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Editor's Letter Life Risk News

Editor's Letter, Volume 3, Issue 08, August 2024



Chris Wells
Managing Editor
Life Risk News

The **European Life Settlement Association** (ELSA, publisher of Life Risk News) has published its latest Licensed Provider Matrix, which documents the states of the US that various life settlement providers are licensed to do business in. *Greg Winterton* spoke to **James W. Maxson**, Partner at **EM3 Law** and **Bryan Nicholson**, Executive Director at the **Life Insurance Settlement Association**, to get their thoughts on the provider space in *Consistent Licensed Provider Landscape Indicative of Maturation of Life Settlement Industry.*

The Longevity Index for England (LIFE Index), developed by a team led by **Professor Andrew Cairns** of **Herriot Watt University**, uses modern data science techniques - the random forest algorithm - augmented by machine learning to analyse life expectancy at the neighbourhood level. *Aaron Woolner* spoke to Prof. Cairns to learn more about the index and the approach in *Using Local Knowledge To Fine Tune Life Expectancy Analysis*.

The incoming Labour government in the UK was quick to make clear its commitment to the momentum sparked by last year's Mansion House pension reforms but how far it will decide to take the Pensions Review, in terms of UK defined benefit schemes, will depend on its appetite for reform. Samantha Downes spoke to **Paul Kitson**, Partner at **EY**, **Steve Webb**, Partner at **LCP**, and **Calum Cooper**, Head of Pensions Policy Innovation at **Hymans Robertson** to get their thoughts on the topic in *Pension Review Has UK Bulk Purchase Annuity Market in Its Sights*.

Summer tends to be quieter for many parts of the alternative investment industry as people take their foot off the gas a little bit to enjoy the nicer weather and head out on holiday. But this year, two categories within the broader longevity and mortality risk markets did not get the memo. *Greg Winterton* spoke to **Dan Knipe**, Chief Investment Officer at **Kilter Finance** and **Rob Haynie**, Managing Director at **Life Insurance Settlements** who provided their views as to the outlook for M&A and management buyout deals in the life risk markets in *Life Risk Market Deal Bonanza a Coincidence or a Sign of Things To Come?*

The advent of Electronic Health Records is transforming the landscape of life settlement underwriting but there are some challenges in utilizing them in an underwriting context **Roger Tafoya**, President & Chief Underwriter at **Predictive Resources**, explains more in *Using Electronic Health Records in Life Settlement Underwriting*, a guest article this month.

Activity in the smaller scheme corner of the UK's pension risk transfer market has held up in the past 18 months, despite initial concerns of crowding out. *Greg Winterton* spoke to **Adam Davis**, Managing Director at **K3 Advisory**, to get his thoughts on the drivers of activity in this part of the country's booming bulk purchase annuity space for this month's *Q&A*.

The evaluation of mortality risk stands as a cornerstone in determining the value and viability of life settlement investment portfolios and among the myriad of factors influencing mortality, tobacco and other forms of nicotine have implications reaching far beyond the confines of specific health-related issues. **Pushparani Mudaliyar**, Medical Underwriter at **CG Analysts**, provides some useful insight on the subject in *All-Cause Mortality of Nicotine Use in the Life Settlement Industry*, our second guest article this month.

Despite Germany's total pension assets touching €730bn, activity in the country's pension risk transfer market has been muted due to an insurance regulatory framework which caps the guarantees carriers can offer. *Aaron Woolner* spoke to **Magnus Schmagold**, Partner at **Funding Solutions**, to learn more about the market and its outlook for future growth in *Longevity Swaps on the Table in Nascent German Pension Risk Transfer Market*.

I hope you enjoy the latest issue of Life Risk News.

Consistent Licensed Provider Landscape Indicative of Maturation of Life Settlement Industry



Author: **Greg Winterton**Senior Contributing
Editor

Life Risk News

The landscape of licensed life settlement providers is largely unchanged this year, according to new data published by the European Life Settlement Association (publisher of Life Risk News)

The organisation is out with an update to its Licensed Provider Matrix (LPM), which it originally published as part of a 'fact sheet' in December last year. The LPM lists the licensed life settlement providers active in the industry, and the states in which they are licensed to operate.

In 2024, there is a net reduction of the total number of licenses of seven, a statistically insignificant 0.85% contraction from the 707 licenses that ELSA identified when it conducted the exercise last year.

The data suggests a reasonably settled market for these firms.

"The size of the licensed provider market in the life settlement industry was very similar this year to last year, with few comings and goings," said Chris Wells, Executive Director at ELSA.

"That consistency is a benefit to our industry, and for investors, the takeaway should be that the asset managers they entrust with their capital are investing in a market where there are plenty of providers to work with, which in turn keeps pricing keen. Healthy competition at the provider level means asset managers should not be overpaying for policies, which increases the chances they will be delivering higher returns for their clients," he added.

"Healthy competition at the provider level means asset managers should not be overpaying for policies, which increases the chances they will be delivering higher returns for their clients" - Chis Wells, ELSA

The number of firms in the LPM remained at 38; one new entrant, LifeBridge Legacy, secured a license in Indiana this year, and one firm, X-Group Retirement, no longer holds any licenses (it was licensed in Texas last year).

The process of becoming licensed as a life settlement provider can hardly be described as straightforward. First, the fact that insurance is life settlements are regulated at the state level means that any firm wishing to become licensed will have to go through the process a maximum of 44 times (if you include Puerto Rico, which regulates life settlements). New Mexico regulates viatical settlements and Michigan has a viatical settlement law on its books but does not require licensure to purchase a policy; none of Alabama, Missouri, South Carolina, South Dakota, Wyoming or the District of Columbia regulates the market.

Each state that maintains a regulatory regime for the secondary market typically uses either an iteration of the NCOIL Model Act, or the NAIC Viatical Settlements Model Act, or a combination of both, as their model, which requires applicants to tailor their application each time. The time that it takes to become licensed varies wildly from state to state; it has been known to take more than a year in some cases.

"The process of becoming licensed as a provider is much more onerous than most people and companies that are newer to the space think it is," said James W. Maxson, Partner at EM3 Law.

"You're dealing with a very involved statutory schema. The information required on the application is different in every state. Most require an NAIC Biographical Affidavit, some require a third-party affidavit, some require fingerprinting, some require audited financials, and all require a plan of operations and anti-fraud plans. A lot of work goes into it and rarely do two states ask for identical information."

Additionally, the process has changed in recent years, which has impacted the timescales involved in licensing.

"The one thing that is uniform in the process is that in every state, becoming licensed is a two-step situation. First, the application is approved, and then the contracts that the provider wishes to use are approved.

"Previously, both documents frequently could be filed at once at the same time, but now, in virtually all states the latter is filed after the former, because of the SERFF (System for Electronic Rates and Forms Filing) system that is now required for filing and approval of forms has been introduced

has been adopted in almost all of the states that regulate life settlements," added Maxson.

Last year, only four firms were licensed in 40 or more states: Abacus Settlements, Coventry First, Life Equity and Maple Life Financial. This year, those same four firms occupy the top four slots; in every state, there is at least one licensed life settlement provider where a license is required.

"Consumer choice is a critical component of the success of any market, and it is encouraging that the American Senior has options in all states that have an established regulatory regime," said Bryan Nicholson, Executive Director at industry group, Life Insurance Settlement Association. providers doing at least one deal in 2017, with 27 firms doing so in each of 2022, 2021, 2020 and 2019. Last year saw a pull back to 23 firms, but for Nicholson, the message remains.

"The number of secondary market transactions is growing, as is the awareness among the population generally. Our industry has many excellent quality providers transacting in the market, with good coverage across the country, which means choice for the American Senior when looking to sell their life insurance policy," he said.

"Consumer choice is a critical component of the success of any market, and it is encouraging that the American Senior has options in all states that have an established regulatory regime"

- Bryan Nicholson, LISA

In terms of activity, the life settlement provider market, like most others, has larger players and smaller ones. Trade publication The Life Settlement Report, part of The Deal, publishes an annual 'league table' of secondary market transactions in late spring or early summer each year, with data from the prior calendar year sourced by public records requests from state insurance departments.

In 2023, 3,181 transactions were concluded by 24 providers, but the top six firms (in terms of activity) accounted for 2,728 of those, or 86%. In 2022, 3,057 transactions were completed, and the top six accounted for 2,512, or 82%. In 2021, 2,938 deals got done, and the top six firms did 2,277 of those, or 77%.

Last year saw the first reduction in the number of providers completing a transaction since at least 2017. The Life Settlement Report's data shows 23



Using Local Knowledge To Fine Tune Life Expectancy Analysis

Author:
Aaron Woolner
Contributing Editor
Life Risk News

The link between geography and life expectancy can be traced back to the seventeenth century with the publication of John Graunt's, 'Natural and Political Observations...Made upon the Bills of Mortality' in 1662, which established different levels of mortality for rural and city dwellers.

The bills of mortality referred to by Graunt were weekly lists of parish birth and death records which had been published in England since the midsixteenth century, but today's researchers have a more comprehensive set of tools.

The Longevity Index for England (LIFE Index), developed by a team led by Professor Andrew Cairns of Herriot Watt University, uses modern data science techniques - the random forest algorithm - augmented by machine learning to analyse life expectancy at the neighbourhood level.

Despite the use of different technologies, the end result had one remarkably similar to Graunt's findings: a distinct difference in urban and rural mortality levels.

The LIFE Index was first published in 2021 and was updated in 2024 to reflect the impact of changing parliamentary boundaries and Cairns says that while the project was initially intended for pensions and insurance providers, it now has a broader utility.

"The starting point seven or eight years ago was that we were looking to see how much variation there was in mortality across the population and was aimed, in particular, at pension applications," he said.

"I then realised there was this very rich data set produced by the Office for National Statistics (ONS). That led me off in a slightly different direction in terms of thinking about the inequalities across the population and changed it from a purely pensions perspective to a more general socioeconomic project"

- Andrew Cairns, Herriot Watt University

"And I then realised there was this very rich data set produced by the Office for National Statistics (ONS). That led me off in a slightly different direction in terms of thinking about the inequalities across the population and changed it from a purely pensions perspective to a more general socioeconomic project," he added.

Cairns' research looked at life expectancy in England and Wales's 33,000 Lower Layer Super Output Areas (LSOAs), which are the smallest subdivision used by the UK's Office of National Statistics and form the basis of the Index of Multiple Deprivation.

The analysis was based on 12 separate variables such as the proportion of people above age 65 with no qualifications, the crime rate, the average number of bedrooms, and the urban rural class. Of the 12, two turned out to be of much greater importance.

"Income deprivation and employment deprivation are probably picking up between 80 and 90% of the variation that you see," he says.

The other important variable is the split between urban and rural populations which Cairns says is responsible for the other 10% of life expectancy differences, depending on how many variables are analysed.

"Other variables, such as the number of bedrooms in a property, can be used as a proxy for urban/rural, so if you use less than 12 variables then urban/rural is important but this diminishes if you use 12," he says.

According to Cairns, applying machine learning was a critical part of analysing the data as it allows non-linear trends to emerge. Medical trials, for example, typically use the Cox regression analysis which has a purely linear approach.

"The random forest algorithm is able to pick up non-linearities in the data, compared with more traditional methods. In general, it gives a better fit across all of the neighbourhoods, whereas the linear methods fit well in some parts of the data and then don't fit well in other areas," says Cairns.

The non-linear approach brought one key trend to light - 'the healthy immigrant effect', which is when the proportion of UK born lives gets below 70% of the total population at which point there is a noticeable increase in life expectancy.

"If you were using a more traditional, linear model, it wouldn't be able to pick that up. Whereas by using machine learning methods as you move across the scale in terms of unemployment, or other factors, what you can find is that one particular predictive variable might be important in one part of that data set, but not important in another.

"And one example that we've picked up on where non-linearity is important is in relation to the proportion of people that were born in the UK," says Cairns.

"Data from Canada, where they have much higher levels of immigration, shows that when people migrate to your country, they are healthy and are coming to take up work. And that good health seems to last," - Andrew Cairns, Herriot Watt University

> "Data from Canada, where they have much higher levels of immigration, shows that when people migrate to your country, they are healthy and are coming to take up work. And that good health seems to last,' he adds.

Cairns emphasises that further research is needed to understand the reasons for this trend, one plausible explanation is the importance of unemployment deprivation in life expectancy, a variable which is typically low among immigrants.

People born outside the UK did have lower incomes in retirement, a data point which Cairns says may be helpful to policy makers.

"A possible inference from this is that a lot of immigrants were perhaps coming into lower paid work. And, while they are less likely to be unemployed during their working lives, when they retire, they might feature in the income support variable.

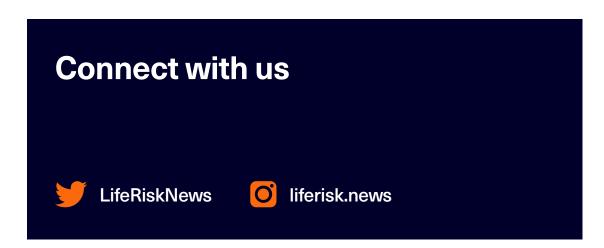
"So that is maybe different from the average person in the UK, where there's a stronger association between being unemployed and then requiring income support in retirement," Cairns says.

One limit faced by the LIFE Index is the ONS data only covers England and Wales, with Scotland and Northern Ireland having slightly different approaches to analysing deprivation. Cairns says his team is looking at how to incorporate additional data from the two countries, but he says that this won't change the outcomes.

He also says that despite the projects slight change initially to a more expansive remit that provides additional tools for policymakers the research still has significant value for industry experts.

"The index is useful for policymakers because if they are spending scarce resources to improve health outcomes. And our LIFE App provides a great tool that pinpoints the areas that need the most effort.

In the pensions, or life insurance, context it has a slightly different use because these organisations have their own data and resources and they will understand the characteristics of the pensioners, or policyholders, in detail. Nevertheless, we believe that the LIFE Index can be used alongside this other data to enhance valuations and pricing," he says.



Pension Review Has UK Bulk Purchase Annuity Market in Its Sights

Author:
Samantha Downes
Contributing Editor
Life Risk News

The incoming Labour government was quick to make clear its commitment to the momentum sparked by last year's Mansion House pension reforms.

During his brief tenure as Chancellor of the Exchequer, Jeremy Hunt committed the then Conservative-led regime to an ambitious programme of pension reforms that, among many things, included encouraging more investment in UK companies.

His replacement, Rachel Reeves, wasted no time in launching what she claimed was a 'landmark pension review' to boost investment, increase pension pots and tackle waste in the pensions system.

In its Pensions Bill confirmed in the King's Speech last month, the new government outlined proposals for an investment shift which, initially targeted defined contribution schemes and the Local Government Pension Scheme (LGPS).

The Pensions Review, which is part of wider consultation, will go further by looking at the UK's entire £2trn pension pot.

The Pensions Review had been promised in the Labour party manifesto while the Pension Scheme Bill outlined in the King's Speech included only a narrow range of measures, such as a value for money framework to drive the consolidation of defined contribution (DC) pensions; measures on consolidating micro pension pots, the so-called small pension pots issue; a legal framework for Superfunds; and new duties on pension scheme trustees to look after members after retirement.

"By operating a two-stage pensions review, with an early hunt for measures which could be added in to the current Bill, the Government has the potential for faster implementation of measures which it believes would promote the 'productive' use of pension scheme finances"

- Steve Webb, LCP

Steve Webb, Partner at LCP and a former pensions minister, said the new government is now suggesting the Pension Review could result in

further measures being introduced in the Pension Schemes Bill, rather than waiting 12 months for another Bill in another King's Speech.

These would include the use of the Pension Protection Fund (PPF) as a public sector consolidator - this means the PPF would have a remit to invest over a longer-term and in assets out of reach for some smaller pension schemes - and measures to allow sponsors to extract surplus from the best funded schemes. This in turn could slow gilt sales, sustain productive investment for longer and generate surplus cash to benefit corporate sponsors, DB members and potentially the DC generation.

"By operating a two-stage pensions review, with an early hunt for measures which could be added in to the current Bill, the Government has the potential for faster implementation of measures which it believes would promote the 'productive' use of pension scheme finances," said Webb.

How far the new Labour government will decide to take the Pensions Review, in terms of UK defined benefit schemes, will depend on its appetite for reform.

Paul Kitson, Partner and Head of EY's Pension Consulting Business, said the new government already had the beginnings of a framework in the pension industry's response to the DB options consultation, one of many which came out of the Mansion House reforms and closed for responses in April.

"I think it's too early to say what direction the Pensions Review might go in, particularly on the defined benefit side. But one of the first things the new pensions minister will have been able to do is review all of the industry responses to the previous DB Consultation."

Kitson also said the proposal for the PPF as a consolidator was likely to be a profound one for the UK's PRT if implemented. This is because the original proposal, that the PPF would act as a buyout provider to small struggling schemes, had grown to funds not yet able to afford a buyout.

"It will be interesting to see how such an evolved PPF will sit alongside its commercial counterparts," Kitson added.

DB surpluses will also be on the new government's radar. If the government acts on surpluses, Kitson believes it would be a game changer.

"Currently, most employers will opt for a buyout. However, if a surplus can be returned to the employer in an easier way than currently allowed, that could drive a very significant shift to longer term run-on. We may see schemes that are confident they won't revert back into deficit saying they won't opt for a buyout and will choose to run on instead."

Kitson also said the new government had been clear it wanted to continue the previous administration's push to get pension funds investing in UK-based productive finance and private equity assets

"Pension funds in surplus are notoriously cautious with their investment strategy. They generally do not want to risk that surplus and so lock it in and have invested in lower and lower yielding assets, by moving more into government bonds for example"

- Paul Kitson, EY

"Pension funds in surplus are often cautious with their investment strategy. They generally do not want to risk that surplus, so they invest in lower yielding assets by moving more into government bonds, for example. However, if this approach is taken by a large portion of the UK pensions sector, we need to consider the impact this may have on the UK economy in the long-term," he said.

So, you end up in this position where we are today, where the UK pension sector is now investing in a way that's far more cautious than the commercial insurers. So, if all of these pension funds, which account for £1.5trn are now investing in ultra cautious assets, is that helpful to the UK economy?

This in turn would also mean funds could use their surplus to better fund their DC schemes.

"DC contribution rates from both the employer and employee are currently too low for a secure retirement, and one of the things we're asking employers is whether their DC pension cost is likely going to increase for current employees," added Kitson.

The Pensions Review could, Kitson argued, make life easier for insurers when pricing and negotiating buyouts.

If the PPF emerges as a consolidator, organic change may evolve around the standardisation of benefits, whereby insurance companies would be able to price buyouts using what Kitson predicted could be just five different benefit tranches. This would mean, Kitson predicted, five standard ways of calculating liabilities allowing for different modelling scenarios.

"Anything that standardises benefit calculation ultimately leads to better pricing for schemes," explained Kitson.

Such simplicity may still be some way off and as Kitson and Webb admit, the Pensions Review is going to have some complex and urgent issues to address.

"Even if we did see some changes coming out of the review that mean more schemes run on, the industry is so large – currently only insuring about £50bn a year, or about 3% of the market p.a – so insurers are not going to be struggling for volume.

"The UK will still have a very vibrant buyout market, even if run on becomes more of a norm," Kitson said.

Calum Cooper, Head of Pensions Policy Innovation at Hymans Robertson said the Pension Review had already had an impact by focusing trustees and sponsors on their endgame and whether to transfer risk to the insurance market.

"We do expect that a number of schemes may choose to run-on that may not otherwise have chosen to do so, but still expect to see a very busy risk transfer market for the foreseeable future, focused on insurance but with the potential for superfunds to become an established part of the landscape."

Life Risk Market Deal Bonanza a Coincidence or a Sign of Things To Come?



Author: **Greg Winterton**Senior Contributing
Editor

Life Risk News

Summer tends to be quieter for many parts of the alternative investment industry as people take their foot off the gas a little bit to enjoy the nicer weather and head out on holiday.

But this year, two categories within the broader longevity and mortality risk markets did not get the memo.

The life settlement and insurance-linked securities markets saw four deals announced publicly in July - three M&A deals and one management buyout.

Whilst alternative asset classes such as private equity, real estate and private debt see four deals announced most days, for these industries, this was something of a busy month.

In the ILS space, on 23rd July, UBS announced that it is selling Credit Suisse Insurance Linked Strategies Ltd, which the firm inherited as part of its acquisition of Credit Suisse in March last year, to CSILS' management team, which is led by Niklaus Hilti.

"We are incredibly excited about this strategic transaction for us which marks another significant milestone in the journey of the CSILS team. It reinforces our commitment to our clients and marks a pivotal moment that allows us to build on our strong foundation and focus on our mission and innovation, while maintaining the highest standards of excellence in everything we do"
- Niklaus Hilti, CSILS

"We are incredibly excited about this strategic transaction for us which marks another significant milestone in the journey of the CSILS team. It reinforces our commitment to our clients and marks a pivotal moment that allows us to build on our strong foundation and focus on our mission and innovation, while maintaining the highest standards

of excellence in everything we do," said Hilti in the press release.

And then, just two days later, Switzerland-based ILS asset manager Twelve Capital announced a merger with UK asset manager Securis Investment Partners.

"We have always recognised Securis as an innovative and hugely respected business in the ILS market, and the combination of our two businesses presents an exciting opportunity to create a leading ILS franchise, and one of the largest independent ILS asset managers globally. The coming together of our businesses will unlock significant innovation potential and enable a wider range of ILS solutions to be delivered to a truly global investor base, building on existing client coverage in North America, the UK and Europe, as well as Asia Pacific," said Urs Ramseier, Executive Chairman & CIO of Twelve Capital in its press release.

In terms of the number of participating asset managers, this corner of the alternative credit market is small. Numerous reasons abound for this, but the main three are that high barriers to entry exist in the form of the need to have a large and established network of connections at insurers, the space requires significant and specific expertise/experience in the actuarial and insurance industries, and the availability of deal flow is lower when compared to other alternative investment markets, such as the traditional private SME lending market, or even other complicated structures such as the CLO space.

The ILS market can be broadly categorised as life and non-life, the latter of which includes catastrophe bonds, which received significant media coverage at the beginning of this year as the space enjoyed stellar returns in 2023. CSILS, Securis and Twelve Capital all have ties to both spaces, but the outlook for further M&A in the life ILS space specifically – at least, to any significant extent – will be muted.

"With only a handful of ILS managers with a dedicated life ILS franchise within the business it feels unlikely that we'll see M&A activity to specifically consolidate those capabilities," said Dan Knipe, Chief Investment Officer at Kilter Finance.

Things might be different, however, in the life settlement market. The first of two deals announced in July in this space saw provider Lighthouse Life acquiring the assets of Harbor Life Settlements, an SEO lead generation business, at the beginning of the month.

"Acquiring Harbor Life's assets, including their go-to-market consumer brand and all underlying intellectual property, enhances Lighthouse Life's lead generation capabilities," said Michael Freedman, CEO of Lighthouse Life at the time.

And then on 19th July, provider Abacus Life acquired asset manager Carlisle Management Company, the latest example of vertical integration in the life settlement market.

"The acquisition of Carlisle is a strategic move aligned perfectly with our commitment to client-centric solutions and our continued growth as a global alternative asset manager,"

- Jay Jackson, Abacus Life

"The acquisition of Carlisle is a strategic move aligned perfectly with our commitment to client-centric solutions and our continued growth as a global alternative asset manager," said Abacus Life CEO Jay Jackson in its news release.

Whilst its life ILS cousin may not be expected to continue to see significant M&A activity, that might not be the case for life settlements.

Life settlements is a larger market than the life ILS one. The transaction structure in the secondary market features numerous intermediaries, such as providers, life settlement brokers and insurance agents, whereas there are significantly fewer in the life ILS market, where transactions are generally bilateral (with the odd syndicated deal thrown into the mix).

Part of the reason for the presence of intermediaries is how the regulatory regime for life settlements has developed, given that the secondary market always works with a consumer – life insurance policy holders, generally those around retirement age and above – who bring deal activity to market at the beginning of the process.

This nuance means that the outlook for life settlement M&A has potentially more legs than its life ILS cousin. And, according to Rob Haynie, Managing Director at life settlement broker Life Insurance Settlements, there is a benefit to found here as well.

"I'm not surprised to see some evidence of consolidation in the life settlement industry," he said.

"It's a sign of a maturing market generally, but also, a sign that some industry players see opportunity in the space in the medium to long term. I think that M&A activity shows confidence in our industry on the part of the firms participating in these deals and that confidence is well founded – life settlements is a growth industry and it's natural that some firms would want a larger slice of the pie."



Q&A Life Risk News

Q&A

Adam Davis Managing Director, K3 Advisory





Author: **Greg Winterton**Senior Contributing
Editor

Life Risk News

Activity in the smaller scheme corner of the UK's pension risk transfer market has held up in the past 18 months, despite initial concerns of crowding out. Greg Winterton spoke to Adam Davis, Managing Director at K3 Advisory, to get his thoughts on the drivers of activity in this part of the country's booming bulk purchase annuity space.

GW: Adam, first off, what is the main reason – or reasons – that activity in the smaller scheme space has held up well recently?

AD: It is important to remember that, in terms of large schemes, there are not that many of them. The outcome for an insurer is binary - you win the bid, or you lose it. On the flip side, there are many, many smaller schemes - around 75% of schemes are sub-£100m in size. So, there is plenty of potential activity in the smaller scheme part of the market, whereas there are simply not as many larger schemes to transact with.

Additionally, smaller schemes give insurers a better flow of deals which helps them with managing resources, and they have also probably seen the best improvements in terms of their funding position on average because they were probably less well hedged and less sophisticated in terms of their investment strategy before interest rates began to rise.

And lastly, there have been some new entrants into the market in the past year – not new insurance companies per se, existing insurance companies that are now participating in the market – and these firms are going to target smaller schemes deliberately, because smaller schemes are less complex, and new participants can test processes and systems, and build credibility with smaller schemes generally.

GW: One interesting trend seems to be one of insurers curating a specific solution for smaller schemes. What are some of the features of this new 'off the shelf' solution and what are the benefits and potential concerns for trustees?

AD: A lot of it needed to be off the shelf, to be honest. A lot of contracts are well negotiated, and we do have something close to a market standard. If you are a trustee for a £10m scheme, you are taking off the shelf contracts.

And this development has made the process more efficient. The insurers currently offering this service have developed standard data templates where you import the pension benefits data, and the quote process is somewhat automated. That's to be applauded.

There is a potential pitfall, which is that there are now different systems in which to input data. Brokers and trustees don't want to end up with 10 or 11 different templates that we have to complete to get a quote. There is likely a happy medium to be had somewhere, however, which satisfies both trustee/broker and insurer.

Continued on next page...

GW: PRT consulting firms constantly beat the data drum in the sense that they urge schemes looking to complete a buy-out solution to get their data in order. What specifically are insurers looking for data-wise? What grabs their attention?

AD: It's as imperative for the trustees to be confident about their scheme's benefits and data, as not being is simply reckless. BPA contracts are un-surrenderable, so we work with the trustee to ensure they do understand fully their data and benefits. If it's wrong, the change to the premium could be a lot higher and the insurer would then ask the sponsor for a material extra contribution. When we run broking processes, we're up front immediately with clients; you don't need to cross every t and dot every i initially, but we need to know that materially, the trustees are on top of this stuff. When I show a trustee a balance sheet with the cost to buy-in and buy-out, it needs to be materially right.

But ensuring that the benefits data is correct is also helpful in generating the best price. Making insurers guess means they are taking risks and they have to hold capital – which is expensive for them - and that in turn impacts the price to the scheme. It's critical to ensure that schemes do not make the insurer guess.

Lastly, the worse the data is, the more work and resources are needed between buy-in to buy-out and we need as an industry to avoid wasting valuable resource.

GW: Is there any reason that a scheme should consider a buy-in as opposed to a buy-out if they are fully funded and are there any misconceptions about the differences between the two for smaller scheme trustees?

AD: It's important to stress that running a pension schemes comes with a cost. Schemes still need

to be administered, perform valuations, etc. The scheme would be paying ongoing fees when it can transfer entirely to an insurer. So, it is unlikely to be attractive in the small scheme space to run on with a full buy-in in place.

Buy-ins tend to be seen in the larger space when a scheme wants to insure a partial slice of the scheme. You might have a situation where the sponsor has a very strong covenant, which means that the trustees might like the best of both worlds and maintain the link to the sponsor, but I still believe not many sponsors will be happy with such an approach, especially if they are also writing a cheque to make the initial full buy-in feasible.

GW: Lastly, Adam, what's the outlook for smaller scheme activity in the coming 12-18 months? Will these off-the-shelf solutions help increase activity? Will the crowding-out risk ever actually materialise?

AD: I'm more bullish than ever. The streamlined services we discussed previously are supporting activity and there are plenty of schemes which are in a funding position to enter into a BPA transaction.

The only thing that makes me a little nervous is the data quality topic. A lot of schemes have moved forward rapidly. They can afford this solution, but their data is not ready. If a scheme wants to get to a buy-out solution, and get a good price, they have to do their bit first.

That said, as an industry, we'll solve this challenge. It is imperative that we continue to work hard to make the market open to small schemes. The Pension Protection Fund's Purple Book says that 75% of small schemes are sub-£100m and 30% are less than £10m in assets. Plenty of these schemes are at or nearly at readiness for an insurance solution. The smaller end of the market should continue to see lots of activity in the coming years.



Secondary Life Markets Conference 2024



Using Electronic Health Records in Life Settlement Underwriting



Author: **Roger Tafoya**President & Chief Underwriter

Predictive Reasources

"Electronic Health Records are digital records of patients' comprehensive health information, designed to be shared across different healthcare settings.

They include virtually all components found in the paper records that comprise an insured's medical history"

The underwriting process in life settlements is crucial as it helps determine the fair market value of the policy by assessing a key pricing variable, the life expectancy. This assessment traditionally relied on manual reviews of medical records, actuarial data, and subjective interpretations by underwriters. However, with the advent of Electronic Health Records (EHRs), the landscape of life settlement underwriting is undergoing significant transformation.

Electronic Health Records are digital records of patients' comprehensive health information, designed to be shared across different healthcare settings. They include virtually all components found in the paper records that comprise an insured's medical history. In life settlement underwriting, EHRs potentially offer a more efficient and accurate method of accessing and analyzing an insured's health data, which is pivotal in determining life expectancy and therefore, a fair price.

However, there are some challenges in utilizing EHR in an underwriting context. Before we address them, we should examine other electronically stored health information, which, when considered with EHR, comprise what is called Digital Health Data, and how they compare to EHR.

Types of Health Information in EHR

EHRs contain a vast array of health information that collectively provides a complete picture of an individual's health:

- Patient Demographics: Basic data such as age, gender, ethnicity, and contact details. These are foundational for tailoring predictive models to specific population groups.
- Medical History: A detailed record of the patient's past and present health conditions, surgeries, and treatments. This information is integral in assessing the insured's overall health trajectory.
- Medication History: Includes all prescribed medications, dosages, and adherence information. This data helps underwriters understand how well chronic conditions are managed.
- Diagnostic Test Results: EHRs provide lab results, imaging studies, and other diagnostic tests, which are vital for evaluating the insured's current health status and potential risks.
- Treatment Plans and Progress Notes: Physicians' notes and treatment plans offer insights into ongoing health management and future health outlooks.
- Social and Behavioral Determinants of Health: These include lifestyle choices, social support, and socioeconomic status, all of which can significantly influence life expectancy.

While EHRs are increasingly recognized for their comprehensive nature, other types of health data, such as claims data, patient portal data, and prescription data, are also used in life settlement underwriting. However, these data sources differ significantly from EHRs in terms of depth, context, and usability.

Claims data consist of billing records generated when healthcare providers submit claims to insurers. These records typically include basic information about diagnoses, procedures performed, and services provided.

Comparison with EHR:

• Detail and Context: Claims data are transactional and often lack the

detailed clinical context found in EHRs. They provide information on what services were billed but not on the underlying clinical decisions or patient outcomes.

 Comprehensiveness: EHRs offer a holistic view of the patient's health, including unbilled interactions, clinical notes, and test results, making them far more comprehensive than claims data.

Patient portals give individuals access to a subset of their health information, often including lab results, medications, and appointment summaries. However, the data available through patient portals is typically limited to what the patient or their healthcare provider deems necessary to share.

Comparison with EHR:

- Scope: Patient portal data is a subset of EHR data, often lacking in-depth medical history, detailed physician notes, and full diagnostic test results.
- Utility: While useful for patient engagement, patient portal data does not provide the comprehensive detail needed for accurate life settlement underwriting.

Prescription data encompasses records of prescribed medications (filled), including dosage, frequency, and the dispensing pharmacy. This data is useful in understanding a patient's treatment regimen.

Comparison with EHR:

- Context: Prescription data is focused solely on filled medications, without the accompanying clinical context that EHRs provide, such as why a medication was prescribed or how it fits into a broader treatment plan.
- Depth: EHR include prescription information (prescribed and filled) as part
 of a wider health record, allowing underwriters to see how prescriptions
 interact with other aspects of the patient's health, offering a more nuanced
 understanding of their health status.

The chart below summarizes the realm of Digital Health Data and their application in life settlement underwriting:

Data Source	Utility in Underwriting	& Depth of Context	integration with Predictive Models	Implementation Difficulty
EMR	•	•	•	High
Patient Portal	•	•	•	Medium
Claims Data	•	•	•	Medium
Prescription data	٥	٥	•	Low



Figure 1 Digital Health Data Sources and Life Settlement Underwriting

EHR Hit Rates and Quality of Data

Hit rates refer to the success rate of retrieving relevant and actionable health data from EHR systems. In life settlement underwriting, high hit rates are essential for making informed decisions. Current studies show that hit rates range from 30% to 45% in well-established healthcare networks. However, these rates can vary based on geographic location and the specific EHR systems in use.

High-quality EHR data is characterized by its accuracy, completeness, and timeliness. However, issues with data entry errors, or incomplete records, can impact reliability. Nevertheless, continuous advancements in EHR technology, normalization and standardization efforts are steadily improving data quality, making it more effective.

EHR Integration

Integrating EHR data into existing models or systems requires technical expertise and involves several key steps:

"High-quality EHR data is characterized by its accuracy, completeness, and timeliness. However, issues with data entry errors, or incomplete records, can impact reliability.

Nevertheless, continuous advancements in EHR technology, normalization and standardization efforts are steadily improving data quality, making it more effective"

- Data Extraction: Extracting relevant data from EHR systems.
- Data Cleansing: Removing inaccuracies and standardizing data formats.
- Feature Engineering: Identifying and transforming data points into usable features in predictive models.
- Model Training: Training machine learning algorithms using historical data to predict outcomes based on current EHR data.
- Validation: Ensuring the model's accuracy by validating it against realworld data.

EHR data continues to evolve and become more useable in their native state directly, being produced as organized data extracts of medical information and even summaries. Data users are creating interfaces, enabling underwriters to quickly access the relevant information they need. Moreover, integrating EHR data with existing underwriting systems streamlines the workflow, reducing the time and effort.

Challenges

Several challenges persist in the widespread adoption of EHR in life settlement underwriting:

- Data Standardization: Despite standardization of data formats across various EHR systems there still exists significant inconsistencies and variability of data leading to difficulties in interpretation and the creation of a cohesive medical picture.
- Hit Rates: There has been continuous growth in EHR hit rates, but increased availability is needed. Data providers continue their efforts to improve inoperability, standardization, and creating advance search algorithms to accelerate the hit rate growth.
- Regulatory and Compliance Issues: Navigating the complex regulatory landscape surrounding EHR data use and HIPAA remains a significant challenge.
- · Integration: see below.

<u>Integration</u>

The implementation of EHR is fraught with technical and organizational challenges. Technical hurdles include integrating disparate EHR data sources and using NLP (natural language processing) with Al to synthesize large volumes of data. Education and training of industry participants who are accustomed to traditional underwriting methods is vital to successfully adopting EHR. It is also critical to establish a strategy on how to parse and analyze the voluminous data that is obtained. Clearly, this is not comparable to obtaining paper records and sending them to the underwriter. Significant IT resources, well-versed in underwriting, optical character recognition, Al and NLP, are crucial to having success.

Looking to the future, the role of EHR in life settlement underwriting is expected to grow. Advances in artificial intelligence and machine learning will likely enhance the ability to interpret and utilize EHR data more effectively. Additionally, emerging technologies like blockchain could address some of the privacy and security concerns associated with EHR data, potentially increasing the confidence of its users.

Studies from reinsurers suggest that EHRs will become increasingly integral to life underwriting processes. These organizations predict that as data quality improves and integration challenges are addressed, the use of EHRs will expand, leading to more accurate underwriting and better risk management.

In conclusion, the integration of EHRs into life settlement underwriting represents a significant advancement in the industry. EHRs provide a comprehensive and accurate view of an insured's health, leading to more precise life expectancy assessments and better pricing of life settlement policies. However, challenges still exist and must be addressed to fully realize the potential of EHRs in this space.

"Studies from reinsurers suggest that EHRs will become increasingly integral to life underwriting processes. These organizations predict that as data quality improves and integration challenges are addressed, the use of EHRs will expand, leading to more accurate underwriting and better risk management"

All-Cause Mortality of Nicotine Use in the Life Settlement Industry



Author: **Pushparani Mudaliyar**Medical Underwriter **CG Analysts**

"Among the myriad of factors influencing mortality, tobacco and other forms of nicotine use are of paramount consideration, with implications reaching far beyond the confines of specific health-related issues. This article seeks to provide some useful insight on the subject and unravel the impact this addictive habit has on all-cause mortality within the life settlement sector"

All-Cause Mortality of Nicotine Use in the Life Settlement Industry

In the dynamic landscape of the life settlement industry, the evaluation of mortality risk stands as a cornerstone in determining the value and viability of investment portfolios. Among the myriad of factors influencing mortality, tobacco and other forms of nicotine use are of paramount consideration, with implications reaching far beyond the confines of specific health-related issues. This article seeks to provide some useful insight on the subject and unravel the impact this addictive habit has on all-cause mortality within the life settlement sector.

Where did it all begin?

Tobacco has a rich and contentious history in America, dating back to pre-Columbian times when indigenous people cultivated and used it for ceremonial, medicinal, and social purposes. Following European contact, tobacco became a key crop in the colonial economy, with Virginia emerging as a leading tobacco-producing region by the early 17th century. The botanical and historical aspects of tobacco cultivation in North America reveal notably that Nicotiana Tabacum emerged as the favoured species. The accidental discovery of bright leaf tobacco in 1839 further revolutionized the industry. The growth of tobacco plantations fuelled the demand for labour, driving the expansion of the transatlantic slave trade.

Over time, and despite initial opposition, tobacco consumption evolved from snuff and pipe smoking to the widespread popularity of cigarettes. North Carolina emerged as a significant tobacco-growing region, supported by research institutions like NC State University. Various types of tobacco were cultivated across different regions for diverse purposes, underscoring the crop's cultural and economic significance throughout history.

Tobacco became a significant export commodity, driving economic growth in the colonies and shaping the social and political landscape. However, tobacco cultivation also had devastating ecological consequences, leading to soil depletion and deforestation. Tobacco's popularity continued to grow, with the invention of the cigarette rolling machine in the late 19th century revolutionising tobacco consumption and leading to the rise of mass-produced cigarettes. Despite growing awareness of its health risks in the 20th century, tobacco remains deeply ingrained in American culture and continues to be a prominent industry, albeit one increasingly regulated and scrutinised for its public health impacts.^{1,2}

Different forms of tobacco use

In the US, tobacco use manifests in various forms, each with its distinct methods of consumption and associated cultural connotations. Traditional cigarettes remain the most prevalent form of tobacco use, despite a significant decline in smoking rates over the past few decades due to increasing awareness of their health risks, including lung cancer, heart disease, and chronic respiratory conditions. Meanwhile, cigars and pipe tobacco hold a niche yet enduring presence, often associated with leisure and a sense of tradition among their users. Smokeless tobacco products, such as chewing tobacco and snuff, cater to another segment of users, offering a different experience but not without their own health risks, including oral cancers and gum disease.

"Heat-not-burn tobacco products represent another innovation; heating tobacco leaves without combustion to supposedly reduce exposure to harmful chemicals found in smoke. These modern approaches reflect a shift towards harm reduction in tobacco use, yet they also pose new challenges in understanding and regulating these products to safeguard public health"

The panorama of tobacco use in the US has evolved with the advent of modern alternatives that appeal to a broad spectrum of users, from long-time smokers looking for less harmful options, to younger generations drawn to novel experiences. Electronic cigarettes, or vaping, have surged in popularity, touted as a less hazardous alternative to smoking though not without controversies concerning their long-term health impacts and appeal to minors. Heat-not-burn tobacco products represent another innovation; heating tobacco leaves without combustion to supposedly reduce exposure to harmful chemicals found in smoke. These modern approaches reflect a shift towards harm reduction in tobacco use, yet they also pose new challenges in understanding and regulating these products to safeguard public health.³

E-cigarettes/Vapes

The use of e-cigarettes, commonly referred to as vaping, has emerged as a prominent trend in the landscape of tobacco and nicotine use in the United States, particularly among younger demographics. Originally marketed as a safer alternative to traditional cigarette smoking, e-cigarettes have gained a foothold for their perceived lower health risks and absence of tobacco smoke. These devices work by heating a liquid that usually contains nicotine, flavourings, and other chemicals to create an aerosol, which the user inhales. The variety of flavours and the innovative technology behind vaping devices have appealed to a broad audience, making it a popular choice not only for individuals seeking to quit smoking but also for new users, including teenagers and young adults.

Despite their popularity, e-cigarettes have stirred a considerable public health debate. Proponents argue that vaping offers a critical harm reduction tool for smokers unable to quit through other means, potentially reducing the exposure to the carcinogens and toxic substances associated with combustible tobacco products. However, concerns have been raised about the long-term health effects of vaping, as studies begin to uncover potential risks associated with inhaling aerosolised chemicals. Moreover, the rise of vaping among youth has sparked fears of a new generation becoming addicted to nicotine, with implications for public health that could counteract the progress made in reducing smoking rates. Regulatory bodies, including the Food and Drug Administration (FDA), have been grappling with these issues, implementing measures to curb underage vaping while assessing the role of e-cigarettes in tobacco harm reduction strategies⁴

Tobacco related mortality in the US

Notable data highlights the significant impact of smoking on mortality in the US, revealing that both male and female smokers face a mortality rate approximately three times higher than non-smokers. Smoking-related diseases, including cancer, respiratory issues, and vascular disease, are the primary causes of excess mortality among smokers.

Cigarette smoking is a leading factor in US deaths, accounting for one in every five annually and causing over 480,000 deaths, including those from second-hand smoke. Men and women are affected differently, with 278,544 deaths annually among men and 201,773 deaths among women. The difference in numbers is due to several factors, including a greater overall number of men smoking than women and men generally starting to smoke at younger ages than women⁵. Smoking results in premature death, reducing the life expectancy of smokers by at least 10 years compared to nonsmokers. Quitting before the age of 40 decreases the risk of dying from smoking-related diseases by about 90%.

Figures last reviewed in 2020 by The Centers for Disease Control and Prevention (CDC), show second-hand smoke exposure to be a notable concern, contributing to an estimated 41,000 deaths each year among US adults, including 7,333 deaths from lung cancer and 33,951 deaths from heart disease.

Gender-specific risks further underscore the severe consequences of smoking. Men who smoke face increased risks of death from bronchitis, emphysema, and various cancers, with a nearly four-fold increase in the risk of dying from coronary heart disease in middle age. Similarly, women who smoke experience elevated risks, including more than a 12-fold increase in the risk of death from bronchitis, emphysema, and lung cancer. Notably, between 1960 and 1990, deaths from lung cancer among women increased by over 500%, leading to lung cancer surpassing breast cancer as the leading cause of cancer death among US women in 1987. The most recent study showed the projected death toll for women from lung cancer between 2010 and 2014 to be almost 282,000, emphasising the urgent need for effective smoking cessation strategies and public health interventions, many of which are now being implemented. Smoking also increases the risk of dying from coronary heart disease among middle-aged women by almost five times.

The table below outlines the estimated number of smokers aged 35 years and older who died each year from smoking-related diseases (2005-2009, last reviewed 2020).⁶

Disease	Male	Female	Total
Lung cancer and other cancers	100,300	63,400	163,700
Cardiovascular disease and metabolic diseases	95,600	65,000	160,600
Respiratory diseases	58,200	54,900	113,100
Perinatal conditions	582	431	1,013
Second-hand smoke	23,526	17,758	41,284

Socio demographics

The impact of cigarette smoking on overall mortality is well-established, but age-specific mortality estimates for various US sociodemographic groups are lacking. Despite a decline in smoking, disparities persist, influenced by factors such as age, gender, race/ethnicity, socioeconomic status (SES) and region. A study addressed these gaps and explored the variation in smoking-related mortality risks including all-cause mortality relative risks (RRs) for current and long-term quitters, compared with never smokers.

The analysis conducted in 2021-2022 suggested that:

Race/Ethnicity and Education: All-cause mortality RRs were generally highest for non-Hispanic White individuals among current smokers or recent quitters, followed by non-Hispanic Black individuals, and lowest for Hispanic individuals. RRs varied significantly by educational attainment, with higher-education groups showing greater RRs associated with smoking than lower-education groups.

<u>Long-Term Quitters</u>: RRs by years since quitting among long-term quitters did not exhibit clear differences across race/ethnicity and education groups. Agespecific RR patterns showed substantial variability across racial/ethnic and education groups, as well as by gender.

Age-specific all-cause mortality rates linked to smoking vary considerably across sociodemographic factors. Higher RR estimates for current smoking among high-education groups are influenced by lower underlying mortality rates for never smokers in these groups. These estimates can be valuable in modelling analyses to evaluate the impact of tobacco control interventions on reducing smoking-related health disparities across different sociodemographic groups.⁷

Mortality in relation to smoking cessation

Smoking cessation, or quitting smoking, has been shown to significantly reduce mortality risk at different ages in the USA. Below is a breakdown of mortality data related to smoking cessation:

"Higher RR estimates for current smoking among high-education groups are influenced by lower underlying mortality rates for never smokers in these groups. These estimates can be valuable in modelling analyses to evaluate the impact of tobacco control interventions on reducing smoking-related health disparities across different sociodemographic groups"

<u>Immediate Benefits</u>: Quitting smoking at any age provides immediate health benefits.

- According to CDC, within minutes to hours of quitting, heart rate and blood pressure decrease and carbon monoxide levels in the blood return to normal.
- The risk of heart attack begins to decrease within 24 hours of quitting smoking.

<u>Long-Term Benefits</u>: The long-term benefits of smoking cessation in terms of mortality reduction are substantial.

- A landmark study published in the New England Journal of Medicine in January 2013 and using data from a cohort of 216,919 adults, found that individuals who quit smoking by age 40 reduced their risk of smokingrelated death by about 90% compared to those who continued smoking.
- Even quitting smoking later in life provides significant mortality benefits.
 The same study found that quitting by age 50 reduced the risk of smoking-related death by 50%, compared to those who continued smoking.
- Another study published in the same journal concluded that quitting smoking by age 30 adds about 10 years to life expectancy, while quitting by age 60 adds about 3 years.⁸

<u>Age-Specific Data</u>: While precise age-specific mortality data related to smoking cessation may vary, the general trend is consistent across studies:

- Quitting smoking at younger ages is associated with greater mortality benefits compared to quitting at older ages.
- However, quitting at any age provides substantial health benefits and reduces the risk of premature death.
- Studies have shown that even individuals who quit smoking in their 60s and 70s experience mortality benefits, including reduced risk of cardiovascular disease and certain cancers.

<u>Population-Level Impact</u>: Smoking cessation programs and policies have the potential to have a significant impact on public health and mortality rates.

- CDC estimates that in 2018, 61.7% of adult smokers who had ever smoked had guit.
- Efforts to promote smoking cessation, such as tobacco control policies, smoking cessation counselling, and access to cessation medications, are critical components of public health strategies aimed at reducing smoking-related mortality.

In summary, smoking cessation at any age is associated with substantial mortality benefits, with greater benefits observed when quitting occurs at younger ages. Quitting smoking remains one of the most effective ways to improve overall health and reduce the risk of premature death.⁹

The economic burden

A 2024 report from the American Lung Association states that smoking costs the US economy over \$600 billion in direct health care costs and lost productivity every year. In addition to this, second hand smoke costs the economy \$7 billion per year due to premature death.¹⁰

Facts about quitting smoking

Nicotine addiction from cigarettes is challenging to overcome, as it involves both physical dependency and social habits. In 2017, there were 55.2 million adults who had quit smoking, yet among the 34.3 million current smokers, nearly half tried to quit for at least one day in the previous year. Success in quitting often requires multiple attempts, with increased chances when using counselling or FDA-approved medications, including over-the-counter nicotine

"In summary, smoking cessation at any age is associated with substantial mortality benefits, with greater benefits observed when quitting occurs at younger ages. Quitting smoking remains one of the most effective ways to improve overall health and reduce the risk of premature death"

replacements and prescription non-nicotine pills. Counselling services, including telephone quit lines also significantly aid in the quitting process.¹¹

When is a smoker not a smoker?

Underwriters are often faced with the scenario of an insured who enjoys the occasional cigarette or the "odd cigar" and although these insureds will generally have a better life expectancy (LE) than a "full-time" smoker, they cannot be deemed to be true non-smokers. How should these "occasional" smokers be viewed from an underwriting point of view?

Similarly, how do we treat someone that has a 40-pack year history but stopped five years ago and has no current lung conditions?

Most life expectancy underwriters in the life settlement industry agree that in most instances, it will not be accurate enough to simply apply smoker or non-smoker rates and it may be more appropriate to offer a combination of the two. This can be done by applying debits to the agreed non-smoker rates. So, if for example we have an occasional or social smoker it may be pertinent to use non-smoker rates but to apply additional debits to factor in the increased risk associated with the occasional smoking.

This process can also be used for an ex-smoker with a long history of smoking who has stopped fairly recently. The actual size of the debit will depend on the total pack years when the insured stopped smoking and if there are any corelated illnesses.

Life expectancy underwriters all have different thresholds for what constitutes a smoker, ex-smoker, or occasional smoker and how they treat them. Although the approach may differ slightly, there is a common thread linking them all and the overall underwriting philosophy is similar.

In general, someone who confirms they smoke a single cigar on special occasions only, for example on the birth of a child, and has no lung disease to suggest they actually smoke more, would be deemed to be a non-smoker and underwritten accordingly.

As for vaping and e-cigarettes, it's still early days and opinions differ. Should we be treating someone using non-nicotine vapes the same as a nicotine vape user? Should all users simply be classified as a smoker? It would seem that the jury is still out on this, and time will tell.

We know that the differences between smoker rates and non-smoker rates can have a big impact on the final LE calculation and so it's vital to apply the correct adjustments. Unfortunately, there are no hard and fast underwriting rules for this, and the underwriter will need to make a judgement call based on all the evidence to hand.

Underwriting implications

In the life settlement industry, underwriting is a critical process that assesses the life expectancy of the policyholder. Tobacco use is one of the key factors considered during this assessment. Here are some specific implications of tobacco use for underwriting in the life settlement industry:

<u>Shorter Life Expectancy</u>: Tobacco use is associated with various health risks such as cancer, heart disease, and respiratory problems. As a result, tobacco users generally have shorter life expectancies compared to non-users.

In the context of life settlements, policies held by tobacco users may be perceived as riskier investments. This is due to the industry's perception that these lives have a higher likelihood of premature death. The difference in smoker v non-smoker mortality tables highlights this. We know however, that there are clearly many cases where individual tobacco users' actual life expectancies (LEs) are close to, or in line with those of non-tobacco users and this can obviously impact the accuracy of the calculated LE.

"Life expectancy underwriters all have different thresholds for what constitutes a smoker, ex-smoker, or occasional smoker and how they treat them. Although the approach may differ slightly, there is a common thread linking them all and the overall underwriting philosophy is similar"

"Overall, tobacco use introduces unique challenges and considerations in the underwriting process for the life settlement industry. While policies held by tobacco users may present investment opportunities due to potentially shorter life expectancies, they also require careful assessment and pricing adjustments to account for the associated risks"

<u>Higher Premiums</u>: Insurers charge higher premiums for policies held by tobacco users to account for the increased mortality risk. When these policies are evaluated for life settlements, the higher premiums may impact the attractiveness of the investment. Investors will need to factor in the ongoing premium payments when determining the potential returns from the life settlement transaction.

Complex Underwriting Assessments: Assessing the life expectancy of tobacco users can be more complex than for non-users due to the additional health risks associated with smoking. Underwriters will need to consider factors such as the duration and intensity of tobacco use, the presence of related health conditions, and the individual's overall health status.

Non-Disclosure: There can sometimes be disparity over the insured's smoker status. Some medical reports may suggest that the use of cigarettes ceased a few years ago while another report may suggest the insured has cut down but is still having the occasional cigarette, socially. In these instances, a judgement call has to be made, based on all evidence to hand. It is imperative to cross check with the insureds original disclosure at the time the policy was purchased in order to avoid any potential claim repudiation on death.

Overall, tobacco use introduces unique challenges and considerations in the underwriting process for the life settlement industry. While policies held by tobacco users may present investment opportunities due to potentially shorter life expectancies, they also require careful assessment and pricing adjustments to account for the associated risks.

A global view

The latest World Health Organization (WHO) tobacco trends report, released in January 2024¹², reveals that globally, there are approximately 1.25 billion adult tobacco users, with trends indicating a continued decline in tobacco use rates. In 2022, about 1 in 5 adults worldwide consumed tobacco, compared to one in three in 2000.

The WHO report highlights successful tobacco control efforts in 150 countries, with notable reductions in tobacco use seen in Brazil and the Netherlands following the implementation of MPOWER tobacco control measures. Despite progress, Dr Ruediger Krech, Director of WHO Department of Health Promotion, emphasises the relentless pursuit of profits by the tobacco industry at the expense of lives and urges continued vigilance against industry interference.

Regionally, the WHO South-East Asian Region has the highest tobacco use prevalence at 26.5%, followed closely by the European Region at 25.3%. However, projections indicate that by 2030, the WHO European Region will have the highest tobacco use rates globally. Concerningly, tobacco use among women in the European region remains disproportionately high and is decreasing at a slower rate than in other regions.

While the world is expected to achieve a 25% relative reduction in tobacco use by 2025, it will fall short of the voluntary global goal of a 30% reduction from the 2010 baseline. Only 56 countries are projected to meet this goal, with six countries experiencing rising tobacco use

In Conclusion

The data analysed by Gallup in 2022¹³ indicates a significant decline in cigarette smoking incidence in the US over several decades. From a high of 45% in the mid-1950s, the current incidence has reached a new low of 11% among American adults. Additionally, approximately three in 10 non-smokers report having previously smoked.

This decline in cigarette smoking is attributed to various factors, including increased public awareness of the negative health effects associated with smoking and ongoing government efforts at all levels to reduce tobacco use. While smoking remains legal, there are widespread restrictions on smoking

"This decline in cigarette smoking is attributed to various factors, including increased public awareness of the negative health effects associated with smoking and ongoing government efforts at all levels to reduce tobacco use. While smoking remains legal, there are widespread restrictions on smoking in public places, offices, modes of transportation, and even in private settings across the country"

in public places, offices, modes of transportation, and even in private settings across the country. Warning messages on cigarette packs also highlight the harmful effects of smoking, further contributing to the decline in its use.

The trend suggests that smoking cigarettes is becoming increasingly rare, and this downward trajectory is expected to continue in the coming years. This highlights a broader societal recognition of the dangers of smoking and concerted efforts to discourage its use.

This is reflected in the life settlements industry where we see very few current smokers, whereas the numbers of previous smokers are high.

Any views expressed in this article are those of the author(s) and may not necessarily represent those of Life Risk News or its publisher, the European Life Settlement Association

¹History of Tobacco in the World — Tobacco Timeline

²Tobacco History

3Wikipedia

4www.cdc.gov/tobacco/basic_information/e-cigarettes/about-e-cigarettes.htmle-cigarettes (cdc.gov)

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⁷Mortality relative risks by smoking, race/ethnicity, and education

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9CDC-Smoking cessation: Fast Facts | NIH - Cigarette smoking: Health risks and how to quit

¹⁰Tobacco Facts | State of Tobacco Control | American Lung Association

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¹²Tobacco use declines despite tobacco industry efforts to jeopardize progress (who.int)

¹³Americans and the Future of Cigarettes, Marijuana, Alcohol (gallup.com)



Longevity Swaps on the Table in Nascent German PRT Market

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Germany's total pension assets are touching €730bn. But even with revised accounting standards, which explicitly brought pension liabilities onto corporate balance sheets, being introduced in the mid-noughties, activity in the country's pension risk transfer (PRT) market has been muted.

Magnus Schmagold, Partner at German pension buy-out firm Funding Solutions, which has struck seven PRT deals worth a collective €324m since it was launched in 2018, says that this is about to change.

Schmagold says that in 2024 the firm has had two or three times the number of discussions around PRT transactions than in previous years, and that with transaction timelines typically around a year, he predicts there will be a significant pick-up in deal numbers next year.

"We certainly expect that 2025 will be the largest year in our history by transaction volume. We are also seeing more and more discussions covering schemes with obligations of more than €1bn," he said.

"Markets, of course, don't start with €1bn deals, and the German PRT sector is no different. Funding Solutions started with smaller transactions which evolved into bigger deals and I am positive that this will continue"

- Magnus Schmagold, Funding Solutions

"Markets, of course, don't start with €1 bn deals, and the German PRT sector is no different. Funding Solutions started with smaller transactions which evolved into bigger deals and I am positive that this will continue. In the next three to five years there will be activity involving schemes with liabilities that are €5bn plus," Schmagold added.

PRT transactions in the more developed markets of the UK and the US have been dominated by insurers. Notable deals so far in 2024 include a \$4.9bn deal between market veteran Prudential Financial and Shell US, while across the pond, SCA

UK Pension Plan completed a £1.1bn deal with Legal & General.

German insurers are unlikely to play a leading role in the German PRT market, even if the sector expands to the size that Schmagold predicts due to an insurance regulatory framework which caps the guarantees carriers can offer.

Currently this cap - known locally as the maximum actuarial interest rate - is 0.25% a year, a figure which has been in place since the 2008 financial crisis. Schmagold says that even with a proposed uplift in the cap due next year it won't be a big enough change to enable the country's insurers to offer attractive structures to pension schemes.

In 2023, The German Association of Actuaries proposed increasing guaranteed rates to 1% and in April this year the country's Finance Ministry acceded to industry pressure and said that from 1st January 2025, new policies could offer the proposed higher rate.

This marks the first increase in the maximum actuarial interest rate for 30 years, but it is still way below the returns available from investing in domestic fixed income instruments. At the start of July, German 10-year government bonds yielded 2.39%, and rates have touched 3% as recently as September 2023.

"The maximum actuarial interest rate that insurers can provide is not very compelling given where yields are so it's hard for insurers to come up with attractive pension buyout proposals. Even when the rate increases to 1% next year it still won't be appealing and that is why insurers have not been active in the German pension buyout market," says Schmagold.

German insurers may not play an active direct role in the country's PRT market, but Schmagold says that as Funding Solutions expands its portfolio it will look to offload individual risk, with longevity swaps potentially on the horizon.

German PRT deals can be structured in two ways. Broadly, either a specialist firm like Funding Solutions can acquire the shares of an existing pension company and continue to run it, or all the assets and liabilities can be transferred to a special purpose vehicle which is then run-off.

Both instances include the transfer of all risks, including asset, interest rate, inflation - and longevity.

While the UK pension buyout market has recorded a steady stream of longevity swaps from pension funds looking to de-risk their balance sheet, either as a precursor to a full buyout or to risk manage an ongoing portfolio, this instrument has not been used so far in the German market.

Schmagold says this is because German pension funds have typically had funding levels which are 15% - 20% lower than their UK peers and the country's actuaries use less prudent mortality tables.

"The funding ratio for German pension funds has historically always been somewhat below the level of schemes in the UK, likewise the longevity assumptions. That presents a larger gap to full longevity swap pricing," he says.

"Longevity swaps are certainly something we are looking at as a run-off provider and we are considering transferring-out longevity risk to specialised risk takers - essentially the same names that you see in the UK market" - Magnus Schmagold, Funding Solutions

"Longevity swaps are certainly something we are looking at as a run-off provider and we are considering transferring-out longevity risk to specialised risk takers - essentially the same names that you see in the UK market," he adds.

Longevity swaps such as the £6.4bn structure agreed between RGA and the BT Pension Fund in the UK, or the \$14.2bn deal between Dutch financial services firm NN Group and two insurers in 2023, are typically done on a book of lives.

Schmagold says that German longevity swap transactions could be part of Funding Solutions' risk management landscape as its portfolio evolves.

"Longevity swaps are something that we are constantly looking at, to see if at a certain scheme maturity, it might be useful and wise to transfer out longevity risk to an insurer which has a larger pot of obligations on its balance sheet," Schmagold says.





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