



LIMRA, Reinsurance Group of America (RGA), the Society of Actuaries (SOA) Research Institute, and TAI have collaborated on an ongoing effort to analyze the impact of COVID-19 on the individual life insurance industry's mortality experience and share the emerging results with the insurance industry and the public. The Individual Life COVID-19 Project Work Group (Work Group) was formed as a collaboration of LIMRA, RGA, the SOA Research Institute, and TAI to design, implement, and create the study and to produce and distribute a variety of analyses.

This report is the latest public release from this collaboration and contains the results of the study of excess mortality for individual life insurance to include the first quarter of 2022. Data from 29 companies representing approximately 69% of the industry face amount in force have been included in the analysis in this report. A total of 2.7 million death claims from 2015 through March 31, 2022 make up the basis of the analysis.

Highlights of 1st quarter 2022 actual to expected relative mortality ratios (A/E):

- Across all fully underwritten policies, the first quarter 2022 A/E's (110%) was lower than both the fourth quarter 2021 A/E's (112%) and first quarter 2021 A/E's (115%)
- A/E's **remained similar or decreased slightly** at older ages going from Delta to Omicron (fourth quarter 2021 to first quarter 2022) and **decreased** for younger ages.
 - Even so, the A/E's for younger ages remained higher than for older ages in the first quarter of 2022, with the highest A/E for ages 45-64
- Regional differences continued in the insured population, but to a lesser extent than prior quarters
 - Smokers continue to perform better against their expectation than non-smokers against their expectation
- Smokers still have far worse mortality, as is obvious when using the population basis instead of VBT15
- Similar to smokers and non-smokers, preferred A/E's continued their trend of coming in worse than standard A/E's
 - Standard policies still have far worse mortality than preferred policies

Other Information

A list of companies whose data was included in this work can be found in the Information tab.

Additionally, this report includes a comparison of the mortality impact of COVID-19 on insured lives versus the general population.

Please see the Information tab and the hover box indicators in each of the tabs for more detail on the methodology and analysis approaches.

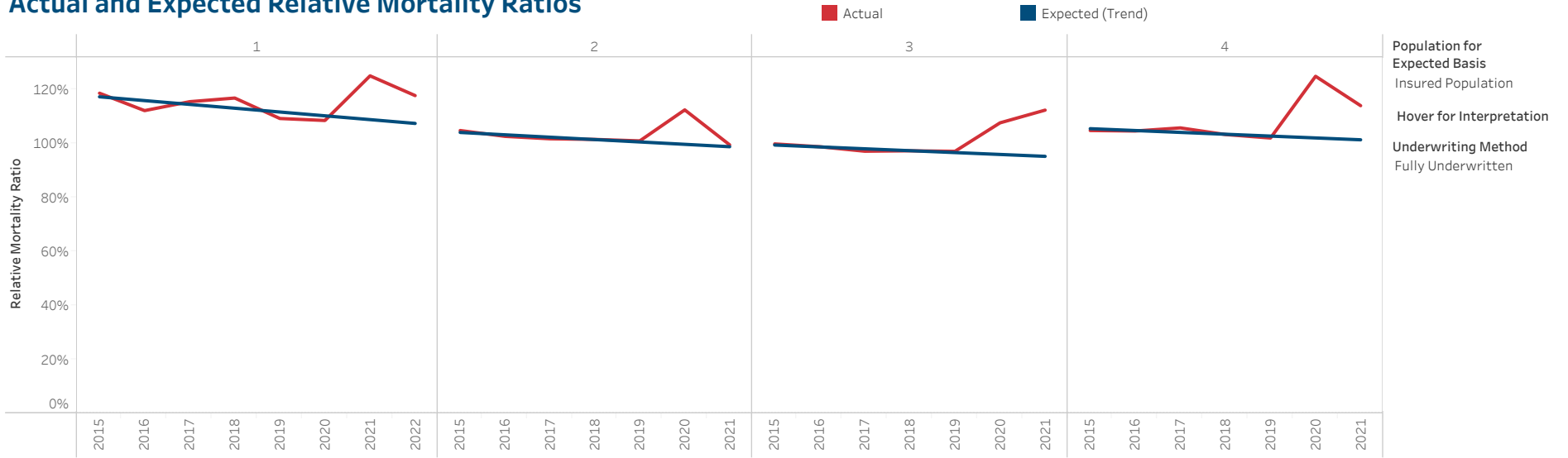
This dashboard provides the user the ability to interact with data from the report.

For questions regarding the dashboard please contact:

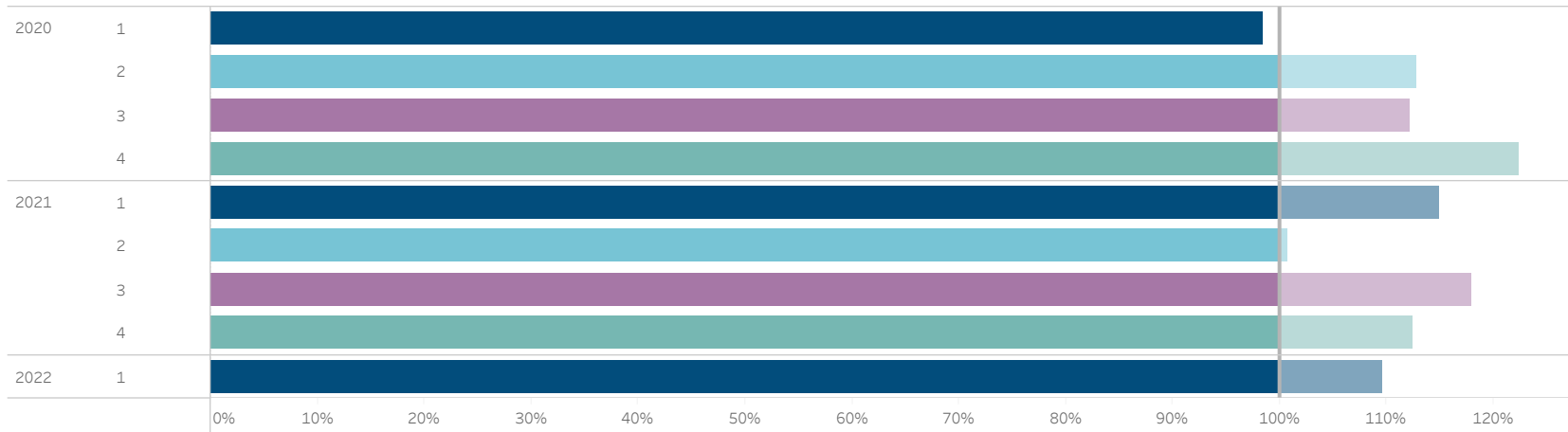
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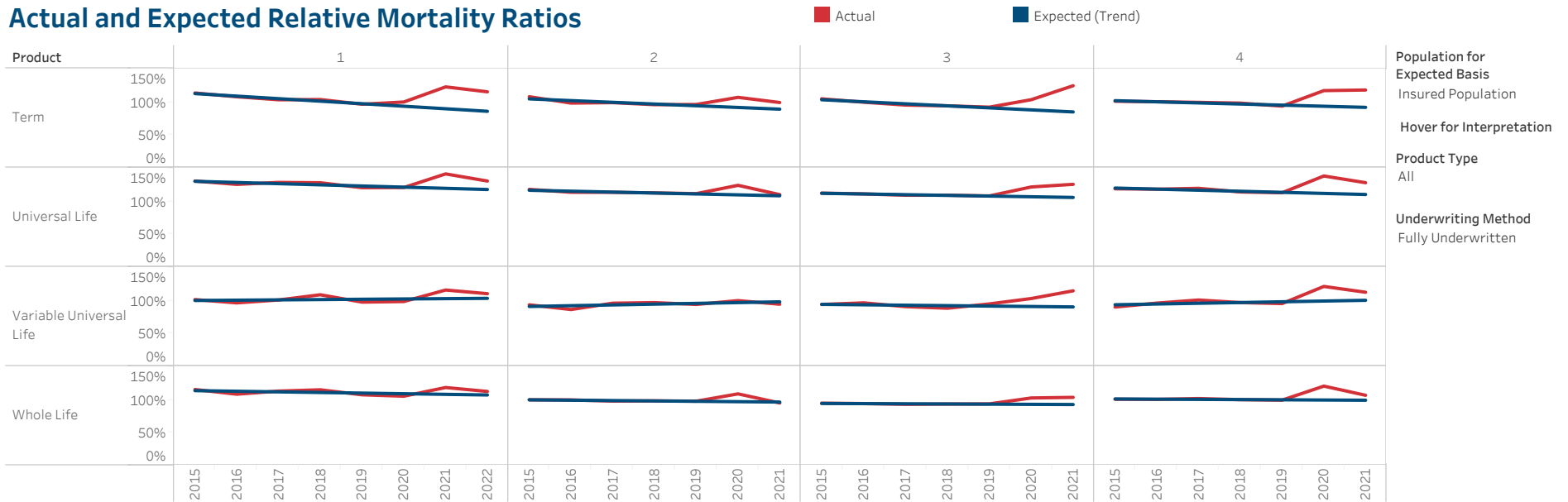
Actual and Expected Relative Mortality Ratios



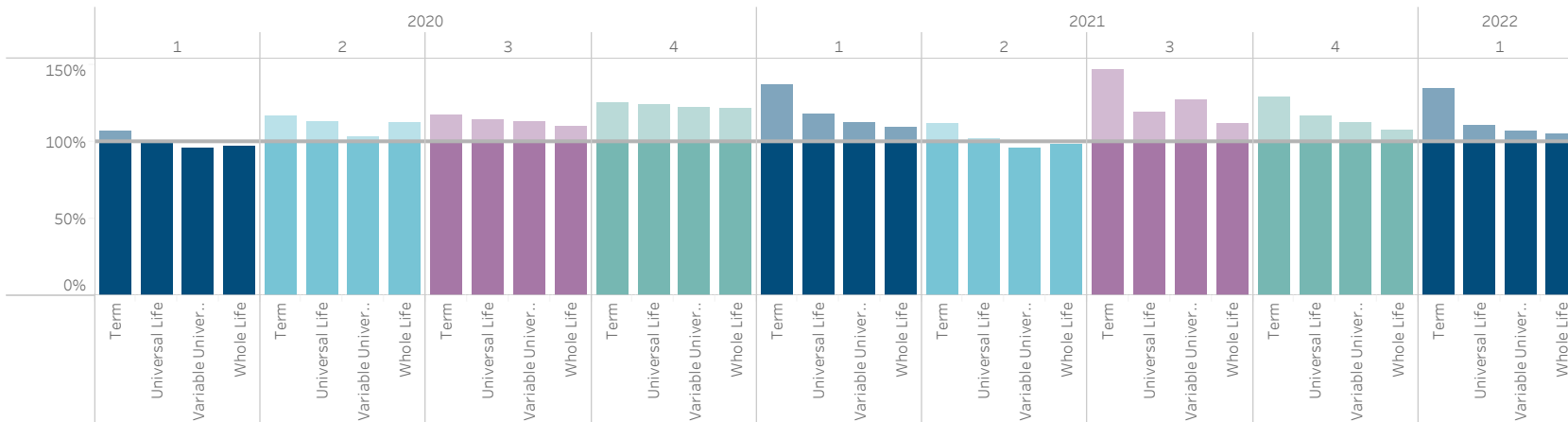
2020 - 2022 Ratio of Actual to Expected Relative Mortality Ratios



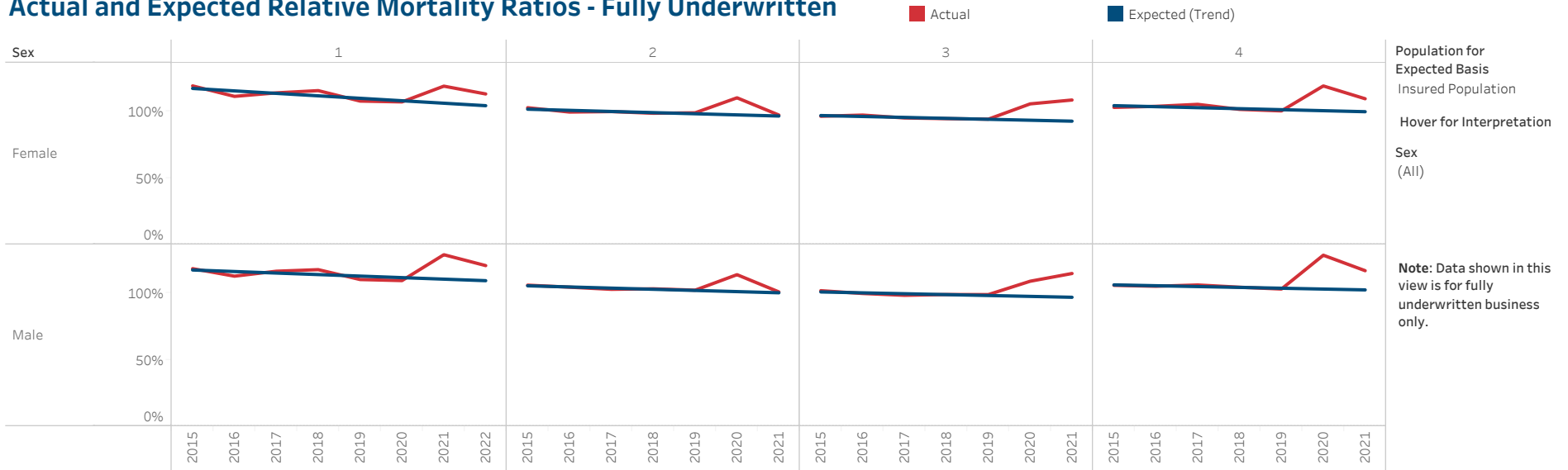
Actual and Expected Relative Mortality Ratios



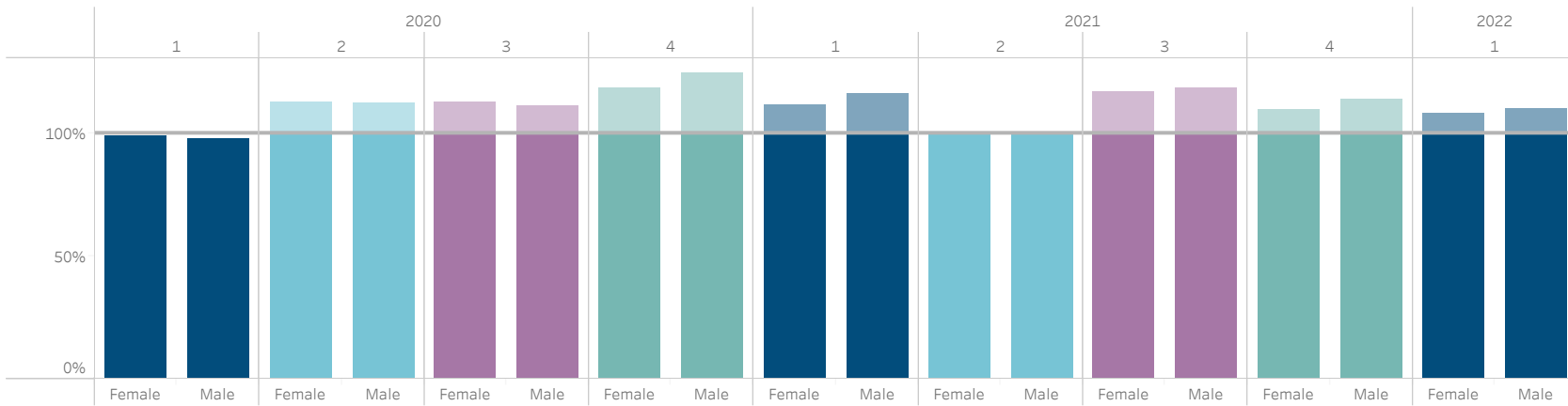
2020 - 2022 Ratio of Actual to Expected Relative Mortality Ratios



Actual and Expected Relative Mortality Ratios - Fully Underwritten

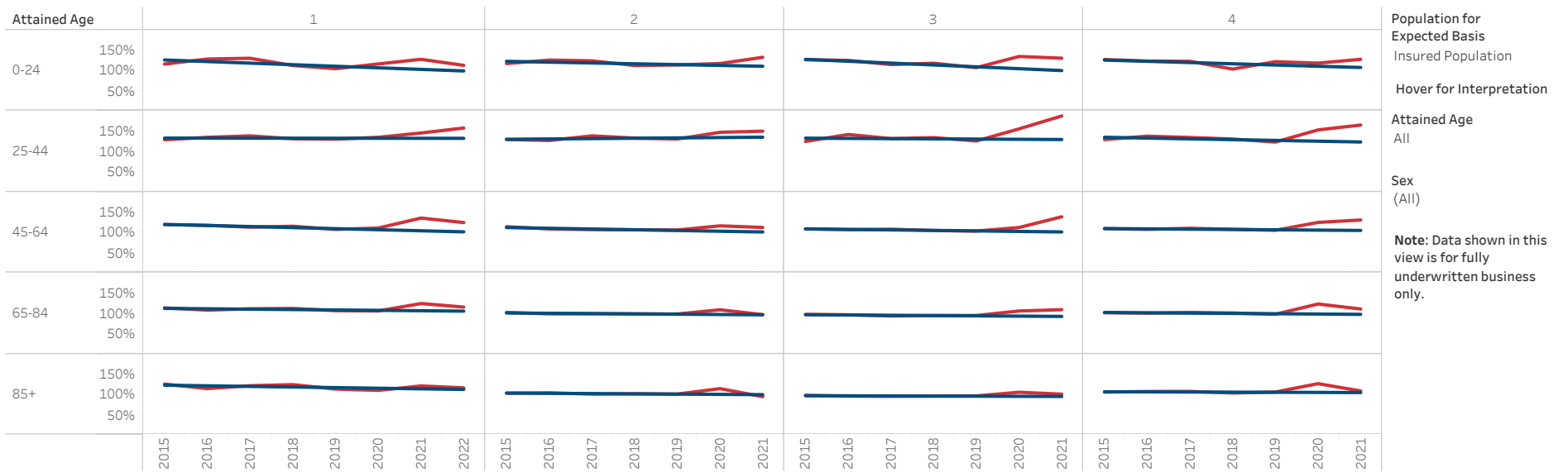


2020 - 2022 Ratio of Actual to Expected Relative Mortality Ratios - Fully Underwritten

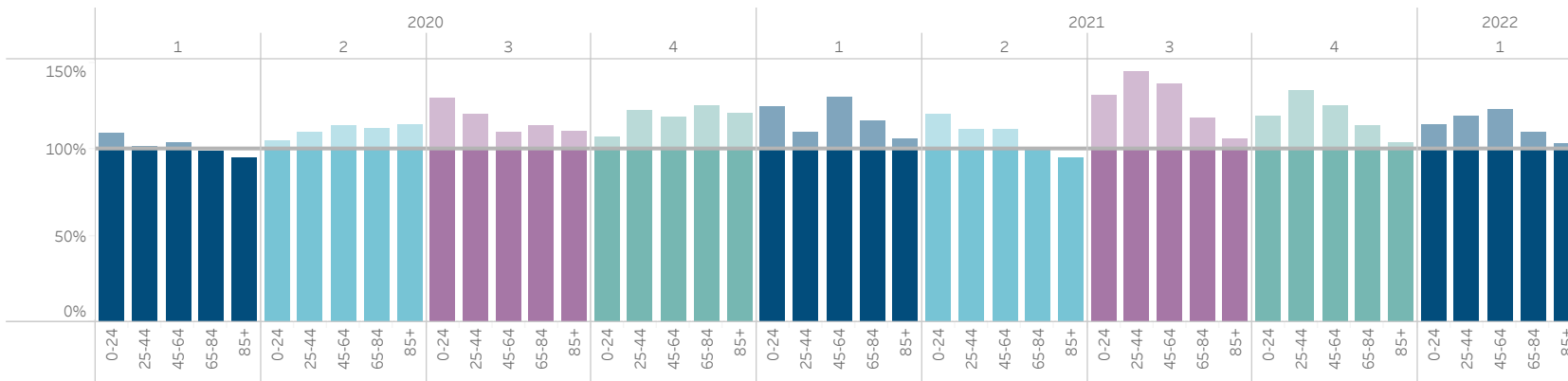


Actual and Expected Relative Mortality Ratios - Fully Underwritten

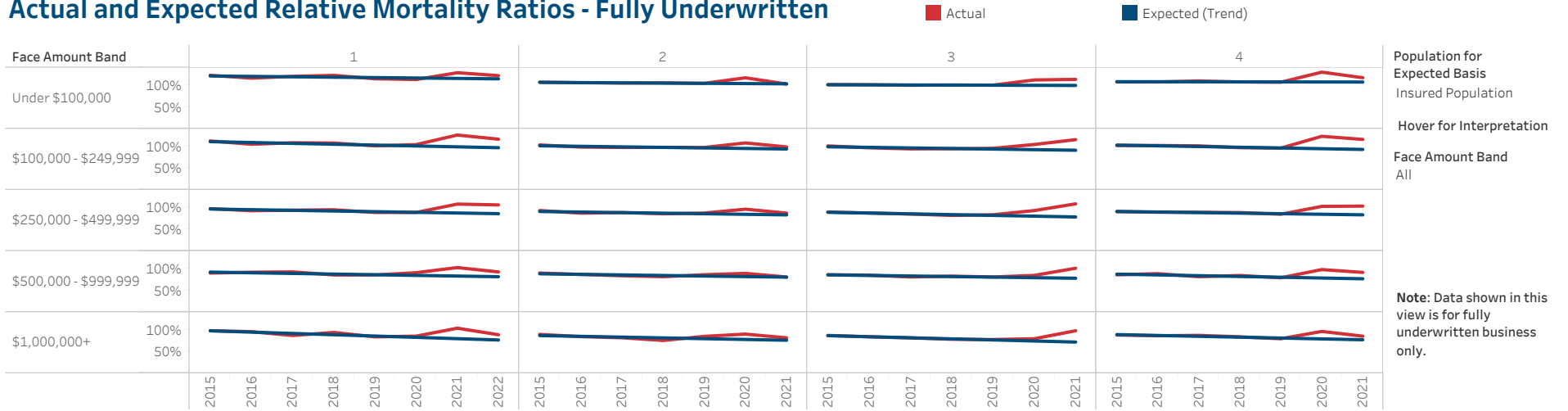
Actual Expected (Trend)



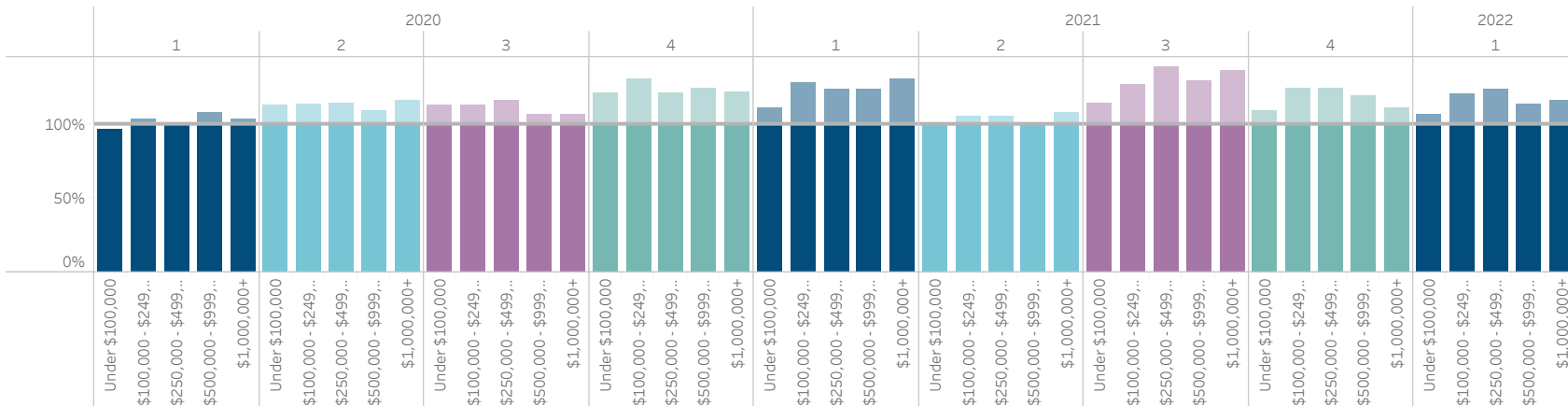
2020 - 2022 Ratio of Actual to Expected Relative Mortality Ratios - Fully Underwritten



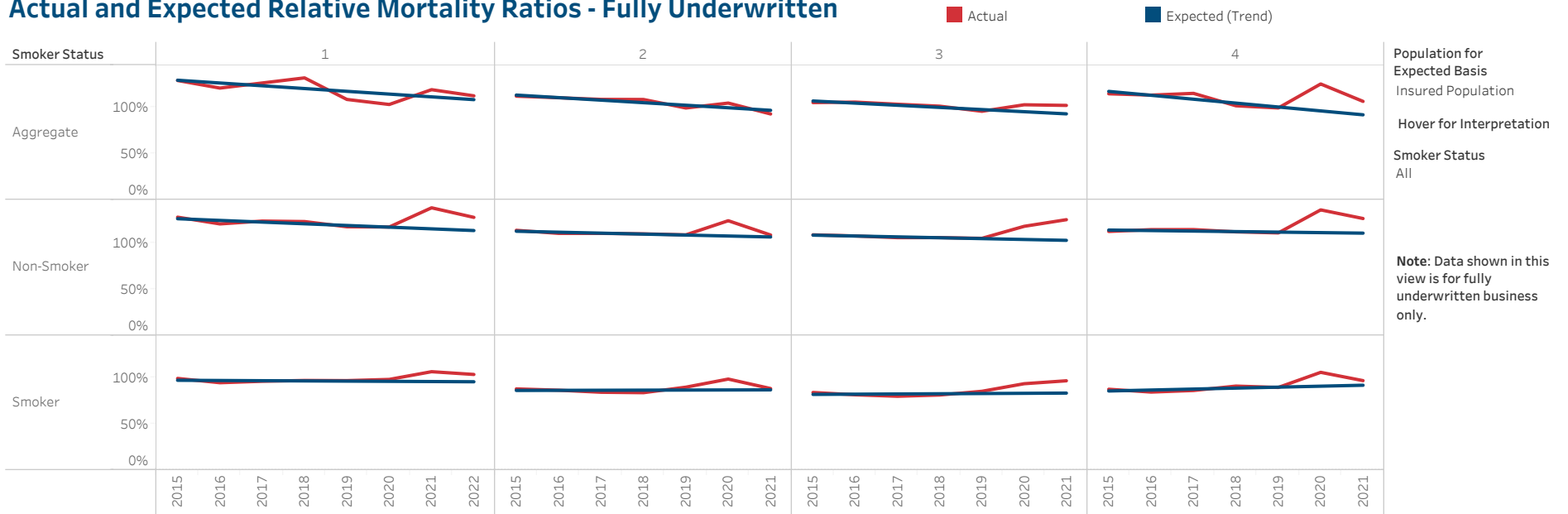
Actual and Expected Relative Mortality Ratios - Fully Underwritten



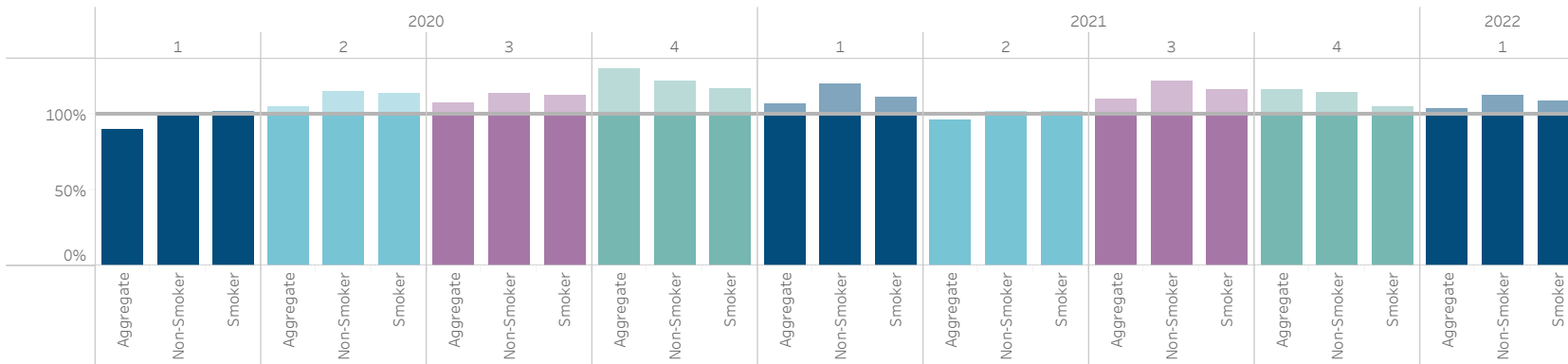
2020 - 2022 Ratio of Actual to Expected Relative Mortality Ratios - Fully Underwritten



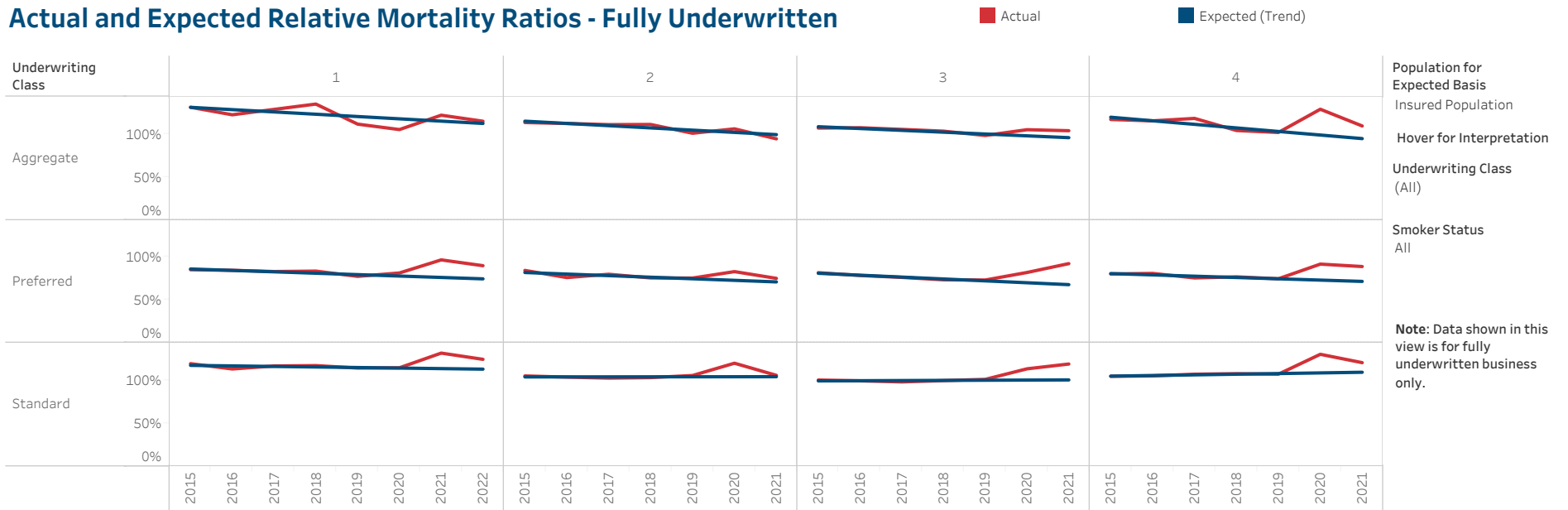
Actual and Expected Relative Mortality Ratios - Fully Underwritten



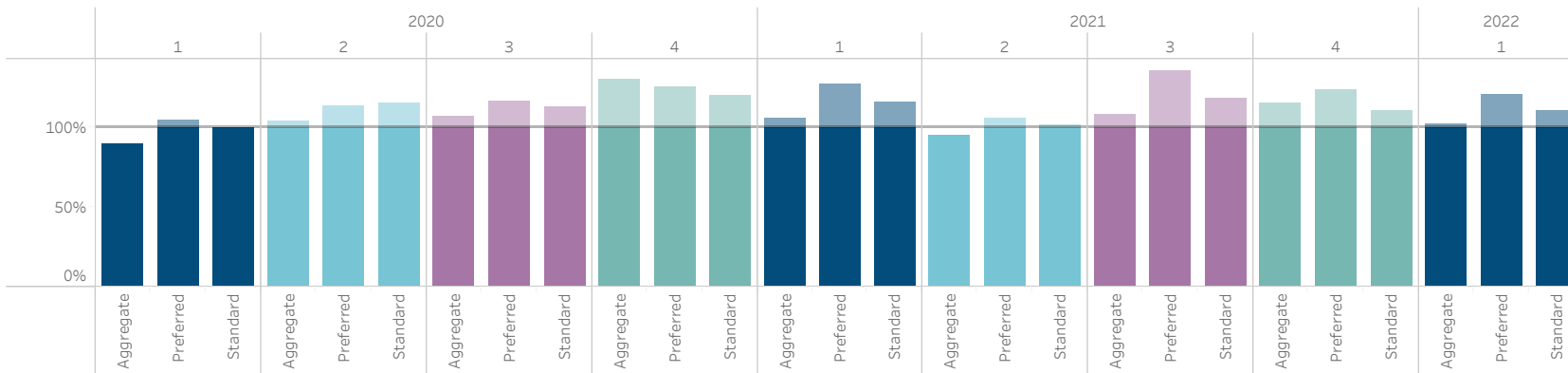
2020 - 2022 Ratio of Actual to Expected Relative Mortality Ratios - Fully Underwritten



Actual and Expected Relative Mortality Ratios - Fully Underwritten



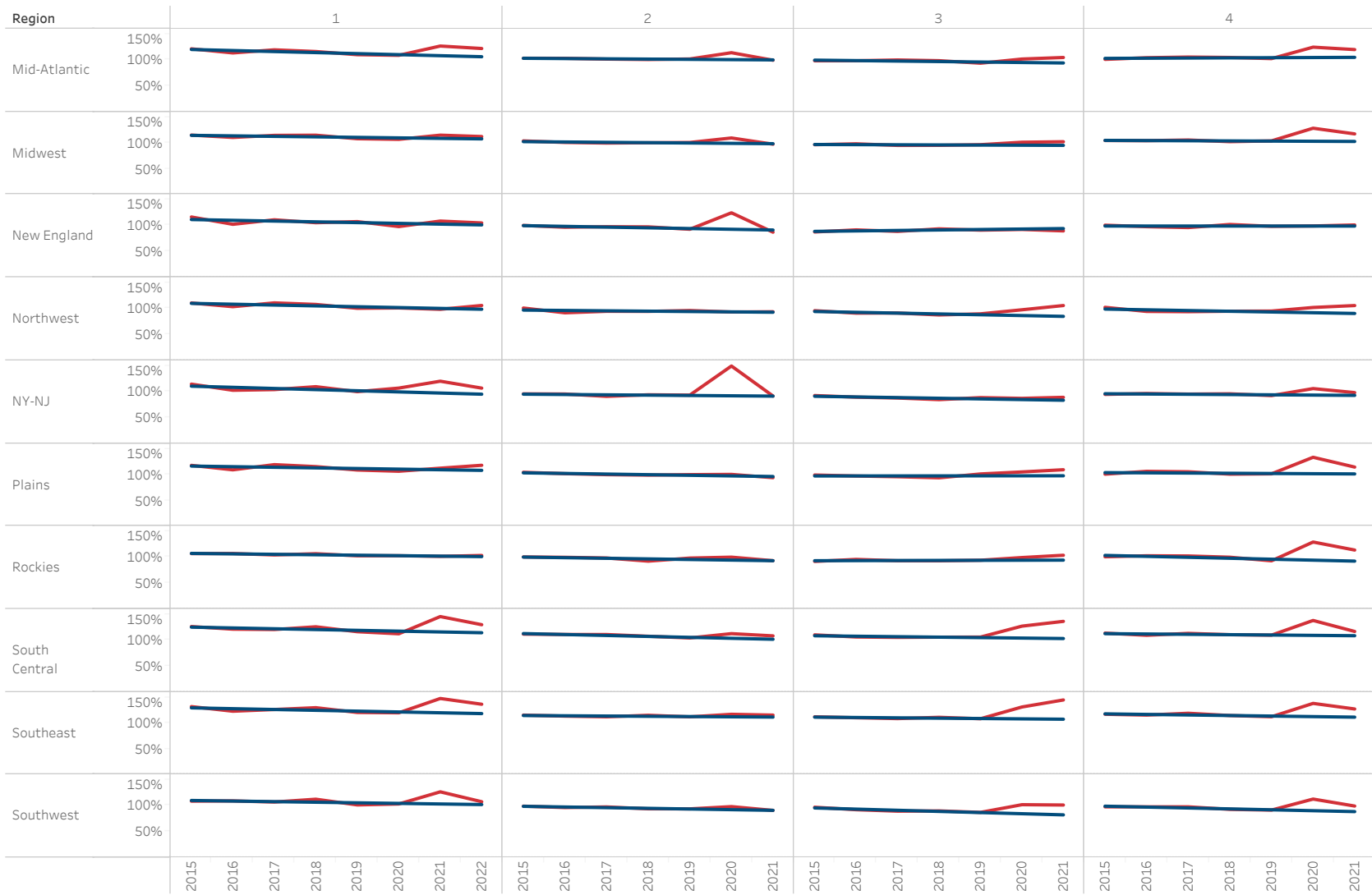
2020 - 2022 Ratio of Actual to Expected Relative Mortality Ratios - Fully Underwritten



Actual and Expected Relative Mortality Ratios - Fully Underwritten

Actual

Expected (Trend)



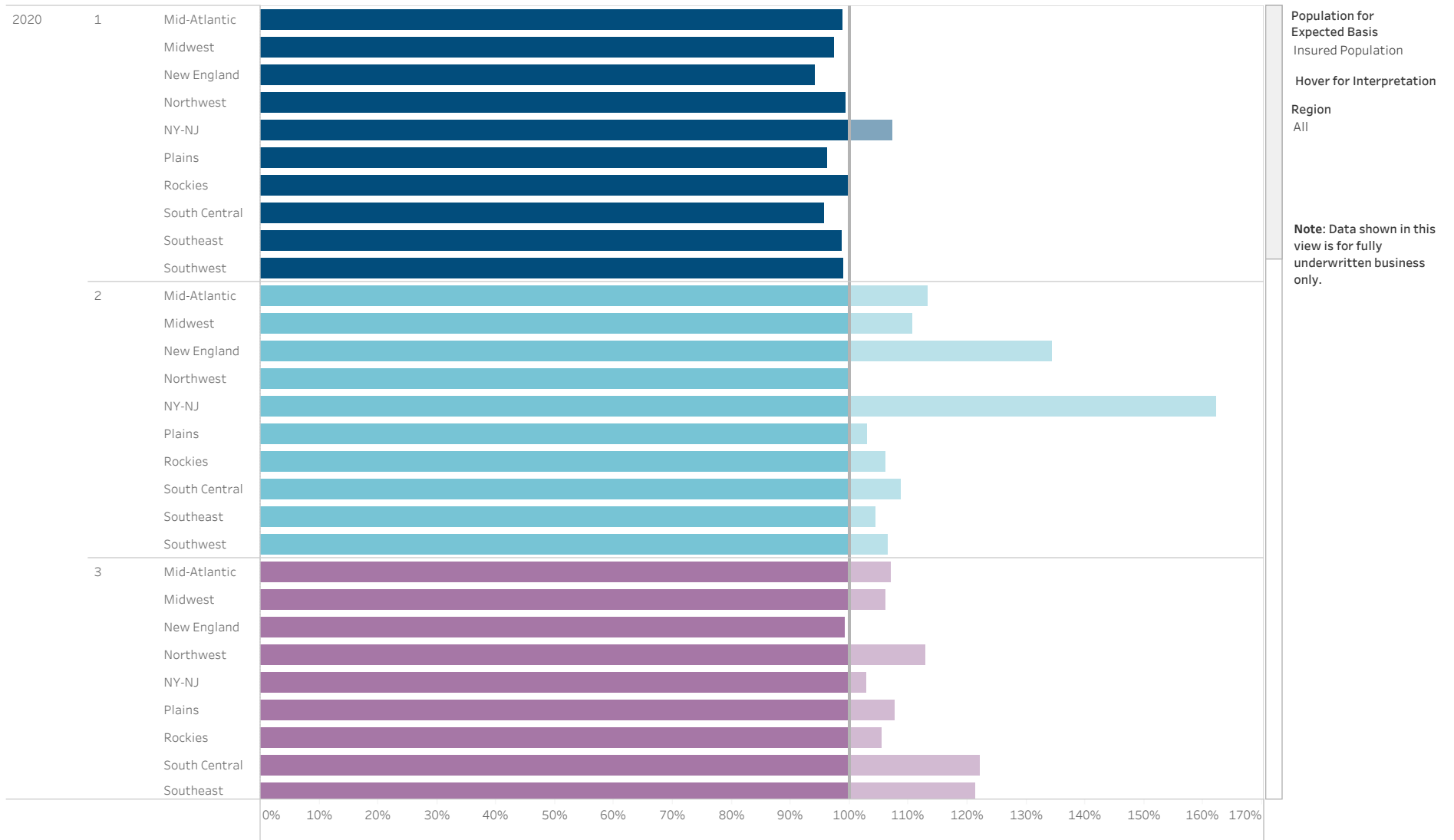
Population for Expected Basis Insured Population

Hover for Interpretation

Region All

Note: Data shown in this view is for fully underwritten business only.

2020 & 2021 Ratio of Actual to Expected Relative Mortality Ratios - Fully Underwritten



2015 - 2022 Claims and Exposure by Quarter and Sex

Sex	Year	1		2		3		4		Sex (All)
		Claims	Exposures	Claims	Exposures	Claims	Exposures	Claims	Exposures	
Female	2015	39,566	4,083,545	35,399	4,148,829	33,812	4,207,747	36,168	4,221,811	
	2016	38,777	4,194,385	35,175	4,223,822	34,898	4,290,756	38,266	4,310,628	
	2017	40,652	4,239,165	36,310	4,312,809	34,835	4,380,021	38,771	4,398,195	
	2018	41,802	4,320,243	36,485	4,393,452	35,673	4,462,517	38,753	4,480,287	
	2019	40,826	4,399,143	37,808	4,467,470	36,495	4,529,765	39,494	4,541,730	
	2020	41,864	4,504,814	44,835	4,538,215	42,816	4,620,762	49,570	4,646,373	
	2021	48,914	4,575,090	40,919	4,665,954	46,794	4,747,030	47,731	4,773,970	
	2022	49,508	4,690,917							
Male	2015	52,434	4,842,753	47,944	4,904,627	46,404	4,962,807	48,713	4,967,797	
	2016	51,116	4,922,479	47,571	4,941,230	46,538	5,007,911	49,635	5,019,943	
	2017	52,896	4,924,849	47,671	4,995,503	46,645	5,063,069	50,313	5,073,907	
	2018	54,003	4,973,409	48,363	5,043,774	47,235	5,112,183	50,537	5,122,434	
	2019	52,101	5,019,282	49,144	5,084,631	48,038	5,145,876	50,675	5,150,138	
	2020	53,508	5,097,652	56,659	5,121,136	55,062	5,199,423	65,145	5,217,043	
	2021	64,283	5,123,411	51,654	5,208,412	59,825	5,287,133	61,212	5,306,665	
	2022	62,225	5,202,902							

2015 - 2022 Claims and Exposures by Quarter and Attained Age

Attained Age	Year	1		2		3		4		Attained Age All
		Claims	Exposures	Claims	Exposures	Claims	Exposures	Claims	Exposures	
0-44	2015	2,221	3,351,064	2,267	3,389,551	2,215	3,421,941	2,317	3,416,655	Sex (All)
	2016	2,345	3,381,689	2,234	3,393,103	2,445	3,433,583	2,410	3,436,168	
	2017	2,369	3,371,909	2,387	3,423,767	2,309	3,470,596	2,353	3,476,774	
	2018	2,267	3,411,429	2,315	3,466,580	2,371	3,518,098	2,326	3,528,129	
	2019	2,251	3,461,970	2,355	3,512,673	2,303	3,558,311	2,282	3,563,289	
	2020	2,421	3,534,581	2,627	3,559,421	2,867	3,622,885	2,821	3,645,220	
	2021	2,709	3,593,073	2,867	3,667,312	3,564	3,733,477	3,154	3,760,355	
	2022	2,929	3,695,760							
45-64	2015	14,447	3,683,030	13,836	3,732,228	13,513	3,778,298	13,629	3,783,810	
	2016	14,569	3,750,256	13,643	3,765,616	13,353	3,816,237	13,676	3,824,730	
	2017	14,080	3,749,522	13,317	3,799,991	13,442	3,846,484	13,971	3,849,611	
	2018	14,330	3,767,069	13,230	3,813,620	13,270	3,857,699	13,875	3,857,585	
	2019	13,825	3,772,280	13,443	3,814,648	13,304	3,852,838	13,632	3,848,512	
	2020	14,136	3,800,565	15,293	3,810,618	15,051	3,861,752	16,561	3,867,197	
	2021	17,385	3,790,797	15,132	3,844,171	18,471	3,892,007	17,609	3,895,373	
	2022	16,479	3,811,015							
65-74	2015	18,398	1,152,301	17,344	1,180,311	16,851	1,206,823	17,490	1,221,369	
	2016	18,755	1,222,365	17,482	1,238,507	17,670	1,266,984	18,639	1,281,844	
	2017	19,460	1,267,891	18,370	1,296,262	17,793	1,322,954	19,166	1,335,433	
	2018	20,014	1,317,118	18,579	1,343,031	18,425	1,368,242	19,754	1,378,695	
	2019	20,255	1,358,905	19,416	1,384,869	18,958	1,410,176	20,012	1,420,469	
	2020	21,537	1,413,798	22,744	1,429,527	22,741	1,460,886	26,125	1,473,762	
	2021	27,184	1,454,764	21,850	1,486,162	25,855	1,513,697	26,153	1,520,945	
	2022	26,460	1,493,557							
75-84	2015	25,746	532,584	23,322	541,445	22,535	550,348	24,086	553,702	
	2016	25,099	550,627	23,043	555,078	22,576	565,941	24,615	570,945	
	2017	26,609	562,697	23,731	573,634	22,856	585,167	25,208	591,483	
	2018	27,445	584,503	24,177	597,949	23,557	611,669	25,571	618,537	
	2019	27,070	610,540	25,132	622,613	24,320	633,985	25,872	638,495	
	2020	27,918	634,753	29,608	640,376	28,503	652,627	34,427	655,891	
	2021	33,379	644,707	26,679	658,246	30,355	672,840	31,622	681,223	
	2022	33,589	675,964							
85+	2015	31,208	208,485	26,583	211,065	25,109	214,268	27,369	215,164	
	2016	29,138	212,975	26,354	213,767	25,402	216,922	28,579	217,853	
	2017	31,036	212,908	26,189	215,557	25,089	218,768	28,392	219,652	
	2018	31,755	214,339	26,556	216,831	25,292	219,762	27,771	220,520	
	2019	29,534	215,432	26,611	217,980	25,659	220,997	28,376	221,744	
	2020	29,370	219,380	31,229	219,996	28,721	222,609	34,787	221,902	
	2021	32,545	215,691	26,053	218,992	28,383	222,646	30,414	223,226	
	2022	32,285	217,993							

Methodology

The analyses included in this dashboard were based on reported claims submitted by participating companies through March 2022. Death occurring after March 2022 were omitted from the analyses to minimize distortions due to reporting lags. Any deaths prior to March 2022 that were not yet shared by company contributors at the time of this report may impact the analysis, but the authors feel the impact will likely be minimal.

The primary goal of this dashboard is to communicate industry mortality experience starting with the pandemic through the date noted above, and to share the level of excess mortality observed each quarter since the pandemic started. The expected mortality trend is based on the five calendar years prior to the pandemic (2015 – 2019) and is a very important assumption in any pandemic-related excess mortality result.

Starting with 2020 results, Expected Relative Mortality Ratios were developed independently for each relevant sub-segment of the experience. For example, separate 2020 Expected Mortality Ratios were developed for each quarter and face amount group and then compared against the 2020 Actual Mortality Ratios. Additional subsets of trends can be viewed by sex, attained age group, underwriting class, smoker status, product type, geographic region, and underwriting method. The inclusion of these graphs allows the user to assess for themselves the appropriateness of the trend line any of the excess mortality results.

After examining various subsegments of business, it was felt that the development of a trend line was more appropriate than using an average of the Actual Relative Mortality Ratios over a period of time, such as 2015-2019, or a single year ratio, such as 2019. The use of recent trends captures emerging trends in factors such as mortality improvement or mix of business.

Only single life, base policies are included for the purposes of this analysis. Various categories of policies were excluded from our analysis:

- Joint life policies
- Policy riders
- Policies with residences outside of the U.S.
- Policies issued prior to 1950

Certain views may be excluded if the expected claim count is fewer than 50.

Definitions Hover for description

Actual Relative Mortality Ratio

Actual to Expected Relative Mortality Ratio

Excess Mortality

Expected Relative Mortality Ratio

Relative Mortality Tables

Trend line

Participating Companies

AI&G Life

Allstate

Ameritas Life Insurance Corp.

Amica Life

Baltimore Life

CNO Financial Group

Equitable

Global Atlantic Financial Group

Guaranty Federal Mutual Life