



Mortality for the Life Insurance Industry in 2021

(April 11, 2022)

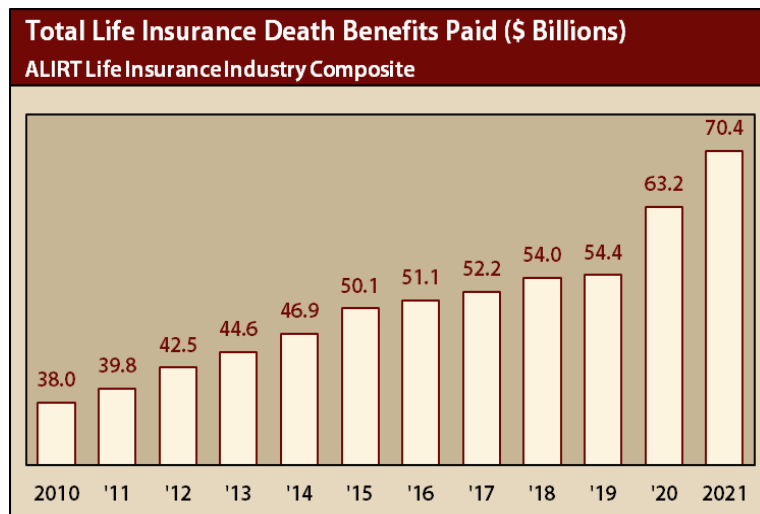
The emergence of the Covid-19 pandemic in early 2020 contributed to record levels of mortality for the U.S. life insurance industry. Direct deaths due to Covid infections and complications played a significant role, especially given the newness of the virus, the lack of Covid-19 vaccines until early 2021, and therapeutics and other treatments that were either non-existent or of limited effectiveness. In addition, indirect effects of the Covid pandemic and response, especially government edicts limiting economic activities and social gatherings, a reduction in “normal” medical screenings and appointments, and isolation for many individuals contributed to the increase in deaths across the U.S. population.

The increase in mortality led to a significant increase in death benefits paid for both individual life and group life insurance, which contributed to the aggregate operating losses incurred for individual life business lines in 2020, and near break-even group life operating performance. However, the negative effects from the elevated mortality in 2020, though noticeable, did not have a material negative effect on industry capitalization, solvency, or financial performance. In fact, the sharp decline in interest rates in 2020 was an even greater impact on life industry earnings (both total earnings and earnings for just the individual life insurance business line), as the worsening interest rate environment continued to put pressure on the profitability of existing blocks of guaranteed universal life insurance, as the rate guarantees for many products exceed current investment returns.

There was hope that the higher mortality would abate into 2021, as vaccines became available early in the year and immunity increased across the population. Unfortunately, mortality across the U.S. population was notably higher in 2021 than the already elevated levels in 2020, and this translated to higher death benefits paid for the U.S. life insurance industry.

In this review we highlight the increase in mortality and its effects on the U.S. life insurance industry. As mentioned above, the higher level of U.S. population deaths is not entirely due to Covid-19; however, from the standpoint of the insurer’s financial profile a death from any cause to an insured person has the same effect.

Mortality in 2021



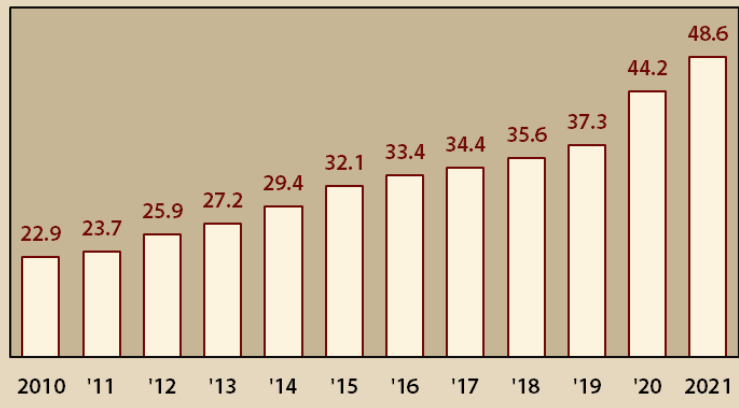
The accompanying table shows total death benefits paid for the ALIRT Life Industry Composite¹ for the last 12 years.

Total death benefits paid rose another \$7.2 billion in 2021, which followed an \$8.8 billion increase in 2020. Though the rate of increase slowed to 11.4% in 2021 (from 16.2% in 2020), the increase in 2021 was still very high by historical standards and reflected the continued elevated mortality for the U.S. population (both the total population and those with life insurance).

¹ The ALIRT Life Composite consists of 100 of the largest U.S. Life insurers (=88% of 2021 industry general account invested assets).

Death Benefits Paid for Individual Life Insurance (\$ Billions)

ALIRT Life Insurance Industry Composite



As was the case in 2020, the higher mortality affected both individual life insurance and group life insurance, as exhibited in the tables on this page. However, the effects for individual and group life insurance were somewhat different in 2021 as compared to 2020.

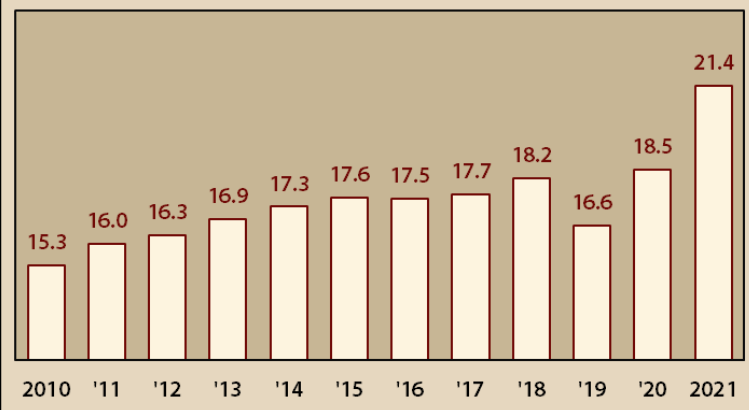
The rate of increase in death benefits paid for individual life insurance eased to 10.0% in 2021 from 18.5% in 2020, and though this was still higher than most years, it was not too much above the 9% annual increases in 2012 and 2015.

With that said, death benefits paid for individual life insurance as a percent of total in force rose to a historical high of 0.45% in 2021, up from 0.42% in 2020 (see chart on the next page). This measure increased consistently (though slowly) over the past 15 years, which was a result in part of the aging population of individual life insurance policyholders. This ratio was also affected by low sales levels for new life insurance over the last decade, and high persistency of existing contracts given the relative attractiveness of in-force products as compared to new industry offerings, and the rise of the life settlement industry.

In contrast to the slower increase in individual life insurance death benefits paid in 2021, trends in group life insurance worsened as death benefits paid rose 15.6% in 2021, up from a still sizable 11.6% increase in 2020. In addition, group life death benefits paid rose sharply in 2021 to a record high 0.24% of total group life insurance in force.

Death Benefits Paid for Group Life Insurance (\$ Mlns)

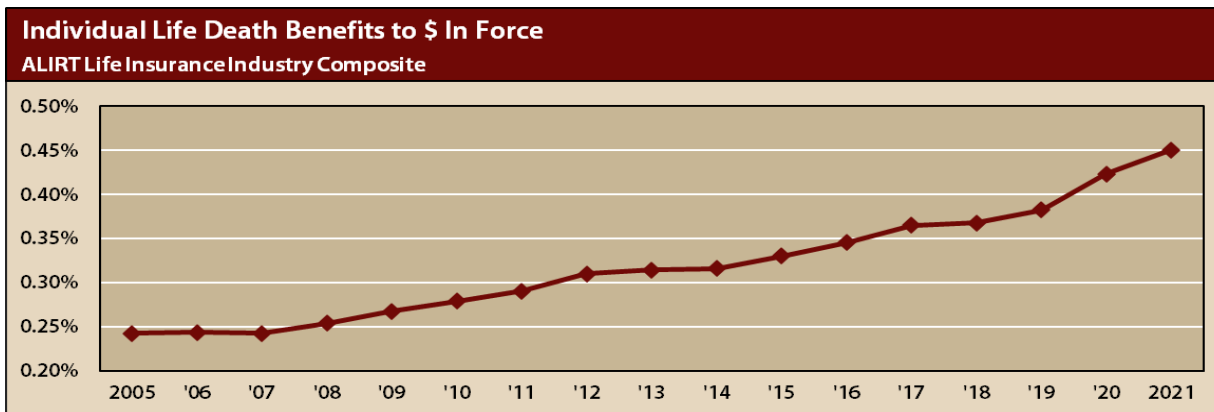
ALIRT Life Insurance Industry Composite



The higher death benefits paid in 2021 for the industry as a whole and for both individual life insurance and group life insurance reflected mortality that was broad based across multiple age groups and demographics. It also encompassed the peak in aggregate deaths reached in early 2021, as well as a secondary peak in the summer and autumn of 2021 that constituted the emergence of the “delta” variant. However, mortality as a whole in 2021 had a greater impact on younger populations than was the case in 2020, and younger individuals are more likely to participate in group life

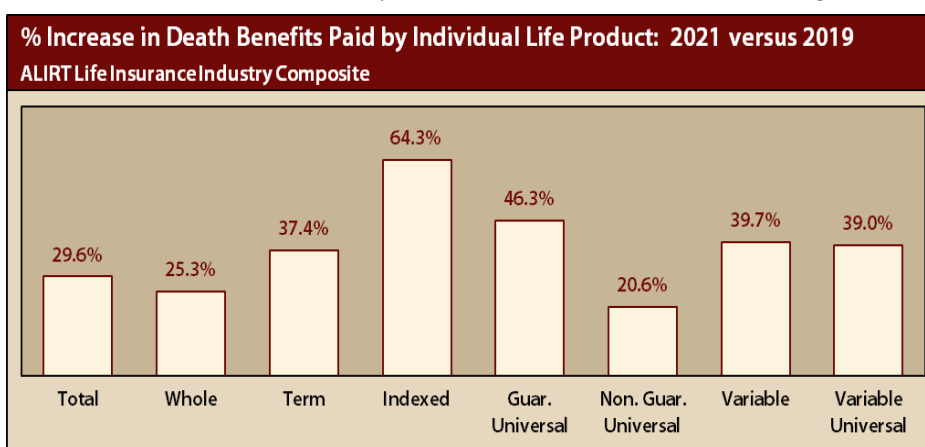
insurance offered through their employers (or unions or other associations). Indeed, in the second half of 2021 and early 2022 some issuers of group life insurance cited the high level of mortality among participants in group life insurance.

In addition, younger individuals are less likely to have individual life insurance, and those that have individual life insurance often do not have especially high face amounts, as large face amount life insurance is often utilized by wealthy and/or often older individuals for estate planning purposes, and/or to provide spouses, children, or grandchildren with bequests.



Product Line Breakdown

The accompanying chart provides the percent change in death benefits paid in 2021 versus 2019 (pre-Covid), and each product line incurred a considerable increase. The rapid growth in indexed life insurance over the last several years leads to that business line being somewhat of an outlier, given the rather low base of indexed life insurance in force in 2019.



Group life insurance is less diversified by product type, as over 72% of total 2021 net group life insurance premiums were in term life products. This is not surprising when considering the basic death protection that is

the core of most group life contracts. Total death benefits paid under group life insurance contracts rose 15.6% in 2021, while death benefits paid under group term life coverages rose 18.0% (the rate of increase eased sharply for group whole life and group universal life coverages).

Earnings Impact

Individual Life

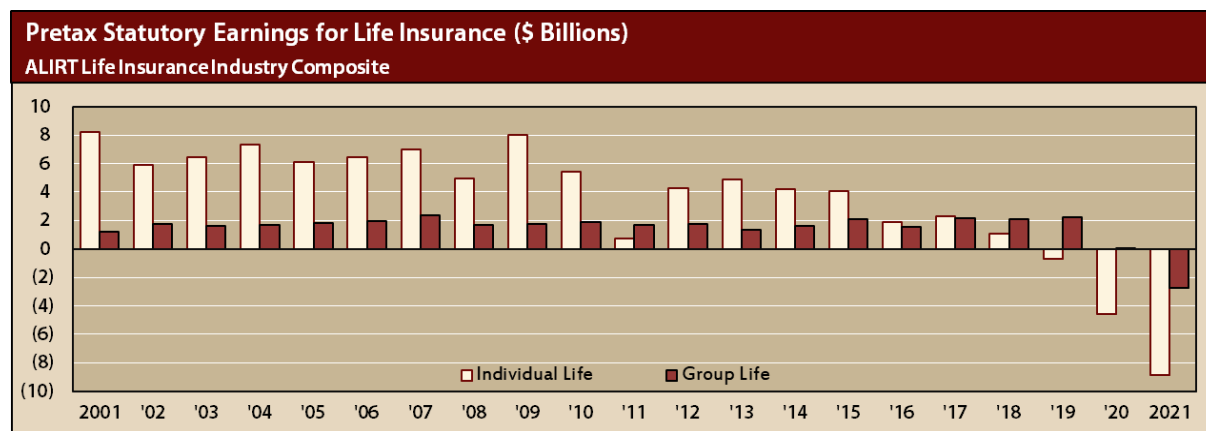
The table below shows the development of pretax statutory earnings by product line for individual life insurance over the last three years 2019-2021. Operating performance weakened for almost every individual life insurance product in 2020-2021, with some variation in impacts between 2020 and 2021.

INDIVIDUAL LIFE INSURANCE: Pretax Earnings by Business Line (\$ Mns.)
ALIRT Life Insurance Industry Composite

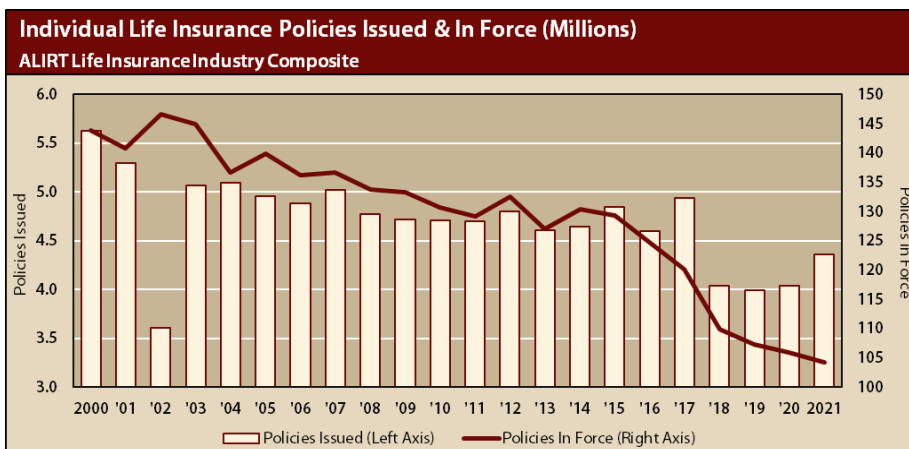
Year	Total	Whole	Universal Life		Indexed	Term	Variable	Variable	
			w/Guar.	w/o Guar.				Universal	Other
2019	(707.5)	745.5	(2,166.1)	488.0	(1,354.4)	364.7	1,004.1	644.6	(433.9)
2020	(4,563.1)	514.3	(6,818.4)	3,477.3	(2,033.2)	(579.6)	503.5	135.5	237.5
2021	(8,870.3)	(865.1)	(3,723.9)	(1,757.5)	(2,204.1)	(1,100.7)	(15.5)	(75.3)	871.8

A material portion of the worsening operating performance for individual life insurance for the last two years was the higher mortality (whether Covid-19 related or not). However, as guaranteed universal life insurance was one of the most affected product lines, there are other factors that are impacting operating performance for individual life insurance.

The table below shows pretax statutory accounting earnings for individual life and group life insurance over the last 21 years and shows the long-term decline in individual life insurance operating performance. Annual operating earnings exceeded \$6 billion for the ALIRT Life Composite for most of the 20-00s and exceeded \$4 billion as recently as 2015. The protracted decline in interest rates depressed insurer investment income, which affected investing the proceeds from renewal premiums and maturing assets. In addition, interest rates promised with guaranteed universal life products often exceed current investment yields and lead to the need for higher policy reserves, which can reduce earnings. The longer ago the policy contract was issued, the more pronounced this effect. Finally, the aging of the industry's life insurance policy contracts (and policyholders) also contributes to the need for higher policy reserves.



For guaranteed universal life, the insurer does not have a great deal of options to improve profitability. In some cases, the insurer may be able to increase the cost of insurance to its policyholders, but often an increase is permitted only for mortality fluctuations and not for lower interest rates or investment yield. Any attempt to increase COIs could also lead to litigation and/or dislocation in distribution/sales efforts.

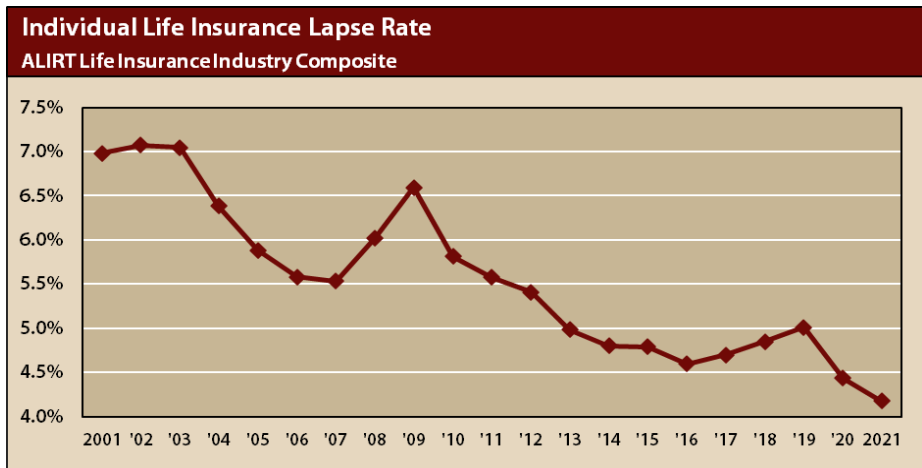


To a certain degree these trends also impact participating whole life insurance, but insurers that issue(d) whole life can adjust policyholder dividends in response to the performance of the block of business, which includes investment returns. That said, mutual companies may be reluctant to do so for

marketing and future sales reasons and opt instead to keep dividends at elevated levels given their generally stronger capital positions. Nevertheless, virtually all major U.S. life insurers significantly reduced their aggregate policyholder dividends at least once if not more often in the years following the financial crisis, owing to reduced investment returns.

As mentioned earlier, another factor reducing profitability for individual life insurance has been tepid new policy issuance for many years. As shown in the accompanying chart, the total number of individual life insurance policies in force for the ALIRT Life Composite has been in steady decline from a 21st

century peak of over 146 million in 2002 to 104 million in 2021. Given low sales of individual life insurance, the mix of policies now skews somewhat older in terms of the insured population, and mortality rates relative to the face amount in force have crept higher over the last 15 years. However, individual life insurance policies issued increased 8% in 2021 to 4.4 million, which was a four-year high and reflected the strongest annual growth in individual life insurance premiums in at least the last two decades.



Finally, the lapse rate for individual life insurance policies has trended lower for over a generation and reached a new historical low of 4.2% in 2021. As many of these policies were issued in a much different interest rate environment, the economics of this business is not especially favorable for

the insurer and has contributed greatly to the reduction in profitability for individual life insurance. The growth in the life settlement market over this period also contributed to this trend.

Group Life

Group life insurance earnings exhibited much less in the way of a decline than individual life insurance for most the last 20 years, and thus the near break-even operating results in 2020 stood out in stark contrast to both recent and past years’ performance. As mortality experience worsened significantly in 2021 from the already historically high level of 2020, group life operating performance deteriorated sharply once again, and incurred a \$2.8 billion pretax operating loss in 2021.

GROUP LIFE INSURANCE: Pretax Earnings by Business Line (\$ Mns.)							
ALIRT Life Insurance Industry Composite							
Year	Total	Term	Whole	Universal	Variable	Variable Universal	Other
2019	2,194.1	1,130.3	419.7	175.0	164.9	147.5	156.7
2020	14.4	(537.4)	(3.1)	301.8	49.2	186.0	17.9
2021	(2,766.6)	(3,224.0)	(23.1)	163.2	115.3	216.3	(14.3)

Group life contracts can typically be repriced every year, and indeed some group life insurers have done this at various points, as a result in part of rising deaths owing to suicides, alcohol and drug abuse, and other causes that have been observed over at least the last five years. It remains to be seen how much group life pricing may increase in response to the sharply higher mortality of the last two years. Though there is no doubt that at least some of the higher mortality relates directly or indirectly to Covid-19, other causes are also at play, especially considering the increase in mortality in 2021 despite the arrival of Covid-19 vaccines and increased population immunity. The combination of societal ills (suicide, substance abuse, isolation) as well as missed medical appointments and screenings over the last two years could continue to boost mortality levels even if Covid-19 deaths continue to wane. This could lead to a longer period of price increases from group life insurance.

This could be offset by group life customers seeking other insurance providers, reduce benefits offered, or eliminate the benefit altogether. However, demand for group life coverage could increase on the part of employees, which could lead to higher sales and perhaps improved insurer profitability (especially if the high mortality of 2020 and 2021 eases at least somewhat).

Life Insurance Operating Performance in Context

Operating performance in individual life insurance has deteriorated for some time, and group life insurance experienced the worst year in decades in 2021. However, though these are certainly not positive trends, it is important to view the operating results in life insurance with the appropriate context.

Reserve Release Offsets

Though death benefits rose sharply for individual and group life insurance in 2020 and 2021, the ultimate impact on life industry profitability and capitalization is substantially less than the total death benefits paid. First, when an insured passes away, the insurance company can release a portion of its policy reserves that relate to that specific insurer's contract.

For 2020 and 2021, the increase in aggregate death benefits paid of \$18.2 billion over 2019 levels were offset by reserve releases related to deaths of \$6.9 billion. For group life insurance, the \$6.7 billion increase in death benefits paid in for 2020 and 2021 over 2019 levels was offset by \$1.5 billion of reserve releases related to deaths of group life insureds.

Repricing Group Policies

As mentioned earlier insurers can generally reprice group life insurance annually, which could lead to improved profitability in this business line in 2022 and future years.

Other Product Offsets

The higher incidence of all-cause mortality for the U.S. population led to somewhat improved performance in traditional long-term care insurance, either as residents of long-term care facilities passed on, and/or a greater reticence on the part of insureds to enter traditional long-term care (or related) facilities. The ALIRT Life Composite posted pretax earnings of \$1.7 billion in 2020 and \$1.6 billion in 2021, a reversal from operating losses of \$579 million in 2019. Earnings for Medicare supplement and dental insurance also showed improvement in 2020 and remained above 2019 levels in 2021, which may reflect delayed medical and dental care given governmental edicts limiting activities, and insureds' self-imposed decisions.

Taxes

A reduction in pretax earnings (and/or wider pretax operating losses) can reduce tax liabilities, and as a result the ultimate impact to the insurer's capitalization and operating performance may decline from pretax levels. However, tax liabilities are also affected by timing mismatches, as well as differences between the statutory accounting rules that govern the regulatory financial statement and accounting for tax purposes. For 2021, ALIRT Life Composite operating losses widened \$4.2 billion pretax, but "only" \$1.2 billion after taxes, and group life operating performance worsened by \$2.8 billion before taxes and "only" \$2.0 billion after taxes.

Losses in Relation to Surplus

Pretax operating losses of \$8.8 billion for individual life insurance and \$2.8 billion for group life insurance for the ALIRT Life Composite in 2021 were offset by strong earnings from other business lines, and the industry composite reported total statutory pretax earnings that exceeded \$46 billion for the year. This was up from \$31 billion in 2020 and helped to produce a 12% increase in total surplus in 2021.

In addition, though the effect on life industry financial performance from the higher mortality of the last two years was noticeable, it does/did not have a substantial or material effect on industry solvency or capitalization. In addition, the reduction in total industry earnings was significantly less than what occurred in other years from changes in stock market returns, interest rates, and/or investment impairments and losses.

However, the reduction in earnings (more from the long duration decline in interest rates than the elevated mortality the last two years) could contribute further to the continuing rationalization of businesses by many insurers and organizations, which has been ongoing for over the last decade. These trends are not limited to the life insurance business (they also include annuities and other industry businesses) and include product changes, the exit from certain business lines or the entire industry for some insurers, and the sales of blocks of businesses and/or entire insurance companies.

Offsetting this somewhat is the substantial increase in demand for protection products in 2021, as direct and net individual life premiums each rose 9% for the ALIRT Life Composite in 2021, while first year individual life insurance premiums rose 25%. This was by far the largest annual increase in premiums for individual life insurance in quite a while, and if this continues it could lead to increased optimism on the part of insurers offering such products.

Conclusion

The U.S. life insurance industry experienced a significant rise in mortality in both 2020 and 2021, as death benefits for the ALIRT Life Composite paid rose 16% in 2020 and 11% in 2021. The higher death benefits led to wider operating losses incurred for individual life insurance, as the increased mortality combined with the higher required policy reserves for guaranteed universal life insurance due to the multi-decade decline in interest rates. Group life insurance also incurred operating losses, a reversal from near break-even results in 2020 and solid earnings on an annual basis for most of preceding 20 years.

However, the worsening life insurance operating performance was offset by strong earnings in annuity and health insurance lines, and total earnings rose almost 50% in 2021 from 2020 levels. This led to a 12% increase in total surplus, which helped boost capitalization measures.

With that said, mortality experience was worse in 2021 than in 2020, despite the arrival of Covid-19 vaccines. It remains to be seen when mortality begins to ease from current levels, as effects could continue that relate to missed or delayed “routine” health screenings over the last two years, still high levels of “deaths of despair” owing to substance abuse, loneliness, or suicides, and/or other factors. If deaths remain above 2019 levels, it could lead to increased pricing for individual and group life insurance, additional changes in product availability and terms and conditions, and/or continued strong demand for individual life insurance products as was the case in 2021.

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