



Wearable tech is not just a benefit to consumers.

## Wearables in insurance: a win-win opportunity

The wearables game is changing. More sophisticated data analytics is creating new opportunities to embed wearables into protection insurance. Protection Business Development Actuary Lisa Balboa and Head of Protection Tim Smith were pleased to speak last week at the Institute and Faculty of Actuaries (IFoA) Health and Care webinar series about the win-win potential wearable tech presents for consumers and insurers.

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### IFoA webinar recording

[Link for IFoA members](#)

[Link for IFoA non-members](#)

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### Integrating wearables

The focus of wearables is expanding from fitness to health. This creates opportunities for protection insurers to integrate wearables into their propositions further.

There are some challenges to overcome though. The price tag of many wearable devices is high relative to annual life insurance premiums. If an insurer provides a wearable

device to customers at the start of the policy, then this is a significant upfront expense, potentially doubling the average acquisition cost in the protection market. Moreover, new wearables come to market regularly. The long-term nature of protection policies is out of step with the rapid pace of technological change. This could leave policyholders' devices obsolete a few years into their policy. Having device-agnostic analytics solutions that utilise data from the policyholder's own wearable is one avenue to overcome this.

Customers also need to be assured of strong data protection protocols. Transparency from insurers around how they use data from wearables is key. Embedding wearables into insurance propositions in a way that allows customers to see how the insurer is directly using wearables to support their health can strengthen consumer trust.

As part of this, insurers can embed wearables into ongoing customer engagement platforms that support positive habit formation. Research finds using motivational techniques alongside wearable devices helps users to sustain changes in health-related behaviours, such as increased physical activity levels<sup>1</sup>. Insurance propositions that integrate wearables alongside personalised health coaching programs can therefore support customers in maintaining positive lifestyle changes.

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<sup>1</sup> Ellingson et al. (2019)

Using wearables in this way can also drive regular customer engagement. Traditional protection insurance touchpoints with customers are at point of purchase and point of claim. Integrating wearables into insurance propositions creates an ongoing connection between the customer and the insurer that can improve policyholder retention.

## Underwriting

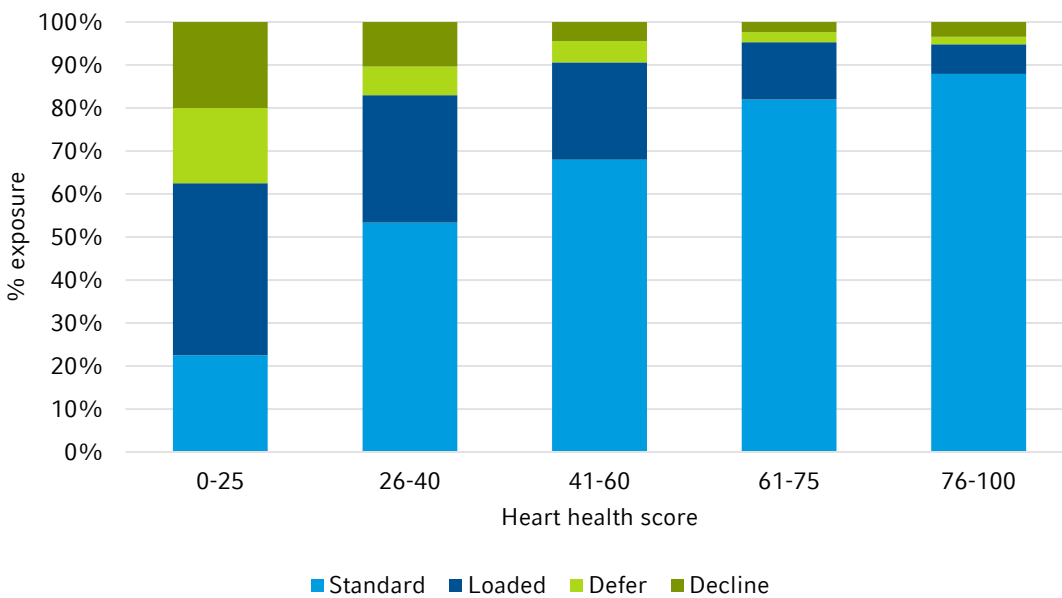
As technological capabilities continue to develop, this is paving the way to incorporate wearables into the insurance application journey. To explore this, Hannover Re conducted a pilot in South Africa using VeoSens technology,

Nearly 90% of applicants in the highest heart health bucket (scores of 76-100) received standard rates for their cardiovascular underwriting decision.

At the other end of the spectrum, more than 75% of those in the lowest heart health bucket (scores of 0-25) had underwriting decisions of loaded, defer or decline.

This shows the potential to use wearables as part of the underwriting journey. Wearables measures such as heart health score could be used to reduce the amount of medical evidence that needs to be collected. Insights from wearables could also speed up the application process for customers through increased automation of the underwriting journey.

**Figure 1: Relationship between heart health score and cardiovascular underwriting decision**



Source: Hannover Re South Africa pilot study using VeoSens technology

a wearables-powered health management and engagement platform developed in collaboration with LifeQ and Samsung.

The ca. 900 insurance applicants in the pilot used VeoSens over a three-month period. A range of metrics including sleep, activity, heart health and fitness were captured while using the wearable device. Focusing in on heart health score in **Figure 1**, results reveal a strong relationship between this wearables-based measure and cardiovascular underwriting results from the traditional insurance application journey.

## Health management

There is also growing potential to use wearable devices to support disease identification and health management. Christopher Rimmer from LifeQ highlighted at the Institute and Faculty of Actuaries webinar the emerging capability of wearable technology platforms in disease screening for chronic health conditions including sleep apnoea and atrial fibrillation.

Taking sleep apnoea as an example, in the UK it is estimated that 1.5 million adults have obstructive sleep apnoea but up to 85% are undiagnosed<sup>2</sup>. Large numbers of customers could therefore benefit from wearable tech solutions that facilitate diagnosis of this condition.

Research finds the hazard ratio for all-cause mortality for those with untreated moderate obstructive sleep apnoea is x1.2<sup>3</sup>. Using wearables to identify and seek treatment for this otherwise undetected health condition can therefore reduce mortality risk.

This one example shows the potential of wearables as a tool for providing an early warning, encouraging quicker diagnosis and intervention. As research develops in this area, there is potential to improve the claims experience across a range of conditions by picking up chronic and acute conditions before they would otherwise be detected.

Insurers can use wearables in this way to support customers with understanding and managing their health. Selling long-term policies, protection insurers are a natural partner to support individuals in ongoing prevention, detection and management of health conditions. Customers benefit directly from the disease management capabilities of wearables through improvements in their health. Insurers are likely to benefit from claims cost savings resulting from reductions in morbidity and mortality.

Adopting a long-term partnership approach where protection insurers use wearables to support customers in managing their health therefore creates a win-win for both parties.

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<sup>2</sup> British Lung Foundation (2015).

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<sup>3</sup> Ge et al. (2013)