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ReCent
UK insights

somewhat different

E-cigarettes and vaping – how have they affected the life insurance market to date?

Current issues: vaping – a year on

In the May 2019 edition of ReCent UK insights, I shared my thoughts on vaping, and its potential impact on the life insurance market[1]. Since then, it seems that changing smoking habits have continuously been in the news, from the spike in hospitalisations linked to vaping in the US[2], to the launch of a new e-cigarette start-up in the UK[3], with the associated concerns about the marketing of these products to young people.

As outlined in my previous article, there are concerns about the viability of a life insurance product for vapers even under the assumption that vaping is less harmful than smoking. Vape users make up a relatively small percentage of the population, thus the target market for any life product is very specific[1]. An insurer would need impressive conversion statistics in order to make a decent return on the necessary marketing budget. In addition, there is the potential for anti-selection, with those who successfully quit smoking lapsing to buy a non-smoker product, but those who relapse to smoking keeping their insurance.

However, the spike in hospitalisations in the US last year leads us to question the assumption that vaping is healthier than smoking. Over 1,000 hospitalisations have been reported where vaping is (part of) the reason for in the respiratory issues of patients. Symptoms have typically included shortness of breath, fatigue and chest pain[2].

All patients indicated that they had vaped in the preceding weeks, with many using vaping liquids containing THC (THC is a psychoactive component found in cannabis)[2]. While no causal connection has been proven between vaping and the symptoms observed, this is likely only because randomised control trials cannot ethically be run in such cases. (Similarly, there is no officially proven causality between smoking and its health impacts.) An investigation led by the U.S. Food and Drug Administration (FDA) and Centers for Disease Control and Prevention (CDC) reports that the use of vitamin E acetate, used to dilute some vaping liquids containing THC, triggered the respiratory issues[4].

The Food and Drug Administration in the US has advised that inhalation of vitamin E acetate should be avoided[5]. The substance has been taken out of the majority of vaping products in the U.S., and the spike in hospitalisations appears to have abated. The UK market is more comprehensively regulated, and this particular additive is not found in products here. Nevertheless, this highlights that little is known about the contents of many vaping products to date.

Underwriting & Claims perspective

Hannover Re currently rates e-cigarette users/vapers as tobacco users.

See ReCent Medical News: E-Cigarettes and Severe Lung Disease (Hannover Re Media Centre)[2].

Studies have typically focussed on the harmful substances found in cigarette smoke and looked at the exposure to these from vaping. The claim by Public Health England[6] that vaping is 95% less harmful than smoking is based on exactly this sort of study. While vapers are not subject to many of the carcinogens that smokers are exposed to – or at least vapers are significantly less susceptible – cigarette smokers conversely are not at risk of vitamin E exposure.

The long-term impact of chemicals present in cigarette smoke has been observed and studied; hence the initial focus on smoking in studies on the impact of vaping.

Only long-term research into the potential harm from chemicals that are unique to vaping will show its full effect.

[1] See Smith, T.
[2] See van Zyl, N.
[3] See Geller, M.
[4] See Blount, B. C., Karwowski, M. P., Morel-Espinosa, M. et al.
[5] See Nyakutsikwa, B., Britton, J., Bogdanovica, I., & Langley, T.
[6] See McNeill, A., Brose, L. S., Calder, R., & Hitchman, S. C.

Based on the limited information currently available, I believe that vaping poses less risk than smoking in the long term. However, given the uncertainty around long-term health implications combined with the challenges of designing an insurance product that sells profitable volumes and mitigates the potential for anti-selection, I would focus on other areas for new product developments.

Author

Tim Smith
Head of Protection
Hannover Re UK Life Branch
Tel. +44 20 3206 1811
tim.smith@hannover-re.com

Connect with me on LinkedIn

COVID-19: a comment and historical perspective

Let's be honest and admit it, this virus situation is a bit scary. Cities, towns and entire countries closed down, football matches cancelled, schools shut and to top it all, you cannot even buy any decent toilet roll. But why the fear? What is it about COVID-19 that has us worried?

Is there any experience that can inform us of how this pandemic will play out?

Know your enemy

COVID-19 or to give its full title, coronavirus disease 2019, is caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)[1]. It is a 'zoonotic disease' meaning it jumped as a result of a mutation/assortment of genes from another species (possibly a bat) to humans. In itself, this is not unusual, many pandemics have emerged as a result of such a species jump, hence 'Swine flu' (H1N1) in 2009 and MERS (Middle Eastern Respiratory Syndrome) which emerged from camels[2].

Indeed one of the greatest epidemics in recent history, the 'Spanish flu' of 1918-19, was caused by a virus that was mix of avian and human strains[3].

1918-19 'Spanish flu'

The epidemic came in several waves, with the first spreading globally in the early spring aided by the vast number of troops moving across the world fighting in the latter stages of World War I. The second wave, in August 1918, was more deadly, with about 30-40% of the population infected and killing about 5% overall.

Unlike most other instances of the flu, it affected young and previously fit adults, with those aged 25-30 affected the worst, which was particularly unusual. People from all across society were impacted, with even Lloyd George, who was Prime Minister at the time, falling sick for 10 days. By the end of the epidemic, over 250,000 Britons had died[4].

It is interesting to note that the authorities in some areas closed schools[5] and recommended to "give up shaking hands for the present"[6].

[1] See World Health Organization. (n.d.)
[2] See World Health Organization. (2019)
[3] See Humphreys, M.
[4] See Honigsbaum, M.
[5] See Markel, H., Lipman, H. B., Navarro, J. A. et al.
[6] See Hume, R.

Table 1: Historic and recent epidemics/pandemics

What	When	Where	Deaths
Black Death	1347-51	Europe	50,000,000
HIV	1980-ongoing	Global	39,000,000
Spanish Flu	1918-20	Global	20,000,000
Asian Flu	1957-61	Global	2,000,000
Swine Flu	2009	Global	284,000
Seventh cholera pandemic	1961-ongoing	Global	570,000
Ebola	2014	West Africa	4,877
Measles	2011-ongoing	Congo	4,555
SARS	2002-3	Global	774
COVID-19	**2019-ongoing**	**Global**	**121,897***

*As of 14 April 2020[7]. Source: Benfield, E., & Treat, J.

1968 'Hong Kong' flu (H3N2)

As with COVID-19, this outbreak originated in China and was like the 'Spanish flu' a re-assortment of avian and human influenza viruses. The first cases in the UK were reported at the end of 1968 with over 35% of the population becoming infected. It was however, compared to the 'Spanish flu', milder in severity with a case fatality ratio of 0.4%[8].

COVID-19

As bewildering and worrying as COVID-19 is, there is no evidence to suggest it is as bad as 'Spanish flu'. If we are lucky, it may be more akin to that of the 1968 outbreak, and there are some factors that allow for a degree of cautious optimism.

For example, we know what it is; the genome of the virus was mapped in early January. This gives rise to hope that anti-viral therapy can be worked on fairly rapidly. The course of the illness is mild for most people, with only 10% of those infected presenting serious symptoms and only about 5% becoming critically ill[9].

Of course, this is not to underplay the severity of the threat. There are early indications that COVID-19 has a fatality rate that is considerably higher than that of the seasonal flu. Furthermore, those who are hospitalised become very ill very quickly. An in-depth analysis of two hospitals in Wuhan at the epicentre of the outbreak found that in those hospitalised, nearly 60% developed sepsis and nearly a quarter suffered from heart failure; 26% required treatment in intensive care and 17% needed invasive mechanical ventilation. Overall, the period from infection to final discharge for those who survived was 21 days, providing an insight into the huge strain on health care resources the epidemic presents[10].

COVID-19 will pose a severe societal challenge; life and routine will be disrupted and unusual. Many of us will fall ill, most of us will get better, but tragically, some will not.

Author

Paul Edwards
Underwriting Research & Development Manager
Hannover Re UK Life Branch
Tel. +44 20 3206 1736
paul.edwards@hannover-re.com

Connect with me on LinkedIn

[7] See Johns Hopkins University.
[8] See UK Department of Health.
[9] See Novel Coronavirus Pneumonia Emergency Response Epidemiology Team.
[10] See Fei Zhou, Ting Yu, Ronghui Du, Guohui Fan, Ying Liu, Zhibo Liu et al.

Welcome Debbie O'Hare

In this year's first edition of ReCent UK insights, we welcome Debbie O'Hare who started her role as Managing Director, Hannover Re UK Life Branch at the beginning of the year. In a short interview, Debbie talks about her 'ReCent' move to London and shares her excitement about leading the UK Life Branch.

What attracted you to the role?

"The UK has one of the most active and innovative life (re)insurance markets in the world. Whether it is insurtechs automating advice or insurers designing new products to meet the needs of the next generation, the UK market has a track record of designing solutions to respond to constantly evolving customer needs. Reinsurers not only add value by supporting this innovation, but often are the driving force.

As one of the largest global markets, the UK is also strategically significant to the Hannover Re Group. Meeting clients' needs across protection, longevity and financial solutions is an exciting challenge, and there is the potential to unlock significant value for our clients and for us."

What experience from your previous roles do you believe will be most useful for your new one?

"Hannover Re has an international network spanning 26 offices on all continents. My role as CEO of Hannover Re (Ireland) DAC involved partnering with a number of our offices around the globe to write financial solutions and risk solutions business. This is an important aspect of Hannover Re's approach – leveraging the Group's worldwide expertise to service our local clients.

"Today, more than ever, innovation is crucial to the future of our industry."
Debbie O'Hare, MD Hannover Re UK Life Branch

Over the past few years, Hannover Re has launched some exciting internal and external innovation initiatives, working with established and aspiring entrepreneurs. Being involved in these projects has been inspiring and a continual learning experience. There are many opportunities to build upon these initiatives in the UK to deliver better outcomes for customers and our clients."

It is still early days, but what are your initial thoughts on Hannover Re's strategy in the UK?

"I fully support Hannover Re's strategic focus on building partnerships that add real value to our clients and us. Price will always be important; having a competitive offering is essential, but we strive to offer more than price. Our services, expertise across all distribution channels and willingness to support truly innovative propositions provides clients with the resources to be competitive – whether they are a new market entrant or a long-established insurer.

It is key to ensure that we are at the forefront of industry developments. That could be unlocking the value of new data sets or finding opportunities in the advancement of genetic testing where others see only threats. This commitment to innovation is key to the success of our clients, and I firmly believe that our success flows directly from theirs."

Contact

Debbie O'Hare
Managing Director
Hannover Re UK Life Branch
Tel. +44 20 3206 1700
debbie.ohare@hannover-re.com

Connect with me on LinkedIn

Debbie held the position of CEO Hannover Re Ireland between 2012 and 2019, having joined the Group in 2004. Debbie is an accomplished business leader with over 25 years' experience in the (re)insurance industry working in Ireland, the UK and Sweden.

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