	0.57	1.63	1.09	0.93	0.71	0.84	0.86	0.83	0.82	0.89
8	I10-I15 Hypertensive diseases	132	4%				0.71	1.17	1.15	1.12	1.17	1.30	1.34	1.38	1.36
9	F01-F09 Organic, including symptomatic, mental disorders	110	4%							0.55	1.03	1.00	0.91	0.86	0.91
10	E10-E14 Diabetes mellitus	93	3%				1.05	1.38	1.08	1.08	1.07	1.01	1.03	1.02	1.10
11	K70-K76 Diseases of liver	65	2%					1.59	1.48	1.10	1.04	1.12	1.17	1.19	1.17
12	N17-N19 Renal failure	53	2%					1.43	1.16	1.13	1.08	0.99	0.97	0.97	1.05
13	U00-U49 Provisional assignment of new diseases of uncertain	50	2%												
14	X60-X84 Intentional self-harm	47	2%			0.74	0.92	1.05	1.05	0.95	0.91	0.95	1.05	1.12	0.99
15	A30-A49 Other bacterial diseases	45	2%	1.00	1.13	1.56	1.19	1.07	1.15	1.06	1.00	1.03	0.99	0.91	1.04
16	J09-J18 Influenza and pneumonia	43	1%	0.46	1.18	1.01	0.70	0.91	0.91	0.72	0.78	0.81	0.74	0.61	0.74
17	G20-G25 Extrapyramidal and movement disorders	42	1%							1.34	1.09	1.10	1.09	1.05	1.16
18	V01-V99 Transport accidents	40	1%	0.94	1.17	1.09	1.09	1.11	1.23	1.07	1.08	1.10	1.01	1.00	1.11
19	E70-E88 Metabolic disorders	36	1%		1.31	1.08	0.13	0.47	1.40	1.17	1.27	1.34	1.32	1.35	1.38
20	J80-J84 Other respiratory diseases principally affecting the in	25	1%					0.69	0.94	0.88	0.93	0.94	1.01	1.07	1.07
21	I70-I78 Diseases of arteries, arterioles and capillaries	23	1%				0.88	1.24	1.32	1.34	1.03	1.00	0.91	0.85	0.99
22	K55-K63 Other diseases of intestines	23	1%				0.80	0.91	1.72	1.19	1.14	1.11	1.04	0.98	1.11
23	E40-E46 Malnutrition	22	1%					0.41	2.22	2.01	2.00	2.21	2.23	2.37	2.37
24	X85-Y09 Assault	21	1%	0.77	0.73	2.25	1.20	1.11	1.26	1.25	1.17	1.14	0.95	0.67	1.18
25	J60-J70 Lung diseases due to external agents	20	1%				1.41	1.61	1.09	1.05	1.05	1.02	0.97	0.86	0.99
26	J96-J98 Other diseases of the respiratory system	19	1%		0.56			1.08	1.23	1.03	1.08	1.07	1.14	1.16	1.18
27	I26-I28 Pulmonary heart disease and diseases of pulmonary	19	1%		0.76			0.80	0.94	0.94	1.01	1.03	0.97	0.96	1.08
28	F10-F19 Mental and behavioural disorders due to psychoactiv	19	1%					0.42	1.28	1.73	1.25	1.27	1.51	1.22	1.11
29	R95-R99 Ill-defined and unknown causes of mortality	14	0%	1.00	1.32	1.07	1.43	1.45	1.54	1.37	1.14	1.06	0.85	0.66	1.07
30	N30-N39 Other diseases of urinary system	14	0%					1.07	0.95	0.96	1.23	1.17	1.13	1.01	1.14
31	R50-R68 General symptoms and signs	13	0%				1.01	0.98	1.27	1.07	1.27	1.20	1.11	0.86	1.01
32	G90-G98 Other disorders of the nervous system	13	0%	0.30			0.96	1.12	1.07	0.89	0.90	0.93	1.02	1.14	1.02
33	D37-D48 Neoplasms of uncertain or unknown behaviour	13	0%			1.31		1.05	0.69	0.77	0.95	0.93	0.94	0.95	1.00
34	K90-K92 Other diseases of the digestive system	10	0%					1.38	1.24	0.96	1.05	1.07	1.03	0.90	1.03
35	K80-K86 Disorders of gallbladder, biliary tract and pancreas	10	0%					1.38	1.19	1.28	1.14	1.13	1.10	1.05	1.16
36	E65-E68 Obesity and other hyperalimentation	9	0%				1.47	1.29	1.14	1.18	1.09	1.04	1.12	1.23	1.15
37	G10-G14 Systemic atrophies primarily affecting the centr	9	0%					2.07	1.26	0.93	0.99	0.98	0.99	0.88	1.05
38	A00-A09 Intestinal infectious diseases	7	0%	0.91				0.56	1.16	1.08	0.92	0.89	0.78	0.75	0.86
39	K20-K31 Diseases of oesophagus, stomach and duodenum	6	0%						0.81	0.83	0.97	1.41	1.23	1.01	1.18
40	G35-G37 Demyelinating diseases of the central nervous s	5	0%						0.83	0.80	0.88	0.95	0.95	1.34	1.18
41	G40-G47 Episodic and paroxysmal disorders	5	0%				2.45	1.19	1.22	1.21	1.07	1.08	1.19	1.20	1.28
42	D60-D64 Aplastic and other anaemias	4	0%						2.27	1.24	1.20	1.08	1.09	0.99	1.11
43	Y10-Y34 Event of undetermined intent	4	0%	1.92		1.34	0.89	0.80	0.96	0.72	0.86	1.12	1.08	0.62	0.88
44	M80-M94 Osteopathies and chondropathies	4	0%						0.68	1.61	1.40	1.37	1.39	1.04	1.30
45	B20-B24 Human immunodeficiency virus [HIV] disease	4	0%					1.07	0.89	0.58	0.82	1.07	1.53		0.84
46	I05-I09 Chronic rheumatic heart diseases	4	0%					0.23	1.40	1.34	1.37	1.30	1.13	1.17	1.25
47	I80-I89 Diseases of veins, lymphatic vessels and lymph nod	3	0%				0.96	1.15	1.12	0.93	0.87	1.05	0.87	0.95	0.99
48	L00-L08 Infections of the skin and subcutaneous tissue	3	0%						2.62	1.97	1.29	1.21	1.23	1.24	1.34
49	G80-G83 Cerebral palsy and other paralytic syndromes	3	0%			0.82	1.23	1.21	1.36	1.11	1.11	1.13	1.13	1.41	1.19
50	Y85-Y89 Sequelae of external causes of morbidity and mortali	3	0%				2.41	1.83	2.02	1.38	1.58	2.00	1.80	2.00	1.82
	various All other UCDs not in top 50 individual sub chapters	73	2%	0.96	0.91	1.03	1.12	1.17	1.11	0.88	0.87	0.97	1.02	0.96	0.99
	Grand Total	2,984	100%	0.97	1.15	1.09	1.09	1.16	1.24	1.05	1.00	1.01	1.01	1.01	1.00





# #2 Nervous & Neurological

## Nervous & Neurological Contributing Cause of Death per CDC

5yr change in rate	All	25-54	65+
Episodic disorders	+39%	+23-32%	+27-46%
Movement disorders	+17%	+25%	+5-11%
Other degenerative	+15%	+11%	+9-19%
Other disorders	+12%	+2-19%	+3-19%

### U.S. Mortality Trends Map (Multiple Cause of Death)

Total Five Year Change  
Change in Contributing Cause of Death Rate  
2023 Indexed to 2018  
All Ages, All Causes, (All) & (All)

Note  
M CD per UCD 3.36

			Age														All	
			Age	year	years	years	years	years	years	years	years	years	years	years	years	years	Ages	
deaths			35	5	9	86	205	339	540	1,253	2,108	2,658	2,778	10,016				
(000s)			0.3%	0.1%	0.1%	0.9%	2.1%	3.4%	5.4%	12.5%	21.0%	26.5%	27.7%	100%				
Multiple Cause of Death, ranked by # of 2023 MCDs																		
1	I30-I51	Other forms of heart disease	1,258	13%	0.87	0.93	0.89	0.89	1.00	1.12	1.05	1.06	1.05	1.03	1.02	1.08		
2	C00-C97	Malignant neoplasms	884	9%		0.59	0.83	0.83	0.88	1.01	0.96	0.95	0.99	1.03	1.06	1.07		
3	I10-I15	Hypertensive diseases	698	7%				1.02	1.27	1.29	1.20	1.21	1.25	1.26	1.27	1.31		
4	I20-I25	Ischaemic heart diseases	625	6%				0.58	0.98	1.04	0.96	0.97	0.94	0.94	0.92	0.99		
5	F10-F19	Mental and behavioural disorders due to psychoactive s	466	5%				1.14	1.29	1.53	1.13	1.06	1.00	0.91	0.93	1.08		
6	J95-J98	Other diseases of the respiratory system	447	4%	0.93	1.19	1.06	1.14	1.18	1.30	1.13	1.12	1.12	1.15	1.17	1.21		
7	R50-R68	General symptoms and signs	341	3%	1.06	0.80	0.98	1.10	1.23	1.31	1.22	1.16	1.20	1.13	0.98	1.14		
8	E10-E14	Diabetes mellitus	341	3%				0.92	1.29	1.12	1.11	1.11	1.07	1.13	1.16	1.18		
9	J40-J47	Chronic lower respiratory diseases	339	3%		0.38	0.74	1.04	1.21	1.02	0.86	0.96	0.97	0.95	0.94	1.02		
10	I60-I69	Cerebrovascular diseases	299	3%	0.70	1.14	0.96	0.86	0.88	1.17	1.13	1.12	1.10	1.06	1.08	1.13		
11	N17-N19	Renal failure	262	3%	0.94	4.14	2.23	1.14	1.46	1.47	1.33	1.26	1.18	1.15	1.13	1.24		
12	A30-A49	Other bacterial diseases	261	3%	0.83	1.37	1.30	0.97	1.18	1.27	1.14	1.10	1.08	1.08	1.00	1.13		
13	F01-F09	Organic, including symptomatic, mental disorders	251	3%				0.76	1.75	0.92	1.14	1.11	1.03	0.97	1.03			
14	T36-T50	Poisoning by drugs, medicaments and biological subst	237	2%	2.25		7.35	1.13	1.28	1.61	1.54	1.73	2.07	1.43	0.86	1.52		
15	E70-E89	Metabolic disorders	234	2%	1.10	0.55	1.28	0.48	0.95	1.39	1.35	1.34	1.40	1.40	1.39	1.46		
16	V00-V59	Other external causes of accidental injury	224	2%	1.10	0.90	0.99	1.17	1.27	1.55	1.41	1.47	1.29	1.11	1.07	1.30		
17	G30-G31	Other degenerative diseases of the nervous system	212	2%							1.11	1.17	1.19	1.12	1.09	1.15		
18	R00-R09	Symptoms and signs involving the circulatory and respir	171	2%	1.07	0.78	0.81	1.07	0.98	1.17	1.13	1.12	1.17	1.16	1.11	1.20		
19	J09-J18	Influenza and pneumonia	165	2%	1.00	1.36	0.84	0.82	1.06	1.14	1.01	1.02	1.04	0.99	0.85	1.00		
20	K70-K76	Diseases of liver	149	1%	1.04			0.77	1.45	1.37	1.06	1.01	1.14	1.25	1.29	1.18		
21	I70-I78	Diseases of arteries, arterioles and capillaries	91	1%					0.98	1.05	1.06	1.03	1.04	1.01	0.99	1.06		
22	E40-E46	Malnutrition	86	1%				0.62	1.53	1.60	1.34	1.52	1.75	1.79	1.90	1.86		
23	T08-T14	Injuries to unspecified part of trunk, limb or body region	83	1%	0.84	0.95	1.45	1.23	1.24	1.32	1.19	1.13	1.11	1.20	1.19	1.22		
24	I26-I28	Pulmonary heart disease and diseases of pulmonary cir	82	1%	0.75	0.99	1.10	0.96	1.07	1.08	1.10	1.13	1.14	1.17	1.28	1.23		
25	S00-S09	Injuries to the head	80	1%	0.71	0.80	1.00	0.98	1.05	1.13	1.03	1.00	0.99	1.10	1.13	1.08		
26	U00-U49	Provisional assignment of new diseases of uncertain eti	78	1%														
27	G90-G98	Other disorders of the nervous system	71	1%	1.07	0.76	0.95	1.04	1.09	1.19	1.02	1.02	1.03	1.08	1.19	1.12		
28	D60-D64	Aplastic and other anaemias	68	1%				0.61	1.38	1.36	1.33	1.27	1.23	1.20	1.10	1.25		
29	J60-J70	Lung diseases due to external agents	68	1%			0.77	1.20	1.52	1.29	1.11	1.10	1.08	0.97	0.89	1.03		
30	R10-R19	Symptoms and signs involving the digestive system and	67	1%	0.86		1.09	0.94	1.43	1.33	1.26	1.22	1.21	1.12	1.04	1.17		
31	G20-G25	Extrapyramidal and movement disorders	63	1%							1.25	1.14	1.10	1.11	1.05	1.17		
32	E65-E68	Obesity and other hyperalimentation	63	1%				1.18	1.31	1.29	1.28	1.25	1.27	1.46	1.74	1.35		
33	J80-J84	Other respiratory diseases principally affecting the inters	61	1%	1.17	0.74	1.02	0.95	0.88	1.04	0.94	1.01	1.02	1.12	1.15	1.14		
34	K55-K63	Other diseases of intestines	58	1%	0.68			0.38	1.42	1.36	1.20	1.16	1.14	1.07	1.02	1.15		
35	N30-N39	Other diseases of urinary system	55	1%				1.39	1.32	1.29	1.20	1.21	1.21	1.15	1.07	1.19		
36	X60-X84	Intentional self-harm	48	0%			0.63	0.90	1.02	1.03	0.92	0.90	0.94	1.05	1.09	0.97		
37	R95-R99	Ill-defined and unknown causes of mortality	44	0%	0.99	1.22	1.05	1.17	1.34	1.38	1.20	1.03	0.96	0.95	0.83	1.02		
38	G40-G47	Episodic and paroxysmal disorders	42	0%	1.69	1.18	1.73	1.35	1.32	1.27	1.23	1.19	1.27	1.42	1.46	1.39		
39	K90-K92	Other diseases of the digestive system	41	0%				1.98	1.53	1.49	1.03	1.03	1.09	1.09	0.96	1.10		
40	V01-V99	Transport accidents	38	0%		0.85	0.92	1.04	1.07	1.17	1.01	1.01	1.03	0.93	0.89	1.05		
41	E00-E07	Disorders of thyroid gland	34	0%					1.07	1.14	1.33	1.31	1.32	1.19	1.09	1.22		
42	I80-I89	Diseases of veins, lymphatic vessels and lymph nodes,	32	0%				1.03	1.39	1.36	1.14	1.15	1.27	1.26	1.19	1.28		
43	K20-K31	Diseases of oesophagus, stomach and duodenum	29	0%					1.45	1.10	1.11	1.08	1.22	1.19	1.08	1.20		
44	T66-T78	Other and unspecified effects of external causes	28	0%	1.19	1.11	0.78	0.76	0.91	1.04	0.94	0.98	1.12	1.10	0.99	0.98		
45	T00-T07	Injuries involving multiple body regions	28	0%		0.73	0.99	1.10	1.07	1.23	1.11	1.05	1.06	1.13	1.12	1.11		
46	J90-J94	Other diseases of pleura	26	0%	0.77			2.02	1.06	1.25	1.38	1.30	1.29	1.26	1.29	1.35		
47	F30-F39	Mood [affective] disorders	26	0%				0.72	0.96	1.18	1.08	1.12	1.23	1.23	1.12	1.20		
48	M00-M25	Arthropathies	24	0%					1.38	1.14	1.02	1.06	0.99	0.89	1.01			
49	T51-T65	Toxic effects of substances chiefly nonmedicinal as to s	24	0%		0.64	0.74	1.07	1.19	1.27	1.04	1.18	1.16	1.00	0.85	1.14		
50	D65-D69	Coagulation defects, purpura and other haemorrhagic cc	23	0%	1.43			1.12	1.26	1.39	1.19	1.11	1.20	1.11	1.20	1.23		
	various	All other MCDs not in top 50	594	6%	0.98	0.76	1.06	1.00	0.94	1.04	0.91	0.96	1.05	1.09	1.07	1.08		
Grand Total			10,016	0%	0.99	0.97	0.99	1.05	1.16	1.30	1.12	1.09	1.09	1.09	1.08	1.14		



# #3 Metabolic & Digestive

## Metabolic & Digestive Underlying Cause of Death per CDC

5yr change in rate	All	25-54	65+
Malnutrition	+137%	-59 to+122%	+121-137%
Metabolic disorder	+38%	-53 to+40%	+32-35%
Oesop, stomach etc	+18%	-17-19%	+1-41%
Obesity	+15%	+18-29%	+4-23%
Other intestines	+11%	-9 to+72%	-2 to+11%
Diabetes mellitus	+10%	+8-38%	+1-3%
Other digestive	+3%	-4 to+38%	-10 to+7%

### U.S. Mortality Trends Map (Underlying Cause of Death)

Total Five Year Change  
Change in Underlying Cause of Death Rate  
2023 Indexed to 2018  
All Ages, All Causes, (All) & (All)

		Age	< 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85+ years	All Ages
		deaths (000s)	16 1%	2 0%	3 0%	28 1%	59 2%	94 3%	154 5%	361 12%	611 20%	783 26%	872 29%	2,984 100%
Underlying Cause of Death, ranked by 2023 count														
1	C00-C97 Malignant neoplasms	598	20%	0.73	0.92	1.04	0.89	0.98	0.90	0.89	0.93	0.95	0.99	1.00
2	I20-I25 Ischaemic heart diseases	348	12%			0.53	0.93	0.98	0.92	0.93	0.91	0.89	0.86	0.93
3	I30-I51 Other forms of heart disease	213	7%	0.30		0.84	0.93	1.03	1.02	1.04	1.03	0.98	0.95	1.02
4	G30-G31 Other degenerative diseases of the nervous system	177	6%					0.85	1.00	1.18	1.22	1.14	1.10	1.16
5	W00-W59 Other external causes of accidental injury	166	6%	1.21	1.23	1.32	1.19	1.27	1.58	1.48	1.56	1.38	1.15	1.12
6	I60-I69 Cerebrovascular diseases	160	5%	1.14				3.38	0.94	1.14	1.09	1.05	1.03	1.01
7	J40-J47 Chronic lower respiratory diseases	144	5%		0.78	0.57	1.63	1.09	0.93	0.71	0.84	0.86	0.83	0.82
8	I10-I15 Hypertensive diseases	132	4%				0.71	1.17	1.15	1.12	1.17	1.30	1.34	1.38
9	F01-F09 Organic, including symptomatic, mental disorders	110	4%						0.55	1.03	1.00	0.91	0.86	0.91
10	E10-E14 Diabetes mellitus	93	3%				1.05	1.38	1.08	1.08	1.07	1.01	1.03	1.02
11	K70-K76 Diseases of liver	65	2%				1.59	1.48	1.10	1.04	1.12	1.17	1.19	1.17
12	N17-N19 Renal failure	53	2%				1.43	1.16	1.13	1.08	0.99	0.97	0.97	1.05
13	U00-U49 Provisional assignment of new diseases of uncertain	50	2%											
14	X60-X84 Intentional self-harm	47	2%			0.74	0.92	1.05	1.05	0.95	0.91	0.95	1.05	1.12
15	A30-A49 Other bacterial diseases	45	2%	1.00	1.13	1.56	1.19	1.07	1.15	1.06	1.00	1.03	0.99	0.91
16	J09-J18 Influenza and pneumonia	43	1%	0.46	1.18	1.01	0.70	0.91	0.91	0.72	0.78	0.81	0.74	0.61
17	G20-G25 Extrapylaridal and movement disorders	42	1%						1.34	1.09	1.10	1.09	1.05	1.16
18	V01-V99 Transport accidents	40	1%	0.94	1.17	1.09	1.09	1.11	1.23	1.07	1.08	1.10	1.01	1.00
19	E70-E88 Metabolic disorders	36	1%	1.31	1.08	0.13	0.47	1.40	1.17	1.27	1.34	1.32	1.35	1.38
20	J80-J84 Other respiratory diseases principally affecting the in	25	1%				0.69	0.94	0.88	0.93	0.94	1.01	1.07	1.07
21	I70-I78 Diseases of arteries, arterioles and capillaries	23	1%			0.88	1.24	1.32	1.34	1.03	1.00	0.91	0.85	0.99
22	K55-K63 Other diseases of intestines	23	1%				0.80	0.91	1.72	1.19	1.14	1.11	1.04	0.98
23	E40-E46 Malnutrition	22	1%				0.41	2.22	2.01	2.00	2.21	2.23	2.37	2.37
24	X85-Y09 Assault	21	1%	0.77	0.73	2.25	1.20	1.11	1.26	1.25	1.17	1.14	0.95	0.67
25	J60-J70 Lung diseases due to external agents	20	1%				1.41	1.61	1.09	1.05	1.05	1.02	0.97	0.86
26	J96-J98 Other diseases of the respiratory system	19	1%	0.56				1.08	1.23	1.03	1.08	1.07	1.14	1.16
27	I26-I28 Pulmonary heart disease and diseases of pulmonary	19	1%	0.76			0.80	0.94	0.94	1.01	1.03	0.97	0.96	1.08
28	F10-F19 Mental and behavioural disorders due to psychoactive	19	1%				0.42	1.28	1.73	1.25	1.27	1.51	1.22	1.11
29	R95-R99 Ill-defined and unknown causes of mortality	14	0%	1.00	1.32	1.07	1.43	1.45	1.54	1.37	1.14	1.06	0.85	0.66
30	N30-N39 Other diseases of urinary system	14	0%				1.07	0.95	0.96	1.23	1.17	1.13	1.01	1.14
31	R50-R68 General symptoms and signs	13	0%				1.01	0.98	1.27	1.07	1.27	1.20	1.11	0.86
32	G90-G98 Other disorders of the nervous system	13	0%	0.30			0.96	1.12	1.07	0.89	0.90	0.93	1.02	1.14
33	D37-D48 Neoplasms of uncertain or unknown behaviour	13	0%			1.31		1.05	0.69	0.77	0.95	0.93	0.94	0.95
34	K90-K92 Other diseases of the digestive system	10	0%				1.38	1.24	0.96	1.05	1.07	1.03	0.90	1.03
35	K80-K86 Disorders of gallbladder, biliary tract and pancreas	10	0%				1.38	1.19	1.28	1.14	1.13	1.10	1.05	1.16
36	E65-E68 Obesity and other hyperalimentation	9	0%				1.47	1.29	1.14	1.18	1.09	1.04	1.12	1.15
37	G10-G14 Systemic atrophies primarily affecting the central ner	9	0%				2.07	1.26	0.93	0.99	0.98	0.99	0.88	1.05
38	A00-A09 Intestinal infectious diseases	7	0%	0.91			0.56	1.16	1.08	0.92	0.89	0.78	0.75	0.86
39	K20-K31 Diseases of oesophagus, stomach and duodenum	6	0%					0.81	0.83	0.97	1.41	1.23	1.01	1.18
40	G35-G37 Demyelinating diseases of the central nervous system	5	0%				0.83	0.80	0.88	0.95	0.95	1.34	1.18	1.09
41	G40-G47 Episodic and paroxysmal disorders	5	0%		2.45	1.19	1.22	1.21	1.07	1.08	1.19	1.20	1.28	1.23
42	D60-D64 Aplastic and other anaemias	4	0%					2.27	1.24	1.20	1.08	1.09	0.99	1.11
43	Y10-Y34 Event of undetermined intent	4	0%	1.92		1.34	0.89	0.80	0.96	0.72	0.86	1.12	1.08	0.82
44	M80-M94 Osteopathies and chondropathies	4	0%					0.68	1.61	1.40	1.37	1.39	1.04	1.30
45	B20-B24 Human immunodeficiency virus [HIV] disease	4	0%					1.07	0.89	0.58	0.82	1.07	1.53	0.84
46	I05-I09 Chronic rheumatic heart diseases	4	0%					0.23	1.40	1.34	1.37	1.30	1.13	1.17
47	I80-I89 Diseases of veins, lymphatic vessels and lymph node	3	0%				0.96	1.15	1.12	0.93	0.87	1.05	0.87	0.95
48	L00-L08 Infections of the skin and subcutaneous tissue	3	0%					2.62	1.97	1.29	1.21	1.23	1.24	1.34
49	G80-G83 Cerebral palsy and other paralytic syndromes	3	0%		0.82	1.23	1.21	1.36	1.11	1.11	1.13	1.13	1.41	1.19
50	Y85-Y89 Sequelae of external causes of morbidity and mortality	3	0%				2.41	1.83	2.02	1.38	1.58	2.00	1.80	2.00
	various All other UCDs not in top 50 individual sub chapters	73	2%	0.96	0.91	1.03	1.12	1.17	1.11	0.88	0.87	0.97	1.02	0.96
	Grand Total	2,984	100%	0.97	1.15	1.09	1.09	1.16	1.24	1.05	1.00	1.01	1.01	1.06



# #3 Metabolic & Digestive

## Metabolic & Digestive Contributing Cause of Death per CDC

5yr change in rate	All	25-54	65+
Malnutrition	+86%	+34-60%	+75-90%
Metabolic disorder	+46%	-5 to +39%	+39-40%
Obesity	+35%	+28-31%	+27-74%
Thyroid	+22%	+7-33%	+9-32%
Diabetes mellitus	+18%	+11-29%	+7-16%
Digestive system	+17%	+26-43%	+4-21%

### U.S. Mortality Trends Map (Multiple Cause of Death)

Total Five Year Change  
Change in Contributing Cause of Death Rate  
2023 Indexed to 2018  
All Ages, All Causes, (All) & (All)

Note  
MCD per UCD 3.36

			Age														All Ages
				< 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85+ years			
			deaths (000s)														
Multiple Cause of Death, ranked by # of 2023 MCDs																	
1	I30-I51	Other forms of heart disease	1,258	13%	0.87	0.93	0.89	0.89	1.00	1.12	1.05	1.06	1.05	1.03	1.02	1.08	
2	C00-C97	Malignant neoplasms	884	9%		0.59	0.83	0.83	0.88	1.01	0.96	0.95	0.99	1.03	1.06	1.07	
3	I10-I15	Hypertensive diseases	698	7%				1.02	1.27	1.29	1.20	1.21	1.25	1.26	1.27	1.31	
4	I20-I25	Ischaemic heart diseases	625	6%				0.58	0.98	1.04	0.96	0.97	0.94	0.94	0.92	0.99	
5	F10-F19	Mental and behavioural disorders due to psychoactive substances	466	5%				1.14	1.29	1.53	1.13	1.06	1.00	0.91	0.93	1.08	
6	J95-J98	Other diseases of the respiratory system	447	4%	0.93	1.19	1.06	1.14	1.18	1.30	1.13	1.12	1.12	1.15	1.17	1.21	
7	R50-R68	General symptoms and signs	341	3%	1.06	0.80	0.98	1.10	1.23	1.31	1.22	1.16	1.20	1.13	0.98	1.14	
8	E10-E14	Diabetes mellitus	341	3%				0.92	1.29	1.12	1.11	1.11	1.07	1.13	1.16	1.18	
9	J40-J47	Chronic lower respiratory diseases	339	3%		0.38	0.74	1.04	1.21	1.02	0.86	0.96	0.97	0.95	0.94	1.02	
10	I60-I69	Cerebrovascular diseases	299	3%	0.70	1.14	0.96	0.86	0.88	1.17	1.13	1.12	1.10	1.06	1.08	1.13	
11	N17-N19	Renal failure	262	3%	0.94	4.14	2.23	1.14	1.46	1.47	1.33	1.26	1.18	1.15	1.13	1.24	
12	A30-A49	Other bacterial diseases	261	3%	0.83	1.37	1.30	0.97	1.18	1.27	1.14	1.10	1.08	1.08	1.00	1.13	
13	F01-F09	Organic, including symptomatic, mental disorders	251	3%					0.76	1.75	0.92	1.14	1.11	1.03	0.97	1.03	
14	T36-T50	Poisoning by drugs, medicaments and biological substances	237	2%	2.25		7.35	1.13	1.28	1.61	1.54	1.73	2.07	1.43	0.86	1.52	
15	E70-E89	Metabolic disorders	234	2%	1.10	0.55	1.28	0.48	0.95	1.39	1.35	1.34	1.40	1.40	1.39	1.46	
16	W00-X59	Other external causes of accidental injury	224	2%	1.10	0.90	0.99	1.17	1.27	1.55	1.41	1.47	1.29	1.11	1.07	1.30	
17	G30-G31	Other degenerative diseases of the nervous system	212	2%							1.11	1.17	1.19	1.12	1.09	1.15	
18	R00-R09	Symptoms and signs involving the circulatory and respiratory systems	171	2%	1.07	0.78	0.81	1.07	0.98	1.17	1.13	1.12	1.17	1.16	1.11	1.20	
19	J09-J18	Influenza and pneumonia	165	2%	1.00	1.36	0.84	0.82	1.06	1.14	1.01	1.02	1.04	0.99	0.85	1.00	
20	K70-K76	Diseases of liver	149	1%	1.04			0.77	1.45	1.37	1.06	1.01	1.14	1.25	1.29	1.18	
21	I70-I78	Diseases of arteries, arterioles and capillaries	91	1%					0.98	1.05	1.06	1.03	1.04	1.01	0.99	1.06	
22	E40-E46	Malnutrition	86	1%				0.62	1.53	1.60	1.34	1.52	1.75	1.79	1.90	1.86	
23	T08-T14	Injuries to unspecified part of trunk, limb or body region	83	1%	0.84	0.95	1.45	1.23	1.24	1.32	1.19	1.13	1.11	1.20	1.19	1.22	
24	I26-I28	Pulmonary heart disease and diseases of pulmonary circulation	82	1%	0.75	0.99	1.10	0.96	1.07	1.08	1.10	1.13	1.14	1.17	1.28	1.23	
25	S00-S09	Injuries to the head	80	1%	0.71	0.80	1.00	0.98	1.05	1.13	1.03	1.00	0.99	1.10	1.13	1.08	
26	U00-U49	Provisional assignment of new diseases of uncertain etiology	78	1%													
27	G90-G98	Other disorders of the nervous system	71	1%	1.07	0.76	0.95	1.04	1.09	1.19	1.02	1.02	1.03	1.08	1.19	1.12	
28	D60-D64	Aplastic and other anaemias	68	1%				0.61	1.38	1.36	1.33	1.27	1.23	1.20	1.10	1.25	
29	J60-J70	Lung diseases due to external agents	68	1%		0.77	1.20	1.52	1.29	1.11	1.10	1.10	1.08	0.97	0.89	1.03	
30	R10-R19	Symptoms and signs involving the digestive system	67	1%	0.86		1.09	0.94	1.43	1.33	1.26	1.22	1.21	1.12	1.04	1.17	
31	G20-G25	Extrapyramidal and movement disorders	63	1%							1.25	1.14	1.10	1.11	1.05	1.17	
32	E65-E68	Obesity and other hyperalimentation	63	1%				1.18	1.31	1.29	1.28	1.25	1.27	1.46	1.74	1.35	
33	J80-J84	Other respiratory diseases principally affecting the interstitium	61	1%	1.17	0.74	1.02	0.95	0.88	1.04	0.94	1.01	1.02	1.12	1.15	1.14	
34	K55-K63	Other diseases of intestines	58	1%	0.68			0.38	1.42	1.36	1.20	1.16	1.14	1.07	1.02	1.15	
35	N30-N39	Other diseases of urinary system	55	1%				1.39	1.32	1.29	1.20	1.21	1.21	1.15	1.07	1.19	
36	X60-X84	Intentional self-harm	48	0%			0.63	0.90	1.02	1.03	0.92	0.90	0.94	1.05	1.09	0.97	
37	R95-R99	Ill-defined and unknown causes of mortality	44	0%	0.99	1.22	1.05	1.17	1.34	1.38	1.20	1.03	0.96	0.95	0.83	1.02	
38	G40-G47	Episodic and paroxysmal disorders	42	0%	1.69	1.18	1.73	1.35	1.32	1.27	1.23	1.19	1.27	1.42	1.46	1.39	
39	K90-K92	Other diseases of the digestive system	41	0%				1.98	1.53	1.49	1.03	1.03	1.09	1.09	0.96	1.10	
40	V01-V99	Transport accidents	38	0%		0.85	0.92	1.04	1.07	1.17	1.01	1.01	1.03	0.93	0.89	1.05	
41	E00-E07	Disorders of thyroid gland	34	0%					1.07	1.14	1.33	1.31	1.32	1.19	1.09	1.22	
42	I80-I89	Diseases of veins, lymphatic vessels and lymph nodes, and haemorrhoids	32	0%				1.03	1.39	1.36	1.14	1.15	1.27	1.26	1.19	1.28	
43	K20-K31	Diseases of oesophagus, stomach and duodenum	29	0%					1.45	1.10	1.11	1.08	1.22	1.19	1.08	1.20	
44	T66-T78	Other and unspecified effects of external causes	28	0%	1.19	1.11	0.78	0.76	0.91	1.04	0.94	0.98	1.12	1.10	0.99	0.98	
45	T00-T07	Injuries involving multiple body regions	28	0%		0.73	0.99	1.10	1.07	1.23	1.11	1.05	1.06	1.13	1.12	1.11	
46	J90-J94	Other diseases of pleura	26	0%	0.77			2.02	1.06	1.25	1.38	1.30	1.29	1.26	1.29	1.35	
47	F30-F39	Mood [affective] disorders	26	0%				0.72	0.96	1.18	1.08	1.12	1.23	1.23	1.12	1.20	
48	M00-M25	Arthropathies	24	0%					1.38	1.14	1.02	1.06	0.99	0.89	0.89	1.01	
49	T51-T65	Toxic effects of substances chiefly nonmedicinal as to their therapeutic use	24	0%		0.64	0.74	1.07	1.19	1.27	1.04	1.18	1.16	1.00	0.85	1.14	
50	D65-D69	Coagulation defects, purpura and other haemorrhagic conditions	23	0%	1.43			1.12	1.26	1.39	1.19	1.11	1.20	1.11	1.20	1.23	
		All other MCDs not in top 50	594	6%	0.98	0.76	1.06	1.00	0.94	1.04	0.91	0.96	1.05	1.09	1.07	1.08	
	Grand Total		10,016	0%	0.99	0.97	0.99	1.05	1.16	1.30	1.12	1.09	1.09	1.09	1.08	1.14	



# #4 Cancer

## Cancer selected Underlying Cause of Death per CDC

5yr change in rate	All	25-54	65+
Lower lobe lung	+63%	9%	+37-100%
Upper lobe lung	+49%	-6%	+33-65%
Oropharynx	+48%	+20%	+38-59%
Dig. Sys. ill defined.	+31%	+23-71%	+20-27%
Multiple sites, prim.	+25%	+27-178%	+16-18%
Lymphoma	+24%	+21-173%	+5-24%
Endom/uterine	+23%	+13-131%	+15-22%
Rectum	+18%	-15 to+21%	+4-14%
Unspecified site	+8%	-7 to+4%	+2-4%
Pancreas, prim.	+6%	-1-4%	-1 to+1%
Breast, primary	-4%	-5-12%	-10-13%
Colon, primary	-8%	-10 to+2%	-12-20%
Lung, primary	-11%	-30 to+4%	-11-17%

### U.S. Mortality Trends Map (Underlying Cause of Death)

Codes that may be rising

Total Five Year Change  
Change in Underlying Cause of Death Rate  
2023 Indexed to 2018  
All Ages, All Causes, (All) & (All)

		Age																All	
		year	years	years	years	years	years	years	years	years	years	years	years	years	years	years	years	Ages	
		na	0	1	1	3	10	31	100	181	180	105	612						
		na	0%	0%	0%	0%	2%	5%	16%	30%	29%	17%	100%						
		deaths																	
		(000s)																	
Underlying Cause of Death, ranked by 2023 count																			
1	C34.9	Bronchus or lung, unspecified - Malignant neoplasms	126	21%				1.04	0.86	0.70	0.79	0.83	0.84	0.89	0.89				
2	C25.9	Pancreas, unspecified - Malignant neoplasms	47	8%				0.96	0.93	0.99	0.97	0.99	1.01	0.99	1.06				
3	C50.9	Breast, unspecified - Malignant neoplasms	42	7%				0.95	0.95	0.88	0.87	0.87	0.96	1.00	0.96				
4	C18.9	Colon, unspecified - Malignant neoplasms	36	6%			1.04	0.90	1.02	0.98	0.94	0.85	0.80	0.88	0.92				
5	C61	Malignant neoplasm of prostate	34	6%						0.82	0.94	0.99	0.97	1.02	1.05				
6	C80	Malignant neoplasm without specification of site	31	5%			0.72	0.93	1.04	0.96	0.97	1.04	1.02	1.04	1.08				
7	C67.9	Bladder, unspecified - Malignant neoplasms	17	3%					0.85	0.79	0.84	0.90	0.94	1.03	1.00				
8	C15.9	Oesophagus, unspecified - Malignant neoplasms	15	3%				0.91	1.00	0.92	0.86	0.93	1.00	1.00	1.00				
9	C71.9	Brain, unspecified - Malignant neoplasms	15	3%			1.09	0.93	1.40	0.80	0.88	1.00	0.90	0.91	0.97	1.01	0.99		
10	C64	Malignant neoplasm of kidney, except renal pelvis	14	2%			1.26			0.71	0.94	0.90	0.96	0.96	0.97	0.98	1.02		
11	C56	Malignant neoplasm of ovary	13	2%				0.90	0.96	0.94	0.85	0.83	0.83	0.88	0.95	0.91			
12	C22.0	Liver cell carcinoma - Malignant neoplasms	13	2%					0.96	1.04	0.70	0.71	1.13	1.22	1.26	1.06			
13	C90.0	Multiple myeloma - Malignant neoplasms	11	2%					0.70	0.80	0.75	0.78	0.88	1.02	0.92				
14	C92.0	Acute myeloid leukaemia - Malignant neoplasms	11	2%			0.36	0.67	1.06	0.89	0.81	0.88	0.88	0.91	1.01	1.00	1.02		
15	C16.9	Stomach, unspecified - Malignant neoplasms	9	2%					1.06	0.88	0.94	0.91	0.89	0.85	0.85	0.93			
16	C22.1	Intrahepatic bile duct carcinoma - Malignant neoplasms	9	2%					0.70	1.11	1.12	1.15	1.15	1.14	1.24	1.23			
17	C20	Malignant neoplasm of rectum	9	1%					0.85	1.21	1.20	1.18	1.14	1.10	1.04	1.18			
18	C54.1	Endometrium - Malignant neoplasms	8	1%					2.31	1.55	1.13	1.04	1.15	1.21	1.22	1.23			
19	C22.9	Liver, unspecified - Malignant neoplasms	8	1%					0.79	0.75	0.67	0.89	0.91	0.96	0.90				
20	C43.9	Malignant melanoma of skin, unspecified - Malignant neoplasms	7	1%				0.88	0.85	0.92	0.87	0.84	0.89	0.94	0.90	0.95			
21	C97	Malignant neoplasms of independent (primary) multiple	7	1%			1.03	1.27	2.78	1.34	1.09	1.18	1.16	1.16	1.25				
22	C85.9	Non-Hodgkin lymphoma, unspecified type	7	1%				0.60	0.96	0.81	0.67	0.67	0.69	0.71	0.74				
23	D46.9	Myelodysplastic syndrome, unspecified - Uncertain neoplasm	6	1%						1.21	0.90	0.83	0.85	0.90	0.93				
24	C83.3	Non-Hodgkin lymphoma large cell (diffuse)	5	1%					2.73	1.37	1.21	1.03	1.05	1.22	1.24	1.24			
25	C55	Malignant neoplasm of uterus, part unspecified	5	1%					1.24	1.03	1.06	0.93	0.96	0.98	1.04				
26	C91.1	Chronic lymphocytic leukaemia - Malignant neoplasms	4	1%						0.81	0.79	0.78	0.94	0.99	0.97				
27	C53.9	Cervix uteri, unspecified - Malignant neoplasms	4	1%				0.66	1.00	0.92	0.94	0.98	0.93	0.93	0.96				
28	C19	Malignant neoplasm of rectosigmoid junction	4	1%				0.64	1.23	1.08	1.10	1.18	1.13	1.17	1.19				
29	C85.1	B-cell lymphoma, unspecified - Malignant neoplasms	3	1%					0.61	0.81	0.84	0.90	0.97	1.03	1.01				
30	C49.9	Connective and soft tissue, unspecified - Malignant neoplasms	3	1%			0.58	0.84	0.97	0.92	0.93	0.96	0.85	0.91	1.05	0.93			
31	C32.9	Larynx, unspecified - Malignant neoplasms	3	0%					1.45	0.74	0.79	0.89	1.03	1.03	0.95				
32	C02.9	Tongue, unspecified - Malignant neoplasms	3	0%					1.00	0.85	0.98	0.95	1.07	1.27	1.31	1.16			
33	C34.1	Upper lobe, bronchus or lung - Malignant neoplasms	3	0%						0.94	1.50	1.33	1.31	1.65	1.49				
34	C79.8	Secondary malignant neoplasm of other specified sites	2	0%					0.84	0.76	0.86	0.87	0.94	0.82	0.91				
35	C44.9	Malignant neoplasm of skin, unspecified - Malignant neoplasms	2	0%					1.32	1.35	1.13	1.10	1.13	1.18	1.21				
36	C23	Malignant neoplasm of gallbladder	2	0%					0.38	1.07	0.86	0.94	0.90	0.94	0.98				
37	C73	Malignant neoplasm of thyroid gland	2	0%					0.75	0.87	0.94	1.04	0.95	1.00	1.04				
38	C26.9	Ill-defined sites within the digestive system - Malignant neoplasms	2	0%					1.71	1.23	1.10	1.27	1.27	1.20	1.31				
39	C95.9	Leukaemia, unspecified - Malignant neoplasms	2	0%				1.00		1.14	0.94	0.80	0.76	0.90	0.89				
40	C78.7	Secondary malignant neoplasm of liver - Malignant neoplasms	2	0%					0.96	0.73	0.97	0.97	0.95	0.96	0.97				
41	C10.9	Oropharynx, unspecified - Malignant neoplasms	2	0%					1.20	1.35	1.38	1.59	1.39	1.48					
42	C44.4	Skin of scalp and neck - Malignant neoplasms	2	0%						0.94	0.97	1.10	1.09	1.14	1.14				
43	C91.0	Acute lymphoblastic leukaemia - Malignant neoplasms	1	0%			1.46	1.15	0.83	0.83	0.94	0.84	0.96	0.88	0.84	0.82	0.92		
44	C51.9	Vulva, unspecified - Malignant neoplasms	1	0%						0.69	0.99	1.05	1.00	1.05	1.08				
45	C34.3	Lower lobe, bronchus or lung - Malignant neoplasms	1	0%						1.09	1.48	1.49	1.37	2.00	1.63				
46	C06.9	Mouth, unspecified - Malignant neoplasms	1	0%						1.15	1.05	1.06	1.23	1.27	1.23				
47	D47.1	Chronic myeloproliferative disease - Uncertain neoplasm	1	0%						0.98	0.92	0.95	1.07	0.98	1.07				
48	D43.2	Brain, unspecified - Uncertain neoplasms	1	0%			1.31		1.05	0.66		0.58	0.81	0.87	0.78	0.71	0.82		
49	C14.0	Pharynx, unspecified - Malignant neoplasms	1	0%						0.59	0.77	0.91	0.98	0.99	0.91				
50	C45.9	Mesothelioma, unspecified - Malignant neoplasms	1	0%						1.04	0.57	0.54	0.68	0.78	0.71				
various		All other MCDs not in top 50	10	2%			0.70	1.02	1.13	0.86	1.01	1.04	1.09	1.18	1.21	1.20	1.24		
Grand Total			612	100%			0.81	0.93	1.03	0.89	0.98	0.90	0.89	0.93	0.95	0.99	1.00		
Grand Total ex. C34.9 Bronchus or lung, unspecified - Malignant neoplasms			485	79%					0.85	1.01	0.96	0.92	0.96	0.98	1.02	1.03			





# #4 Cancer

## Cancer selected Contributing Cause of Death per CDC

5yr change in rate	All	25-54	65+
Retroper., 2ndary	+60%	+6-58%	+48-51%
Lymph, primary	+59%	+0-43%	+43-86%
Digestive, 2ndary	+57%	+50-86%	+37-84%
Adrenal, 2ndary	+40%	-24 to+28%	+27-47%
Bone, 2ndary	+30%	+6-23%	+20-35%
Endo/uterine, prim.	+25%	+0-50%	+16-25%
Liver, 2ndary	+23%	+17-34%	+13-25%
Multiple sites, prim.	+23%	+20-128%	+15-16%
Brain & CNS, 2ndary	+13%	+3-30%	+6-17%
Pancreas, prim.	+7%	-11 to+7%	-1 to+2%
Breast, primary	+2%	-3-10%	-8 to+5%
Colon, primary	-6%	-7 to+2%	-10-17%
Lung, primary	-9%	-4-28%	-7-15%

### U.S. Mortality Trends Map (Multiple Cause of Death)

Total Five Year Change  
Change in Contributing Cause of Death Rate  
2023 Indexed to 2018  
All Ages, All Causes, (All) & (All)

Note  
MCD per UCD 1.52

			Age	< 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85+ years	All Ages				
			deaths (000s)	na	0	1	1	4	14	46	146	266	270	161	907				
				na	0.0%	0.1%	0.1%	0.4%	1.6%	5.0%	16.1%	29.3%	29.7%	17.7%	100%				
Multiple Cause of Death, ranked by # of 2023 MCDs																			
1	C34.9	Bronchus or lung, unspecified - Malignant neoplasms	139	15%				0.96	0.89	0.72	0.81	0.85	0.86	0.92	0.91				
2	C50.9	Breast, unspecified - Malignant neoplasms	54	6%				0.96	0.97	0.90	0.90	0.92	1.03	1.05	1.02				
3	C25.9	Pancreas, unspecified - Malignant neoplasms	50	6%				1.07	0.89	0.99	0.98	0.99	1.02	1.01	1.07				
4	C61	Malignant neoplasm of prostate	49	5%						0.86	0.96	1.02	1.05	1.07	1.11				
5	C18.9	Colon, unspecified - Malignant neoplasms	43	5%				0.93	1.02	0.98	0.96	0.87	0.83	0.90	0.94				
6	C78.7	Secondary malignant neoplasm of liver - Malignant neoplasms	40	4%				1.16	1.34	1.24	1.17	1.09	1.13	1.20	1.25	1.23			
7	C80	Malignant neoplasm without specification of site	36	4%				0.80	0.99	1.06	0.99	0.99	1.05	1.06	1.07	1.11			
8	C79.5	Secondary malignant neoplasm of bone and bone marrow - Malignant	33	4%				0.48	0.88	1.06	1.23	1.20	1.12	1.20	1.26	1.35	1.30		
9	C78.0	Secondary malignant neoplasm of lung - Malignant neoplasms	31	3%				0.45	1.20	1.11	1.24	1.15	1.10	1.13	1.22	1.30	1.24		
10	C67.9	Bladder, unspecified - Malignant neoplasms	23	3%						0.87	0.81	0.86	0.97	0.99	1.07	1.06			
11	C79.3	Secondary malignant neoplasm of brain and cerebral meninges - Mal	23	2%				0.79	1.05	1.30	1.19	1.03	1.01	1.06	1.14	1.17	1.13		
12	C64	Malignant neoplasm of kidney, except renal pelvis	18	2%				0.86	0.63	0.94	0.93	0.98	0.98	1.02	1.06	1.06			
13	C15.9	Esophagus, unspecified - Malignant neoplasms	17	2%					0.94	0.99	0.94	0.87	0.94	1.00	1.03	1.01			
14	C71.9	Brain, unspecified - Malignant neoplasms	16	2%				6.55	1.05	0.89	1.40	0.81	0.86	1.00	0.90	0.92	0.97	1.01	0.99
15	C90.0	Multiple myeloma - Malignant neoplasms	15	2%						0.72	0.78	0.81	0.84	0.95	1.08	0.98			
16	C22.0	Liver cell carcinoma - Malignant neoplasms	15	2%						1.01	0.72	0.72	1.16	1.26	1.33	1.08			
17	C56	Malignant neoplasm of ovary	14	2%				1.02	0.96	0.87	0.84	0.85	0.90	0.96	0.93				
18	C79.8	Secondary malignant neoplasm of other specified sites - Malignant n	13	1%				0.80	1.06	0.90	0.97	0.98	1.11	1.12	1.08				
19	C92.0	Acute myeloid leukaemia - Malignant neoplasms	12	1%				0.85	0.77	0.87	0.92	0.92	1.03	1.03	1.03				
20	C78.6	Secondary malignant neoplasm of retroperitoneum and peritoneum -	12	1%						1.06	1.86	1.58	1.49	1.51	1.48	1.58	1.60		
21	D46.9	Myelodysplastic syndrome, unspecified - Uncertain neoplasms	11	1%						0.77	0.89	0.83	0.89	0.93	0.95				
22	C20	Malignant neoplasm of rectum	10	1%				0.61	1.22	1.20	1.17	1.15	1.13	1.07	1.20				
23	C22.1	Intrahepatic bile duct carcinoma - Malignant neoplasms	10	1%				0.86	1.14	1.16	1.18	1.21	1.20	1.27	1.28				
24	C16.9	Stomach, unspecified - Malignant neoplasms	10	1%				0.96	0.88	0.95	0.92	0.90	0.85	0.89	0.94				
25	C85.9	Non-Hodgkin lymphoma, unspecified type	10	1%				0.64	0.89	0.82	0.70	0.75	0.77	0.81	0.82				
26	C54.1	Endometrium - Malignant neoplasms	9	1%				1.00	1.50	1.17	1.06	1.16	1.22	1.25	1.25				
27	C43.9	Malignant melanoma of skin, unspecified - Malignant neoplasms	9	1%				0.85	0.90	0.88	0.84	0.93	0.94	0.95	0.97				
28	C22.9	Liver, unspecified - Malignant neoplasms	8	1%				0.64	0.74	0.68	0.90	0.93	0.96	0.91					
29	C77.9	Lymph node, unspecified - Malignant neoplasms	8	1%				1.21	1.00	1.43	1.38	1.43	1.55	1.86	1.59				
30	C91.1	Chronic lymphocytic leukaemia - Malignant neoplasms	8	1%						0.70	0.95	0.90	1.07	1.08	1.09				
31	C78.2	Secondary malignant neoplasm of pleura - Malignant neoplasms	7	1%				0.76	1.07	1.41	1.29	1.20	1.38	1.31	1.37				
32	C97	Malignant neoplasms of independent (primary) multiple sites	7	1%				1.20	2.28	1.32	1.07	1.16	1.15	1.16	1.23				
33	C83.3	Non-Hodgkin lymphoma large cell (diffuse)	6	1%				0.97	1.25	1.15	1.11	1.14	1.30	1.33	1.31				
34	C78.8	Secondary malignant neoplasm of other and unspecified digestive org	6	1%						1.85	1.50	1.38	1.37	1.51	1.84	1.57			
35	C55	Malignant neoplasm of uterus, part unspecified	6	1%				0.98	1.03	1.07	0.93	0.98	0.98	1.04					
36	C85.1	B-cell lymphoma, unspecified - Malignant neoplasms	5	1%				0.45	0.87	0.90	0.99	1.07	1.12	1.10					
37	C53.9	Cervix uteri, unspecified - Malignant neoplasms	5	0%				0.68	1.02	0.90	0.96	1.02	0.97	0.93	0.98				
38	C19	Malignant neoplasm of rectosigmoid junction	4	0%				0.36	1.18	1.09	1.15	1.20	1.09	1.21	1.20				
39	C32.9	Larynx, unspecified - Malignant neoplasms	4	0%				0.94	0.74	0.79	0.91	1.00	1.05	0.96					
40	C44.9	Malignant neoplasm of skin, unspecified - Malignant neoplasms	4	0%				0.94	1.31	1.08	1.18	1.18	1.16	1.22					
41	C49.9	Connective and soft tissue, unspecified - Malignant neoplasms	4	0%				2.69	0.58	0.75	0.92	0.90	0.93	0.86	0.89	0.92	0.96	0.93	
42	C02.9	Tongue, unspecified - Malignant neoplasms	3	0%				0.82	0.92	0.93	1.09	1.25	1.24	1.14					
43	C73	Malignant neoplasm of thyroid gland	3	0%				1.23	0.97	0.98	1.07	1.11	1.11	1.14					
44	C95.9	Leukaemia, unspecified - Malignant neoplasms	3	0%				0.34	1.87	1.21	0.98	0.88	0.84	0.96	0.96				
45	C34.1	Upper lobe, bronchus or lung - Malignant neoplasms	3	0%						0.93	1.54	1.32	1.28	1.63	1.48				
46	C79.7	Secondary malignant neoplasm of adrenal gland - Malignant neoplas	3	0%				0.76	1.13	1.28	1.27	1.47	1.37	1.40					
47	C23	Malignant neoplasm of gallbladder	2	0%				0.37	0.97	0.82	0.96	0.95	0.99	0.99					
48	D47.1	Chronic myeloproliferative disease - Uncertain neoplasms	2	0%						1.04	1.00	0.96	1.10	1.05	1.12				
49	C26.9	Ill-defined sites within the digestive system - Malignant neoplasms	2	0%				1.45	1.15	1.14	1.29	1.28	1.20	1.32					
50	C44.4	Skin of scalp and neck - Malignant neoplasms	2	0%						0.83	0.99	1.11	1.17	1.14	1.15				
various All other MCDs not in top 50			16	2%				0.71	0.98	0.75	0.73	0.75	0.89	1.01	1.12	1.16	1.14	1.16	
Grand Total			907	100%				0.56	0.83	0.82	0.88	1.01	0.96	0.95	0.99	1.02	1.06	1.07	
Grand Total ex. C34.9 Bronchus or lung, unspecified - Malignant neoplas			768	85%				0.87	1.03	1.01	0.97	1.02	1.05	1.08	1.09				



# #5 External Causes

## External selected Underlying Cause of Death per CDC

5yr change in rate	All	<25	25-54	65+
Seq. of ext. cause	+82%	141%	+38-102%	+80-100%
Disorders due to psycho. Drugs	+37%	-58%	+25-73%	+11-51%
Other external (largely overdoses)	+36%	+19-32%	+27-56%	+12-38%
Assault	+18%	-27 to +125%	+11-26%	-33 to +14%
Transport accidents	+11%	-6% +17%	+7 to 23%	-0 to +10%
Intentional self harm	-1%	-8 -26%	-5 to +5%	-5 to +12%
Undetermined event	-12%	-11 to +92%	-4 -28%	-38% to +12%

### U.S. Mortality Trends Map (Underlying Cause of Death)

Total Five Year Change  
Change in Underlying Cause of Death Rate  
2023 Indexed to 2018  
All Ages, All Causes, (All) & (All)

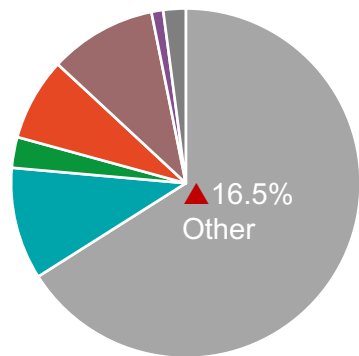
		Age	< 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85+ years	All Ages	
		deaths (000s)	16 1%	2 0%	3 0%	28 1%	59 2%	94 3%	154 5%	361 12%	611 20%	783 26%	872 29%	2,984 100%	
Underlying Cause of Death, ranked by 2023 count															
1	C00-C97 Malignant neoplasms	598	20%		0.73	0.92	1.04	0.89	0.98	0.90	0.89	0.93	0.95	0.99	1.00
2	I20-I25 Ischaemic heart diseases	348	12%				0.53	0.93	0.98	0.92	0.93	0.91	0.89	0.86	0.93
3	I30-I51 Other forms of heart disease	213	7%	0.30			0.84	0.93	1.03	1.02	1.04	1.03	0.98	0.95	1.02
4	G30-G31 Other degenerative diseases of the nervous system	177	6%					0.85	1.00	1.18	1.22	1.14	1.10	1.16	
5	W00-X59 Other external causes of accidental injury	166	6%	1.21	1.23	1.32	1.19	1.27	1.58	1.48	1.56	1.38	1.15	1.12	1.36
6	I60-I69 Cerebrovascular diseases	160	5%	1.14			3.38	0.94	1.14	1.09	1.05	1.03	1.01	1.03	1.08
7	J40-J47 Chronic lower respiratory diseases	144	5%		0.78	0.57	1.63	1.09	0.93	0.71	0.84	0.86	0.83	0.82	0.89
8	I10-I15 Hypertensive diseases	132	4%				0.71	1.17	1.15	1.12	1.17	1.30	1.34	1.38	1.36
9	F01-F09 Organic, including symptomatic, mental disorders	110	4%						0.55	1.03	1.00	0.91	0.86	0.91	
10	E10-E14 Diabetes mellitus	93	3%			1.05	1.38	1.08	1.08	1.07	1.01	1.03	1.02	1.10	
11	K70-K76 Diseases of liver	65	2%				1.59	1.48	1.10	1.04	1.12	1.17	1.19	1.17	
12	N17-N19 Renal failure	53	2%				1.43	1.16	1.13	1.08	0.99	0.97	0.97	1.05	
13	U00-U49 Provisional assignment of new diseases of uncertain etiology	50	2%												
14	X60-X84 Intentional self-harm	47	2%			0.74	0.92	1.05	1.05	0.95	0.91	0.95	1.05	1.12	0.99
15	A30-A49 Other bacterial diseases	45	2%	1.00	1.13	1.56	1.19	1.07	1.15	1.06	1.00	1.03	0.99	0.91	1.04
16	J09-J18 Influenza and pneumonia	43	1%	0.46	1.18	1.01	0.70	0.91	0.91	0.72	0.78	0.81	0.74	0.61	0.74
17	G20-G25 Extrapramidal and movement disorders	42	1%							1.34	1.09	1.10	1.09	1.05	1.16
18	V01-V99 Transport accidents	40	1%	0.94	1.17	1.09	1.09	1.11	1.23	1.07	1.08	1.10	1.01	1.00	1.11
19	E70-E88 Metabolic disorders	36	1%		1.31	1.08	0.13	0.47	1.40	1.17	1.27	1.34	1.32	1.35	1.38
20	J80-J84 Other respiratory diseases principally affecting the interstitium	25	1%				0.69	0.94	0.88	0.93	0.94	1.01	1.07	1.07	
21	I70-I78 Diseases of arteries, arterioles and capillaries	23	1%			0.88	1.24	1.32	1.34	1.03	1.00	0.91	0.85	0.99	
22	K55-K63 Other diseases of intestines	23	1%			0.80	0.91	1.72	1.19	1.14	1.11	1.04	0.98	0.98	1.11
23	E40-E46 Malnutrition	22	1%				0.41	2.22	2.01	2.00	2.21	2.23	2.37	2.37	
24	X85-Y09 Assault	21	1%	0.77	0.73	2.25	1.20	1.11	1.26	1.25	1.17	1.14	0.95	0.67	1.18
25	J60-J70 Lung diseases due to external agents	20	1%				1.41	1.61	1.09	1.05	1.05	1.02	0.97	0.86	0.99
26	J96-J98 Other diseases of the respiratory system	19	1%	0.56			1.08	1.23	1.03	1.08	1.07	1.14	1.16	1.18	
27	I26-I28 Pulmonary heart disease and diseases of pulmonary circulation	19	1%	0.76			0.80	0.94	0.94	1.01	1.03	0.97	0.96	1.08	1.05
28	F10-F19 Mental and behavioural disorders due to psychoactive substance use	19	1%				0.42	1.28	1.73	1.25	1.27	1.51	1.22	1.11	1.37
29	R95-R99 Ill-defined and unknown causes of mortality	14	0%	1.00	1.32	1.07	1.43	1.45	1.54	1.37	1.14	1.06	0.85	0.66	1.07
30	N30-N39 Other diseases of urinary system	14	0%					1.07	0.95	0.96	1.23	1.17	1.13	1.01	1.14
31	R50-R68 General symptoms and signs	13	0%				1.01	0.98	1.27	1.07	1.27	1.20	1.11	0.86	1.01
32	G90-G98 Other disorders of the nervous system	13	0%	0.30			0.96	1.12	1.07	0.89	0.90	0.93	1.02	1.14	1.02
33	D37-D48 Neoplasms of uncertain or unknown behaviour	13	0%		1.31			1.05	0.69	0.77	0.95	0.93	0.94	0.95	1.00
34	K90-K92 Other diseases of the digestive system	10	0%				1.38	1.24	0.96	1.05	1.07	1.03	0.90	1.03	
35	K80-K86 Disorders of gallbladder, biliary tract and pancreas	10	0%				1.38	1.19	1.28	1.14	1.13	1.10	1.05	1.16	
36	E65-E68 Obesity and other hyperalimentation	9	0%			1.47	1.29	1.14	1.18	1.09	1.04	1.12	1.23	1.15	
37	G10-G14 Systemic atrophies primarily affecting the central nervous system	9	0%				2.07	1.26	0.93	0.99	0.98	0.99	0.88	1.05	
38	A00-A09 Intestinal infectious diseases	7	0%	0.91			0.56	1.16	1.08	0.92	0.89	0.78	0.75	0.86	
39	K20-K31 Diseases of oesophagus, stomach and duodenum	6	0%					0.81	0.83	0.97	1.41	1.23	1.01	1.18	
40	G35-G37 Demyelinating diseases of the central nervous system	5	0%					0.83	0.80	0.88	0.95	0.95	1.34	1.18	1.09
41	G40-G47 Episodic and paroxysmal disorders	5	0%			2.45	1.19	1.22	1.21	1.07	1.08	1.19	1.20	1.28	1.23
42	D60-D64 Aplastic and other anaemias	4	0%					2.27	1.24	1.20	1.08	1.09	0.99	1.11	
43	Y10-Y34 Event of undetermined intent	4	0%	1.92		1.34	0.89	0.80	0.96	0.72	0.86	1.12	1.08	0.62	0.88
44	M80-M94 Osteopathies and chondropathies	4	0%					0.68	1.61	1.40	1.37	1.39	1.04	1.30	
45	B20-B24 Human immunodeficiency virus (HIV) disease	4	0%					1.07	0.89	0.58	0.82	1.07	1.53	0.84	
46	I05-I09 Chronic rheumatic heart diseases	4	0%				0.23	1.40	1.34	1.37	1.30	1.13	1.17	1.25	
47	I80-I89 Diseases of veins, lymphatic vessels and lymph nodes, not elsewhere classified	3	0%			0.96	1.15	1.12	0.93	0.87	1.05	0.87	0.95	0.99	0.99
48	L00-L08 Infections of the skin and subcutaneous tissue	3	0%					2.62	1.97	1.29	1.21	1.23	1.24	1.34	
49	G80-G83 Cerebral palsy and other paralytic syndromes	3	0%			0.82	1.23	1.21	1.36	1.11	1.11	1.13	1.13	1.41	1.19
50	Y85-Y89 Sequelae of external causes of morbidity and mortality	3	0%				2.41	1.83	2.02	1.38	1.58	2.00	1.80	2.00	1.82
various All other UCDs not in top 50 individual sub chapters		73	2%	0.96	0.91	1.03	1.12	1.17	1.11	0.88	0.87	0.97	1.02	0.96	0.99
Grand Total		2,984	100%	0.97	1.15	1.09	1.09	1.16	1.24	1.05	1.00	1.01	1.01	1.00	1.06



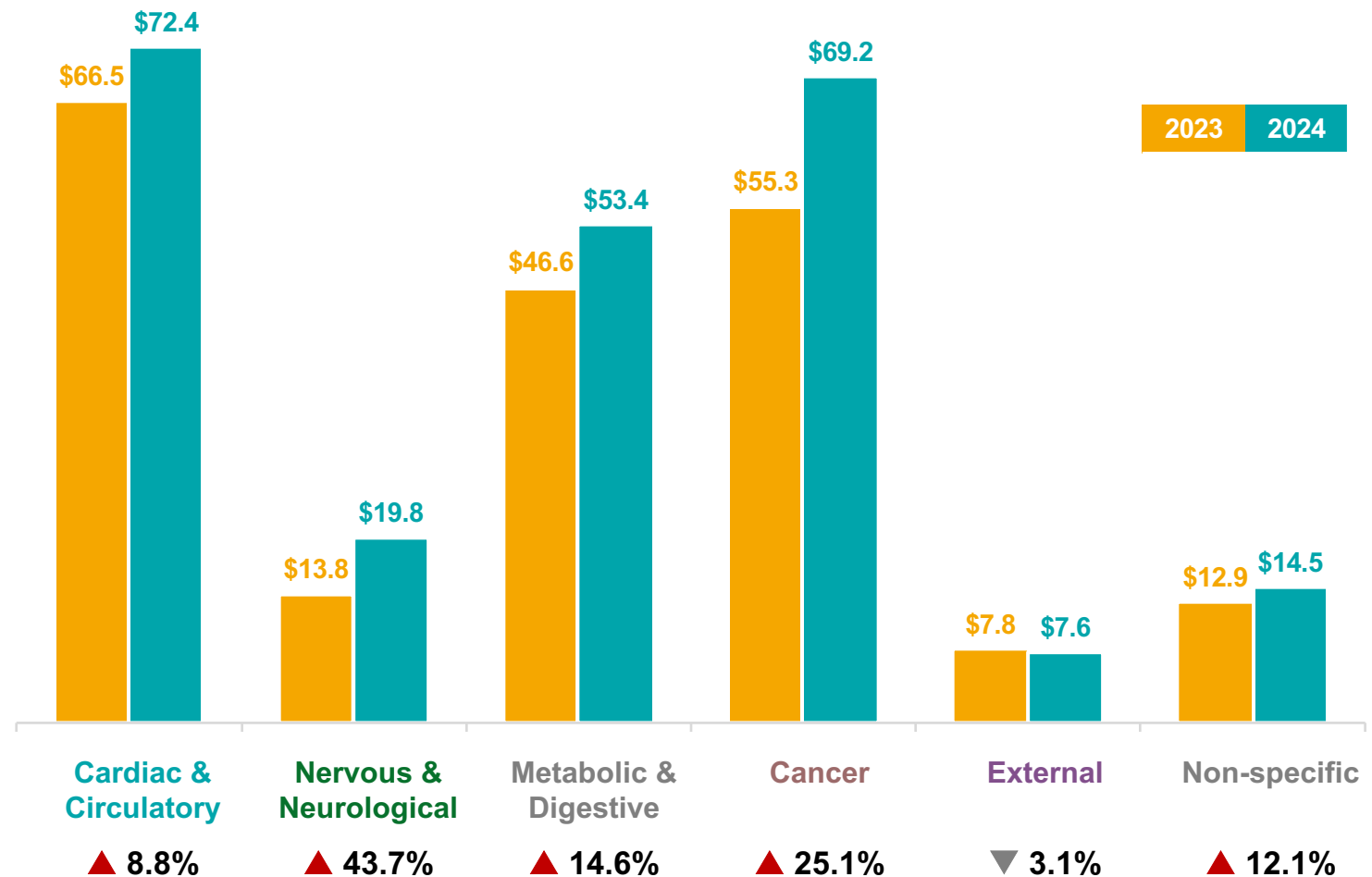
# Medical claims increasing in areas driving mortality

## Professional and Facility

**Total 2024 Claims**  
Including 'Other'

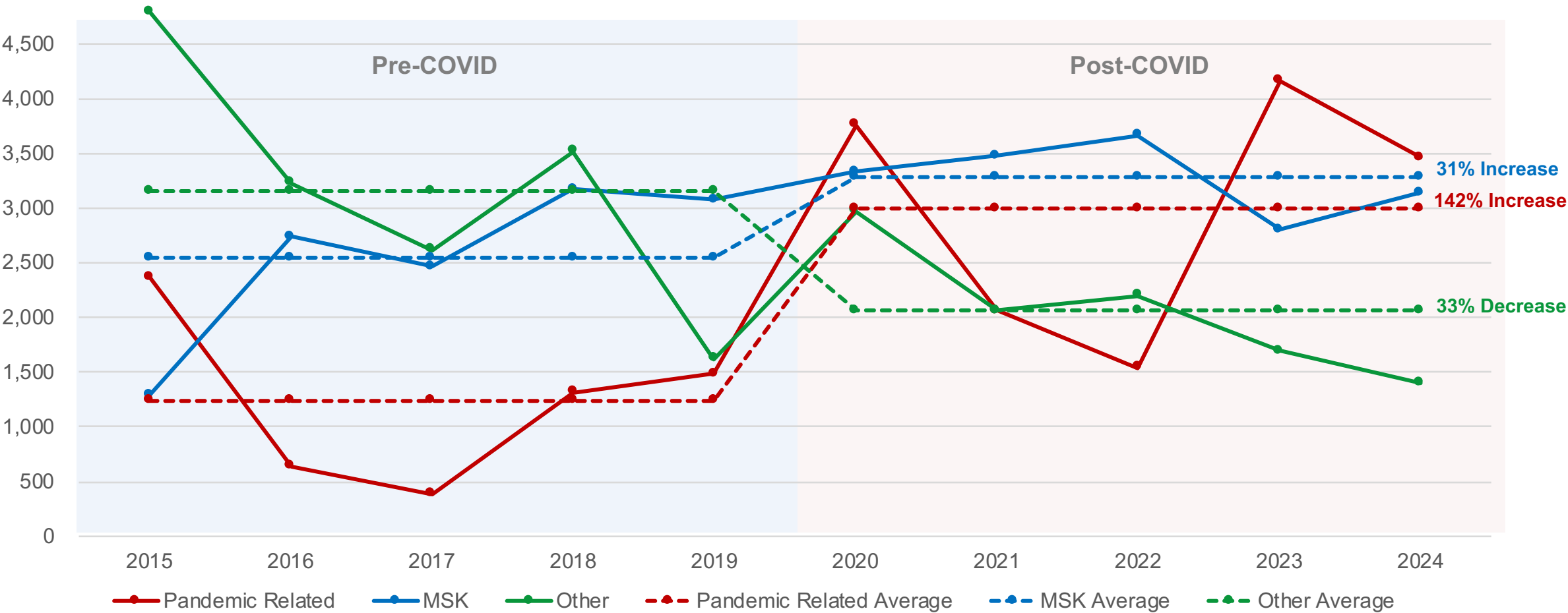


- Other
- Cardiac & Circulatory
- Nervous & Neurological
- Metabolic & Digestive
- Cancer
- External
- Non-specific





# STD Lost Days Related to Pandemic Conditions is Elevated



**MSK is up 29% and Pandemic-Related is up 142%.**





# ICD Group Categories and Percentage Increase in Days / 1,000 2020 to 2024 compared to 2015 to 2019

MSK		Pandemic Related		Other	
Musculoskeletal	0%	Mental/Substance	473%	Pregnancy	-29%
Fractures/Sprains	52%	Tumors	42%	Symptoms	-64%
Back/Spine	46%	Neurological	85%	Genitourinary	-61%
		Circulatory Disease	-7%	Endocrine	29%
		Gastrointestinal	287%	Skin Diseases	-23%
		Infectious Disease	193%	Trauma	-88%
		Respiratory Disease	646%	Oral Disease	18%
		Blood Disorder	N.M.	Breast Disease	-35%
		Eye Disease	1,143%	Congenital Abnormalities	N.M.
				Ear Disorders	N.M.
				Factors Influencing Health	N.M.
				Toxic Exposure	None

ICD Group Categories are ordered based on total lost days per 1,000 over past decade.  
N.M. = Not Measurable, because you can't divide by 0



## Part II

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**At time of crisis...**



**Insurance Collaboration to Save Lives**

*seek answers, save lives, mitigate loss*

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**...insurers are here to help.**



The solution? Insurers can

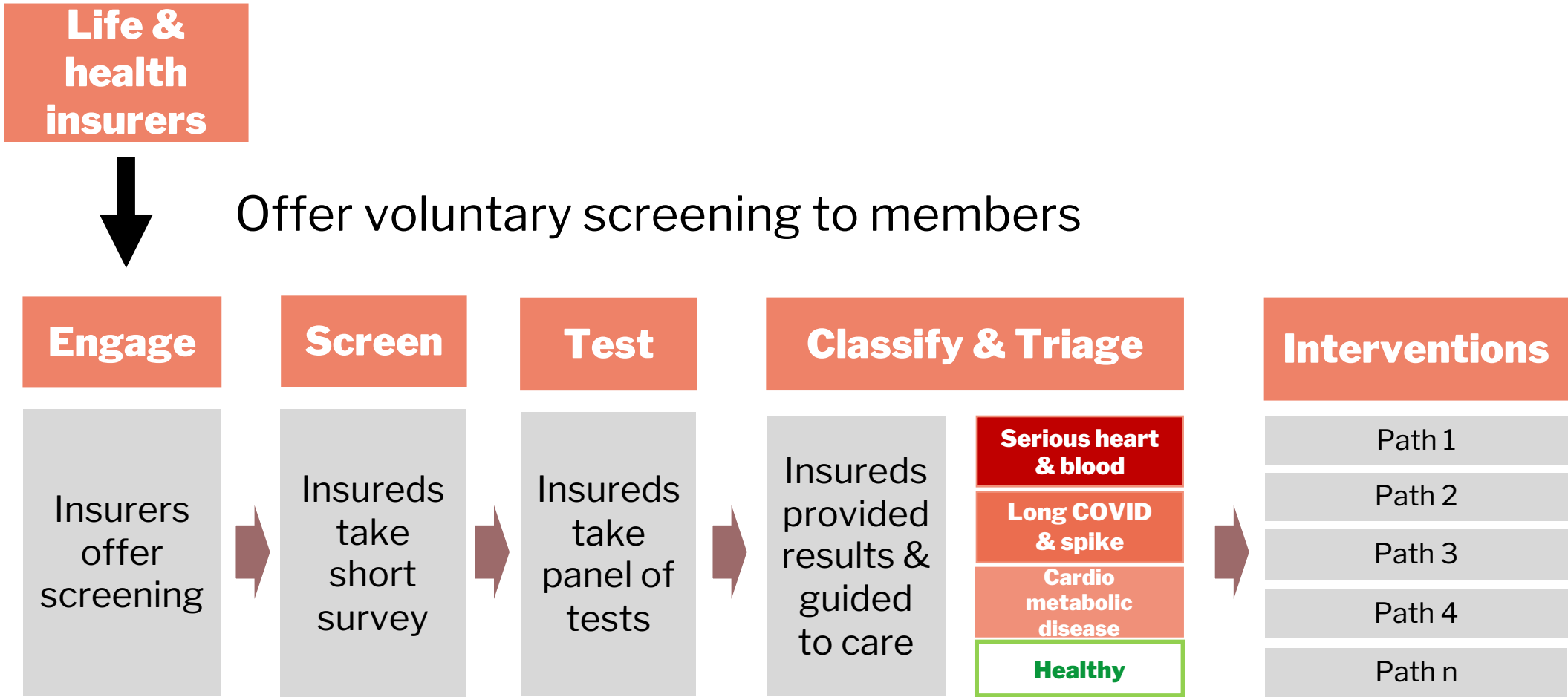
## **Screen, Test, & Triage**

---

***to save money and save lives.***



# Proactive, targeted loss mitigation can be powerful



**Proactive engagement to triage to care or lifestyle change can unlock value**



# Screening ICSL members identified five conditions to target

## Medically addressable cardiac risks

**14% had 3+ markers cardiac or circulatory inflamm. or injury**

This includes hs CRP, d-dimer, troponin, ntprobnp.

This data is consistent with CDC data suggestive of widespread cardiac & circulatory issues

**Identify those at high risk & suggest medical diagnosis & care.**

**NT probnp elevated acm = ~67%<sup>1</sup>**

## Vitamin addressable cardiac risk

**28% had elevated Homocysteine, a heart attack risk factor**

Typically caused by vitamin deficiency (B6, B12, folic acid) and genetic factors

Homocysteine is toxic and significant contributor to heart attacks/stroke risk.

**Identify those who need to take Vitamin B supplement.**

**Homocysteine acm = ~22%<sup>2</sup>**

## Vitamin addressable immune risk

**24% were Vitamin D deficient and 69% were below optimal**

Low levels of Vit. D worsen many immune, heart & other issues.

Most in U.S. need Vitamin D, some races, regions, seasons especially.

**Identify those who need to take Vitamin D supplement.**

**Vitamin D deficient acm = ~17%<sup>3</sup>**

## Lifestyle addressable metabolic disease

**17% had 3+ markers of lifestyle disease**

This includes markers of metabolic issues like TG/HDL, A1C, glucose

Lifestyle diseases need lifestyle solutions, diet, exercise, fasting, etc.

**Provide coaching & apps for diet & lifestyle change.**

**A1C elevated acm = ~20%<sup>3</sup>**

## Biomarkers suggestive of long-COVID, etc.

**28% had extremely high C19 antibodies**

**34% had elevated monocytes**

Elevated monocytes & high ABs may suggest continuing C19 effect.

**Evaluate to as screening & therapeutic guide for long COVID & related.**

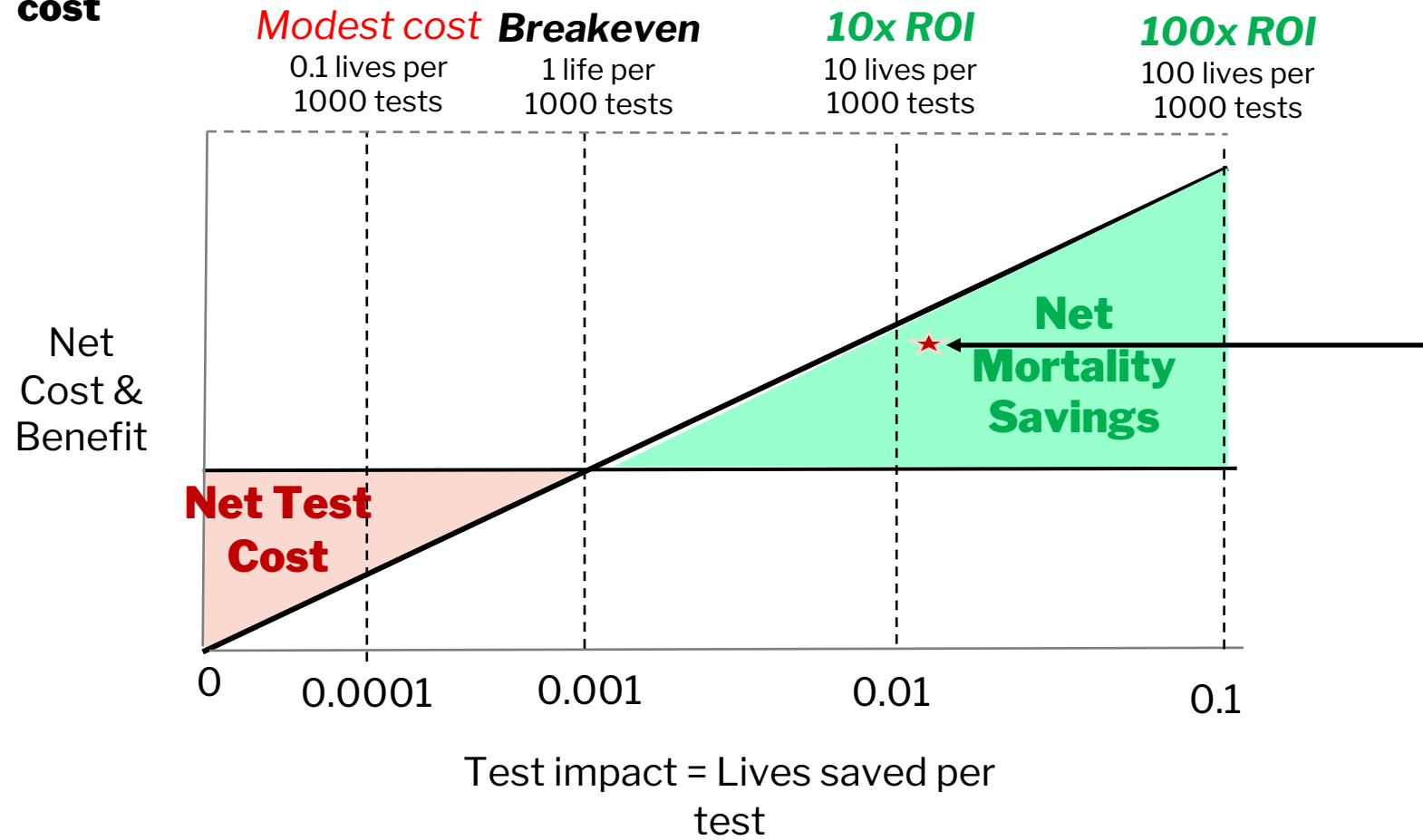
**C19 factors elevated acm = unknown**



# Breakeven analysis for screening is compelling

Sensitivity analysis shows low breakeven and large upside

Net savings sensitivity for **\$200k** term policy and **\$200** test panel cost



Pilot data confirms the opportunity

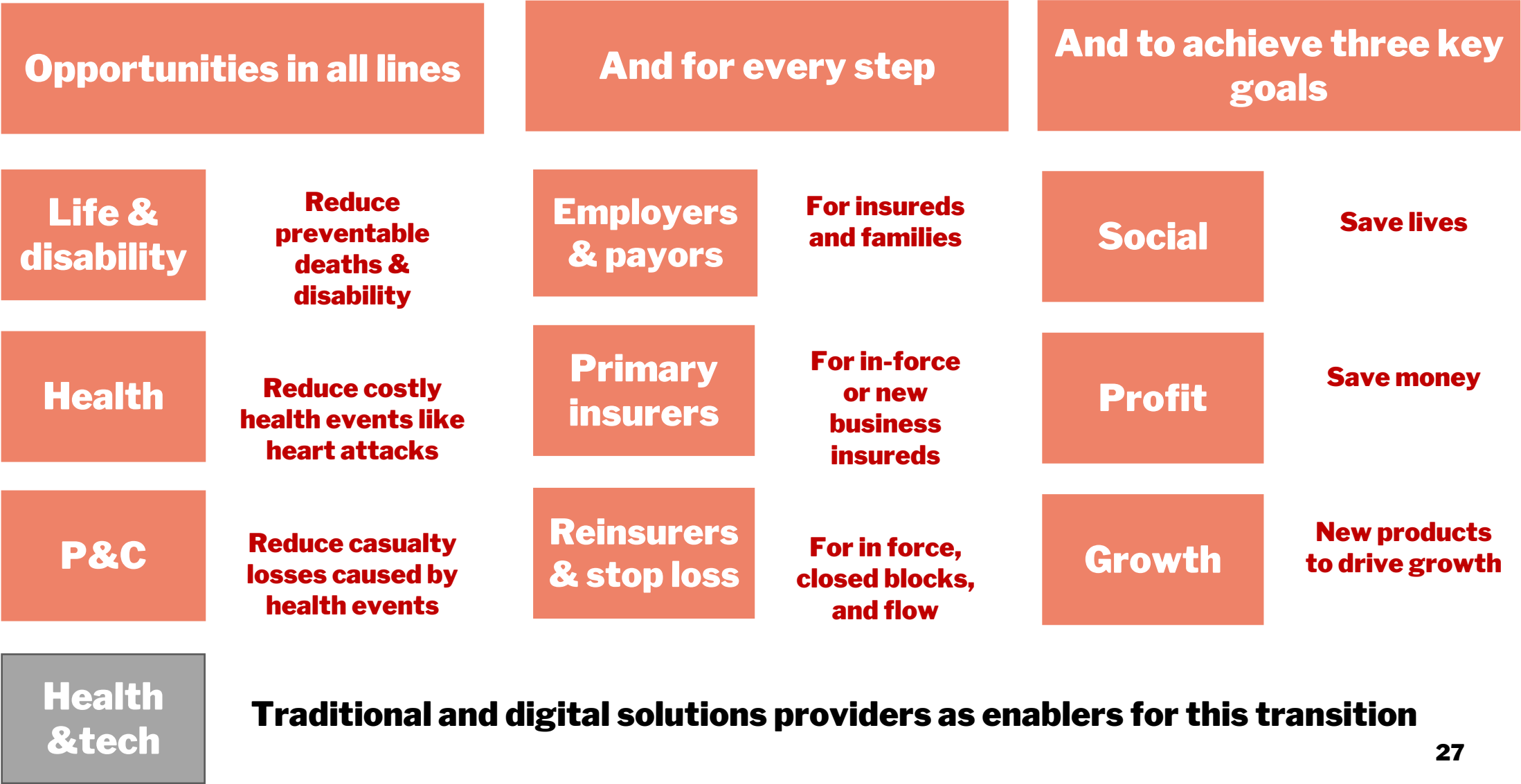
Our pilot found **14% were at high risk as measured by** having 3 or more elevated cardiac & circulatory markers.

If only **10%** of the **14%** can be helped to make changes to avoid a cardiac event...

...then through testing **1000** insureds, insurers can save **14** lives and **\$2.8m** of death benefit, while paying only **\$0.2m** for tests = **a 14x ROI**



# The opportunity to improve health through insurance is vast

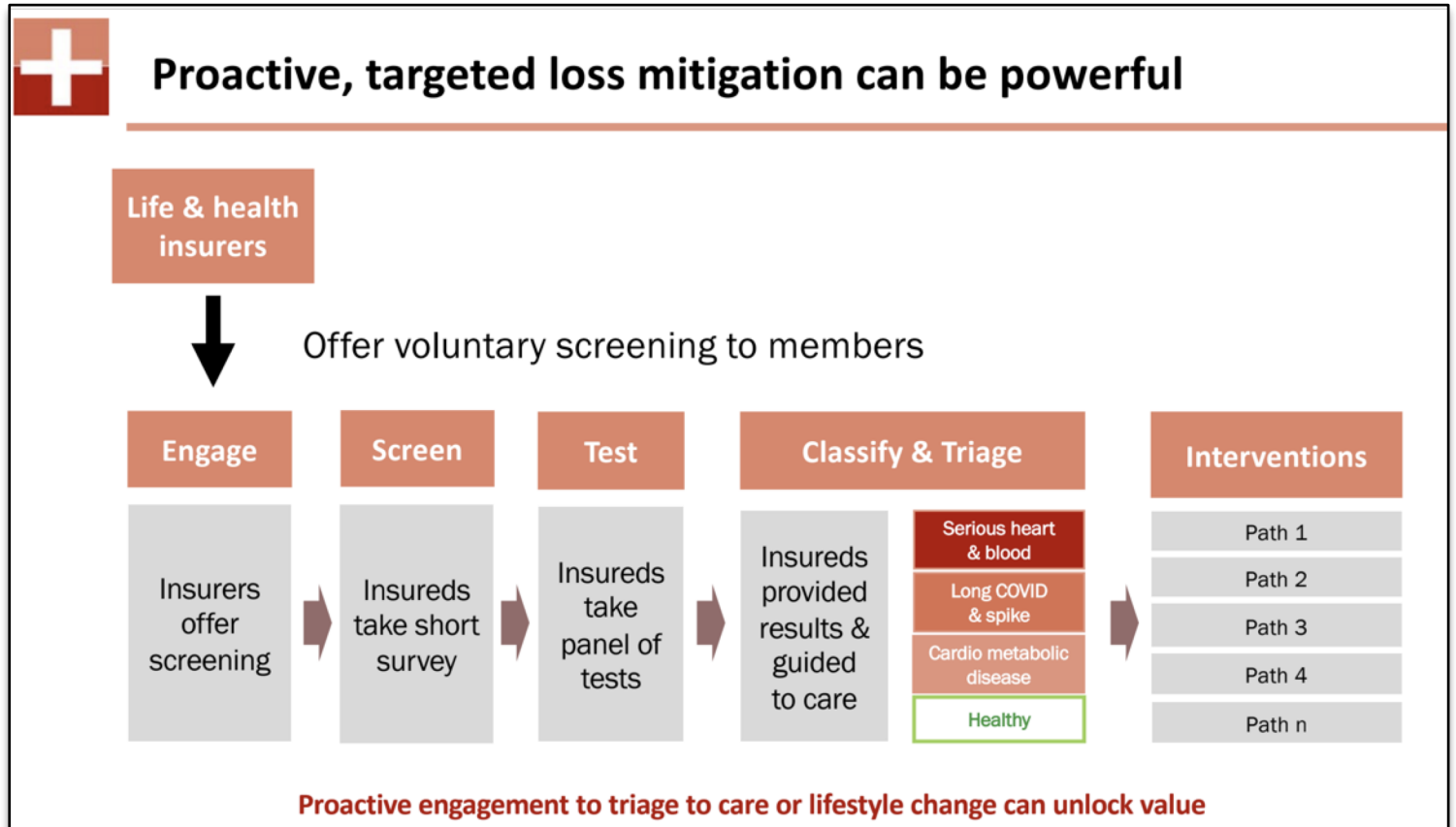




# Proactive efforts will drive substantial non-loss value

**Extending insurers' consumer-focused initiatives to include voluntary in-force blood-testing can:**

- **Boost consumer engagement**
- **Strengthen trust and loyalty**
- **Create personalized value**
- **Expand value by improving health**
- **Meet customers at their need**
- **Help customers age gracefully**
- **Provide agents & employers a caring & compelling consumer-focused sale**
- **All these benefits are in addition to the benefit of reducing the very high cost of poor health**








# ICSL Test Panels

## Metabolic Screen

Biomarker (System)	Cardiac	Comprehensive	Combined	HR
<b>Troponin (CV)</b>	X		X	
<b>D-Dimer (CV)</b>	X		X	<b>1.24</b>
<b>Hs-CRP (CV)</b>	X	X	X	<b>1.31</b>
<b>NT-proBNP (CV)</b>	X	X	X	<b>1.4</b>
<b>Homosysteine (CV)</b>		X	X	<b>1.31</b>
<b>HgbA1C (M)</b>		X	X	<b>1.21</b>
<b>Vitamin D (IS)</b>		X	X	<b>0.80</b>
<b>CEA (IS)</b>		X	X	<b>1.72</b> 
<i>ICSL Discount Price</i>	\$165.75	\$176.60	\$197.89	

Cardiovascular system (CV) = screens for heart and stroke risk

Metabolic system (M) = screens for early diabetes

Immune system (IS) = screens for ability to fight foreign invaders like bacteria and viruses and internal "Invaders" like cancer

Hazard Ratio (HR) = 1.00 is neutral, higher ratios indicate higher mortality

ICSL does not collect revenue from Uta Labs for any of these tests. Pricing as of 14 Feb. 2025



# Test panels available on ICSL website


10:30 LTE 83%



Insurance  
Collaboration  
to Save Lives


*seek answers, save lives,  
mitigate loss*

Click To Help

 Josh Stirling Interview...

AA collaborationtosavelives.org

10:30 LTE 82%



**The Solution**


*"Instead of cursing the  
darkness, light a candle."  
-Benjamin Franklin*

**Health  
Screenings**

- Many people have undetected health issues
- These include immune, heart, and metabolic problems
- Testing can identify these
- Our comprehensive panel tests six biomarkers for an affordable cost, which often can be reimbursed

insurancecollaborationtosavelives.org

10:32 LTE 82%



Panels Used by ICSL

**Cardiac**


- Troponin
- D-Dimer
- hs-CRP
- NT-proBNP

**Comprehensive**

- hs-CRP
- NT-proBNP
- Homocysteine
- HgbA1C
- Vitamin D
- CEA

AA collaborationtosavelives.org

10:32 LTE 82%



**Get Tested**

First Name\*

Last Name\*

Email\*

Phone Number

Job Title

Company

☐ Are you a leader concerned about the health of your team and want more information on how you may support them? Click here and we will reach out to you.

☐ ICSL is not a licensed medical provider and does not provide medical services, nor does a relationship with ICSL create any sort of doctor-patient relationship. Consistent with its mission, ICSL promotes actions to improve health and to identify and mitigate causes of excess mortality and morbidity.

AA collaborationtosavelives.org



# ICSL ForwardLiving Hub - Powered by GoMo Health.

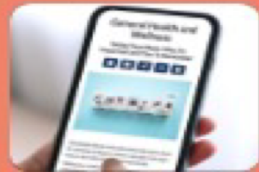
Personal Concierge

*Automated Engagement System*



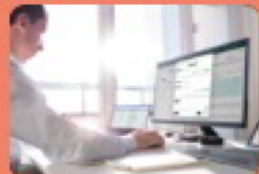
Care Companion

*Digital Resource Library &  
Learning Management System*



GoMo Chat

*Secure Messaging Platform  
for Real-Time Communication*



Program Engagement  
and KPI Reporting Portal

*24/7 Access to Data & Analytics*



**31,649,605**

Member/Employee  
encounters



**348,554**

Escalations for early  
intervention



**\$330M<sup>+</sup>**

Saved



**1000's**

Of lives saved





# There is broad momentum behind this industry effort

January 2026



## Nonprofit Group Looks To Achieve a Lofty Goal: Saving a Million Lives

**Effecting Change:** Insurance Collaboration to Save Lives, a group of industry figures working to lower morbidity and mortality across society, aims to save 1 million people through greater testing and increased engagement.

February 2025



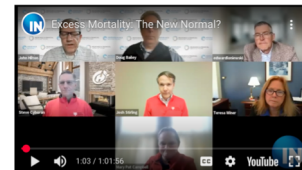
## While U.S. mortality spike is normalizing, 5 troubling trends continue

The alarming spike in U.S. mortality rates post-COVID, which vexed scientists and affected life insurance earnings, appears to be normalizing, according to the latest health statistics. Yet, the

May 2024



## Excess Mortality recedes, but remains above normal



December 2023



## Greater Health Screenings Could Save Life Insurers Money and Improve Mortality, Group Says

A nonprofit formed by industry executives is proposing insurers test policyholders for a battery of common causes of morbidity.

For links to these and others, please see:

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



# To learn more, reach out to any of the Collaboration's leaders

## Directors & Officers



**Richard H. Watts**, Board member at Farmers Group, Inc., Apaly Health and Roost, advisor to numerous PE & VC backed ventures, and former President of Direct Group at Progressive Insurance.



**Michael Grasher**, EVP & CFO at The Fortegra Group, specialty multi-line insurer, former CFO at publicly traded work comp company, previously a Managing Director and multi-line insurance analyst at Piper Jaffray.



**Bret Swanson**, Chairman of the Indiana Public Retirement System (INPRS), President of Entropy Economics, LLC, and non-resident senior fellow at the American Enterprise Institute.



**Teresa R. Winer, F.S.A., M.A.A.A.** L&H Actuary for the State of Georgia's Commissioner of Insurance, member of AAA's NGE Working Group, former VP & two-term SOA board member and GSU RMF board



**Noelle H. Sproul, Esq.** ICSL Corp Secretary, investment lawyer, former Managing Director in the legal department of a large insurance company, and previously, an attorney at Moore & Van Allen.



**Josh Stirling**, Founder of the Insurance Collaboration to Save Lives, Insurtech advisor/director & chief insurance & partnerships officer, former managing director and *Institutional Investor* #1 ranked Wall Street insurance analyst



**Mitch Bagley**, ICSL Board Member, marketing and communications team lead, former P&C commercial broker

## Team Leaders

### Medical & Product

- **Steve Cyboran**, ASA, FCA
- **Edward Loniewski**, DO, FACOS, FAOAO
- **Tom Lewis**, Ph.D.
- **Kate Hendricks**, M.D. M.P.H.
- **Steven Dunlap**, MD

### Analytics & Research

- **Mary Pat Campbell**, FSA
- **Valerie Chezem**, ASA
- **Patrick Dooley**, analyst
- **JR Reyling**, MBA, E.E.
- **Greg Henke**, FSA, MBA
- **Robert Wright**, PhD.

### Marketing & Comm

- **Marci Sheeran**, CLTC, LUTCF
- **Rebecca Richey**, agent
- **Bryan Barber**, technology

### International

- **Adam Chambers**, Esq.



## A final thought

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**Insurers who lead,  
can save money,  
and will save lives.**



# Join us on this journey.

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Learn more

**Reach out**

**Help us save lives.**

**Find us**

[youtube.com/@InsuranceCollaboration](https://www.youtube.com/@InsuranceCollaboration)

[LinkedIn/Insurance Collaboration to Save Lives](#)

[www.insurancecollaboration.org](http://www.insurancecollaboration.org)

**Reach out**

**Mitch Bagley**

**Board Member**

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