

somewhat
different

2023

Preventative healthcare for Life & Health Insurance

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ReCent UK Insights

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Genetic Discovery: Hannover Re partners with GenePlanet to pioneer preventative healthcare for Life & Health Insurance

The pilot study

Harnessing genetics for preventative care

The intersection of genetics and insurance presents a transformative opportunity. The pilot study that Hannover Re conducted with GenePlanet has illuminated a path that showcases the potential of integrating genetic insights into the insurance domain.

- Over six months, this study conducted by Hannover Re's UK Life Branch involved 62 employees and integrated genetic testing with regular health monitoring to develop personalised health strategies.
- Pilot participants were given the choice to undergo a saliva-based DNA test and two blood tests - one at the study's outset and another towards the end.
- The blood tests and DNA tests complemented each other effectively. Interpreted blood markers from the blood tests provided explanations for the results, either reinforcing findings from the DNA test or offering reassurance regarding flagged risks.
- Results, tracked through a health app, aimed to encourage lifestyle changes, assess engagement, and enhance personalised healthcare.

The positive feedback and active engagement observed during the pilot point to an opportunity for insurance companies to not only promote preventative healthcare strategies through customer testing but enhance their customer engagement as a result.

Integrate genetic testing into insurance packages

Integrating GenePlanet's DNA solution into life insurance packages not only provides added value to customers but also has the potential to reduce claims through helping policyholders to live healthier and longer lives.

98% of participants believe that adding GenePlanet's solution to an insurance product could boost sales.

Enhance customer value and decision-making

Over **70%** of pilot participants think that the GenePlanet solution could bring value to policyholders and impact their health and well-being.

Almost all agree that this could potentially prevent customers from leaving their insurers.

Informed lifestyle changes

GenePlanet's solutions offer personal insights and expert recommendations that enable policyholders to make informed health and lifestyle choices.

Over **90%** of participants value recommendations, particularly health-related advice with high appreciation shown for interpreted blood markers.



Our health isn't determined by genes alone; a significant role is played by our environment and our lifestyle choices.

Prioritising preventative healthcare

In today's well-being landscape, there's a clear move towards helping customers live healthier and longer. To be effective, this approach requires a more tailored strategy. By integrating genetic insights with lifestyle data, insurers can craft tailored preventative strategies that go beyond traditional health advice. Our genes, which we inherit from our parents, influence how we grow, how our bodies work, and our risk for certain diseases.

Genetic testing, which examines an individual's DNA, can:

- **reveal genetic predispositions;**
- trace ancestry;
- determine drug responses;
- estimate **disease risks** (PRS); and
- identify potential **gene mutations** (screening).

Personalised preventative healthcare merges our genetic knowledge with lifestyle habits, **extending beyond diet and exercise**. It also focuses on stress management, sleep, environmental adjustments, and potential health risks.

This **prevention-focused approach** represents healthcare's future, prioritising disease prevention to improve quality of life, and maintaining wellness, not just curing illness.

Most importantly, a genetic test can pinpoint precisely what will be most effective, and where small lifestyle changes can be most impactful. As the results are tailored to the individual, we can achieve substantial health improvements through easily adopted behaviours.

"I think most people would find it generally interesting. Would definitely recommend it to someone trying to improve their lifestyle, particularly if they're struggling to find changes that work for them so far."

Pilot participant

Genetic testing helps to make informed decisions

Genetic testing, whether the results are positive or negative, provides potential benefits. Results can provide:

- a sense of relief;
- help people make informed health decisions;
- eliminate unnecessary check-ups; or
- direct a person toward available prevention, monitoring, and treatment options.

In essence, genetic testing not only informs but also equips individuals to navigate their health journey with more confidence.



A genetic test can pinpoint precisely what will be most effective, and where small lifestyle changes can be most impactful.

Type of tests

A summary of the different types of genetic testing available today is set out in the [Appendix 1](#):

1. **Medical genetic tests** - Confirm or rule out suspected genetic disorders, identify disease likelihood, and severity, or guide healthcare management. Conducted via medical staff.
2. **Lifestyle genetic tests** - Information about individual responses to diet, exercise, sleep, insights into health risks, and more, helping individuals tailor their lifestyle for optimal health. Direct to consumer.

Personalised Lifestyle Interventions

Negative habits like smoking, excessive alcohol, poor diet, inactivity, insufficient sleep, and chronic stress contribute to chronic diseases.

Personalised preventative healthcare can target these issues, focusing on nutrition, sleep, activity, and stress management, tailored to individual circumstances for sustainable changes.

Regulatory landscape

The UK has the Association of British Insurers' code of practice on genetics, one of the earliest such codes. The code is reviewed by the ABI and Government every three years.

The Code commits insurance companies to:

- treat applicants fairly and not require or pressure any applicant to undertake a predictive or diagnostic genetic test.
- not ask for or take into account the result of a predictive genetic test, except when the life insurance is over £500,000 and the applicant has had a predictive genetic test for Huntington's Disease.
- not ask for, or take into account, the result of any predictive genetic test obtained through scientific research.

Use cases of genetic testing for underwriting are therefore out of the scope of pilot considerations for the UK. Instead, we consider opportunities for genetics in terms of preventative healthcare and policyholder engagement. Data privacy and data protection regulations are also upheld in line with GDPR and EU standards. The genetic results of customers are treated as confidential and are not disclosed to insurers.

Not all genetic tests are created equal

The GenePlanet Solution

One of the goals of genetic testing is to identify whether an individual is more susceptible to a specific disease and if detected, can be utilised for diagnostic purposes.

We partnered with GenePlanet for the pilot study because their genetic analysis serves as a powerful tool for preventative healthcare. While some genetic tests focus on specific genes and regions, GenePlanet's solutions, based on Whole Genome Sequencing (WGS), cover the entire genome, offering a comprehensive view of individuals' genetic predispositions (you can read more about WGS in [Appendix 1](#)). It's about understanding the interplay between genes, lifestyle, and environment. Here are some of their capabilities:

Innovative non-invasive solutions

With a simple saliva-based DNA test, GenePlanet makes it convenient and non-invasive for individuals to access their genetic information.

MyLifestyle

- Diet and nutrition
- Sports and recreation
- Body and mind
- 80+ analysis included

A comprehensive lifestyle-related solution designed to provide personalised insights in 3 key areas based on your genetic makeup. A scientifically backed path towards improved well-being and longevity.

My Health

- Cancer risk (PRS)
- Cardiovascular disease (PRS)
- Immune system
- 20+ analysis included

This pack of analysis provides insights into potential risks for certain diseases based on your genetic makeup. The PRS¹ chapters help you understand your relative genetic risk for various types of diseases, providing a chance to take preventative measures if necessary.

You can also refer to the [Appendix 2](#) to read more about how the MyHealth feature, Health Score and PRS Scores are calculated.

Health Intelligence app

The results are delivered in a user-friendly app by GenePlanet, a tool designed to turn biological data and lifestyle information into personalised action plans and drive long-term positive lifestyle changes.

Explained results and linked to credible studies

Included analyses are based on proven science, backed by top-tier published studies. All resources are also available in GenePlanet's app.

Personalised recommendations

Users get adjusted experts' advice, for example on nutrition, exercise, and stress management, tailored to their body's needs.

Health Score checks health status

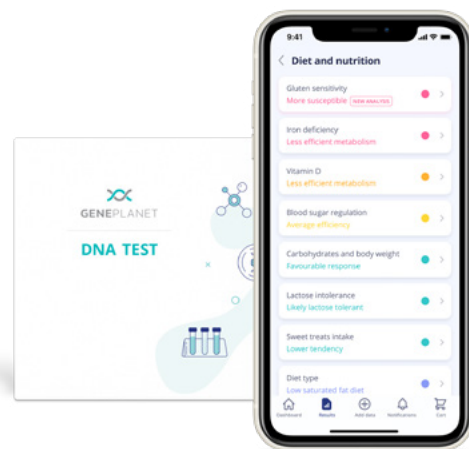
The feature combines lifestyle data, body metrics, and blood tests to determine a holistic Health Score, reflecting your health status.

Blood markers interpretation

The platform explains each blood marker's significance for health. Regular blood tests help you track and accelerate improvements.

Ongoing updates

Users benefit from new analysis added (thanks to WGS) and reminders about intriguing analyses, nudging them to consistently engage with the app and stay informed.



¹ PRS (MyHealth) examines multiple common genes that together can affect disease risk, while Cancer Screen detects rare mutations linked to high cancer risk, typically used by those with a family cancer history. The two products complement each other.

The pilot study in more detail

A six-month pilot study from September 2022 to February 2023 tested the effectiveness of integrating genetic testing with regular health monitoring. All 62 participants were employees of Hannover Re, mostly from the UK Life branch.

The study utilised:

- MyLifestyle analysis;
- MyHealth analysis (optional);
- Expert consultations;
- Blood reports (tracking blood markers); and a
- Health Score questionnaire to create personalised health management strategies.

The results, **tracked through a health intelligence app**, aimed to introduce some lifestyle changes and assess participant engagement and usability of the integrated platform with the goal of enhancing personalised preventative healthcare.

Seasonality impact

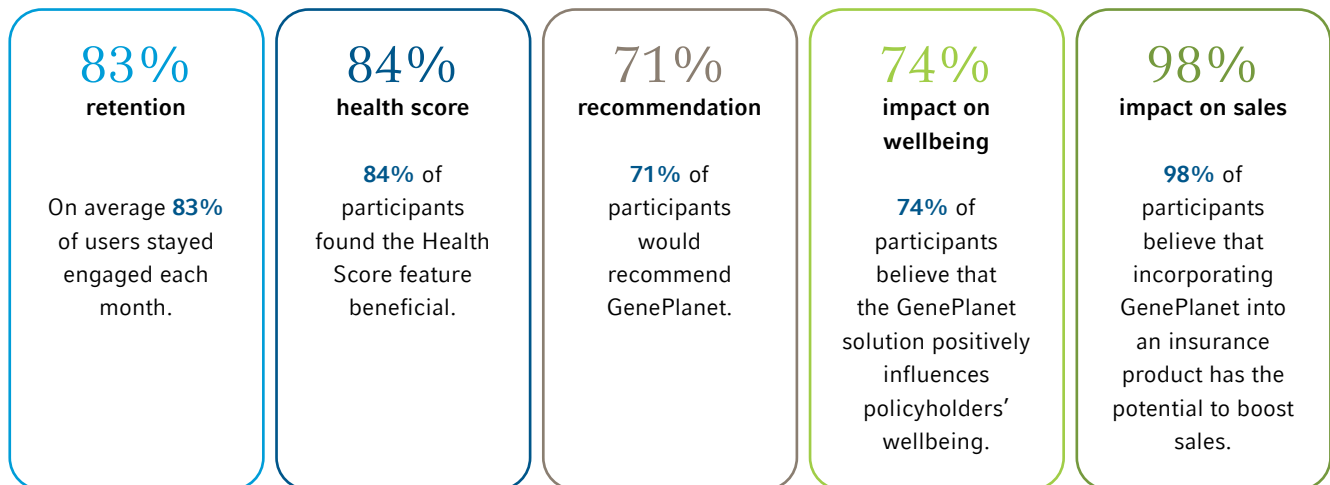
The pilot was conducted during the winter season, a time when environmental factors can affect health behaviours. Scientific research indicates that shorter, colder days in winter are associated with reduced physical activity and have been linked to higher cholesterol levels, particularly LDL cholesterol, providing essential context for understanding the pilot's settings and participants' challenges.

Users consistently engaged with the app

The pilot's findings offer a unique perspective on the user experience and the impact of the GenePlanet solution on personalised preventative healthcare journeys.

Participants regularly used the Health Intelligence App, engaging with features like the Health Score, Blood report, and personalised recommendations. This interaction highlights the app's value and positive user response to dynamic updates. Frequent use of features like the Health Score and Blood report underscores their role in health decisions whilst expert recommendations, tailored to genetic data, increased user engagement.

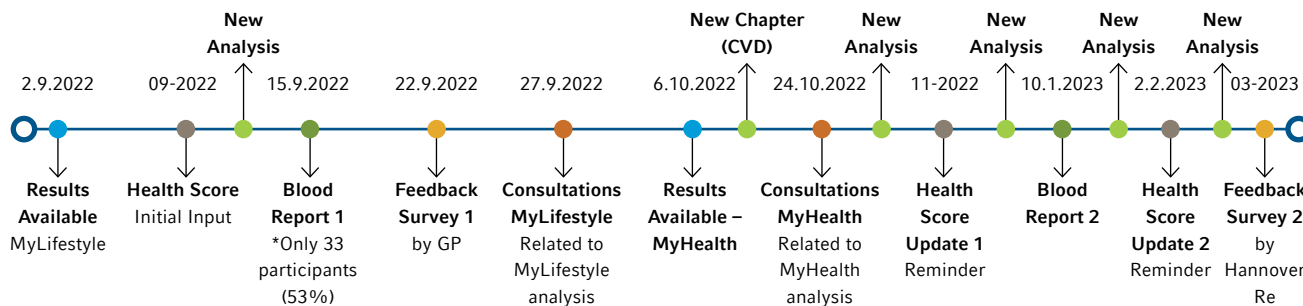
Results of the pilot



"I have already recommended the product and they have purchased the tests themselves. A thought engaging tool which helps you assess your overall risk profile, but also do more of the things that we know we're all meant to, but which are so easy to disregard in everyday life."

Pilot participant

The pilot's milestone timeline



The World Health Organisation states that lifestyle behaviours influence **60%** of our health and well-being ², with up to **50%** of cancers preventable through lifestyle changes³. The pilot underscores the importance of making health-conscious decisions to mitigate future illnesses and health risks.

The Health Score

The Health Score (HS) is a **real-time tracker tool** designed by GenePlanet to monitor and guide user's lifestyle choices. The Health Score is influenced by the lifestyle factors that the user inputs including nutrition, smoking, activity, sleep, stress and blood markers. Genetic test results are not incorporated into the health score. It highlights those elements in which the individual has not achieved the optimal result and where there is room for improvement.

It's essential that the user regularly updates this information to ensure its accuracy and to facilitate long-term progress. 84% of users found the Health Score beneficial and engaged with this feature on a weekly basis.

Health Score	Description
< 350	Low
350 – 750	Medium
750 – 850	Good
850 - 1000	Very good

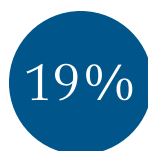
How did participants do?

"I have taken a frank look at my diet, activity levels and lifestyle habits, and made a conscious effort to eat better, move more and consider whether that glass of wine is really needed at the end of the day."

Pilot participant



67% of participants involved in the pilot reported a sedentary life.



19% saw an improvement in their health scores, due to improved blood markers. The highest health score changes were related to activity improvement (step count).



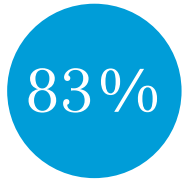
Nearly 50% made immediate changes upon receiving their results. These changes were mainly nutrition related.

2 National Library of Medicine, Impact of Lifestyle on Health - <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4703222/>

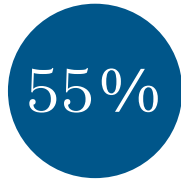
3 World Health Organisation, Preventing Cancer - <https://www.who.int/activities/preventing-cancer>

User engagement during the pilot

Notably, users kept returning to the app, indicative of the value they derived from the GenePlanet service. GenePlanet’s dynamic platform Health Intelligence offered regular communications and new updates, to which users showed a positive response.

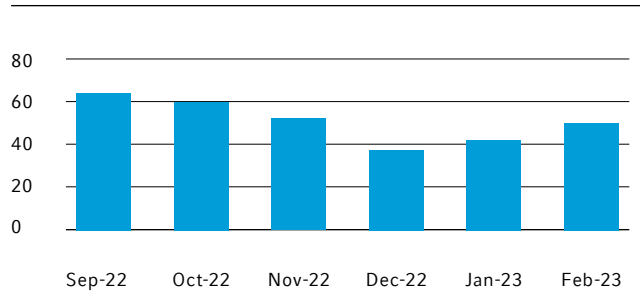


83% retention:
Retain and engage month over month (average).



55% average stickiness:
55% of users who visited monthly also engaged on a weekly basis.

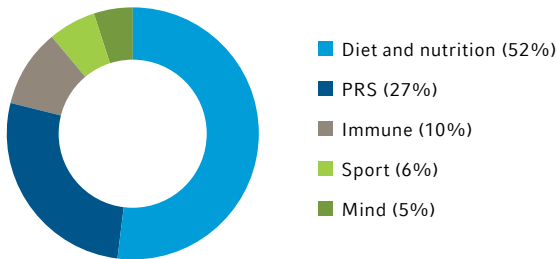
Weekly Stickiness
over months



In total participants visited 41,487 pages (669 pages per user/ 4 pages viewed per user per day).

While users predominantly expressed interest in diet and nutrition analysis (MyLifestyle), there was also a notable preference for health results. **95%** of participants opted in for MyHealth, emphasising its attractiveness of getting information about personal risks for different diseases, even though it was an optional feature.

Participant interest
in %

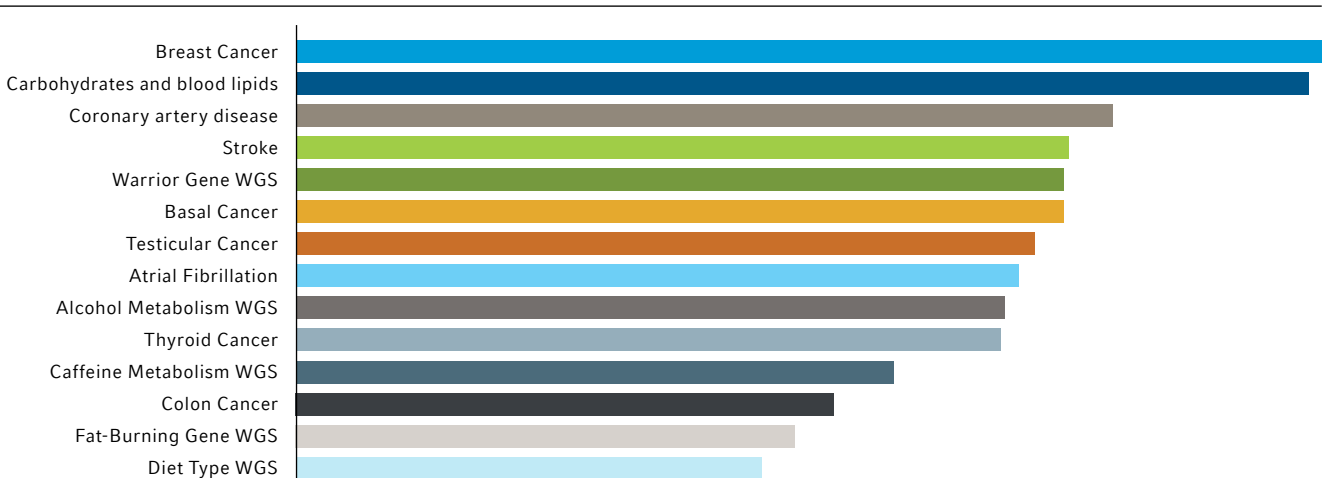


“Yes, I am more aware about my body needs and for the first time in my life I am tailoring my diet and lifestyle to match my genetic results rather than endlessly trying what works for others.”

Pilot participant

Health analysis captivated users the most, alongside nutrition, and garnered the highest views. The top 15 viewed in Health analysis were:

The top 15 viewed in Health analysis
in %



Among the analyses, **breast cancer** received the most attention, averaging 12 views per user.

- Over **50%** of participants have a **Balanced type** of Warrior gene (remain at their optimal performance even under pressure).
- **90%** of participants have a lower likelihood of good sleep.
- **Over 90% found the process easy**, valuing the recommendations.

Users noted the ease of accessing insights with very limited effort, calling out the good service provided.

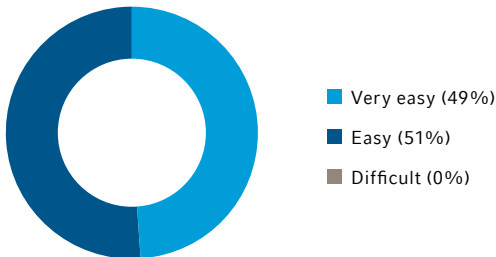


Only 1 participant reported that they found taking saliva sample to be a bit difficult, in terms of providing the amount required.

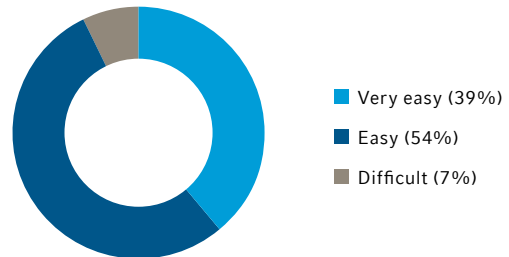
“Just very interesting and intriguing how they can tell so much from one small sample.”

Pilot participant

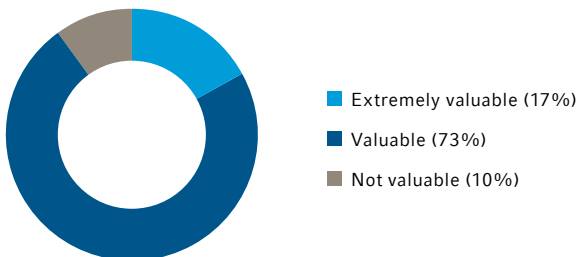
How easy was the app download and account set up?



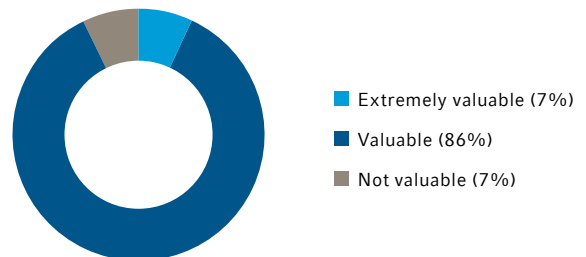
How easy was taking a DNA sample?



How valuable did you find your results and recommendations with GenePlanet?



How valuable did you find the blood marker interpretation?



Over **90%** of participants found value in the recommendations, with nutrition-related suggestions being deemed the most useful. However, the greatest impact was observed with health-related recommendations, and participants also highly appreciated the interpretation of blood markers.

“Great to have full bloods performed as simply no time in 'real life' to schedule such things in. The cancer risk results have been really eye opening and have made me take steps to lower my risks going forward. Truly invaluable.”

Pilot participant

Value of recommendations

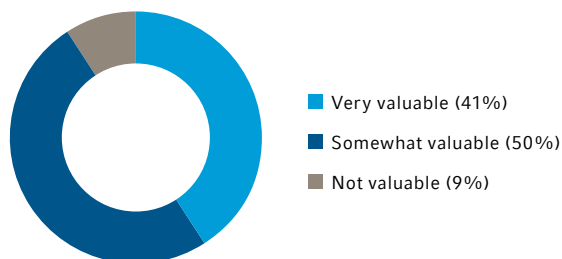
Many users found the service to offer a wealth of information, particularly regarding lifestyle improvements tailored to genetics. They appreciated the insights on risk profiles, genetic predispositions, and areas of health they hadn't previously considered.

Feedback reflects high satisfaction

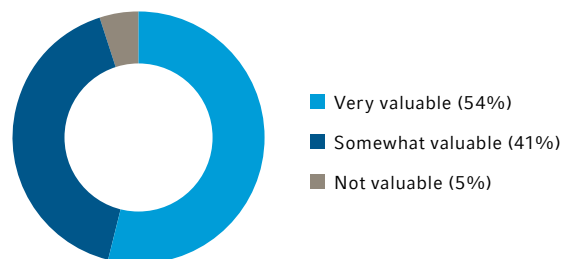
71% would recommend GenePlanet

This feedback shows satisfaction with delivering complex insights in comprehensive, understandable, and actionable ways.

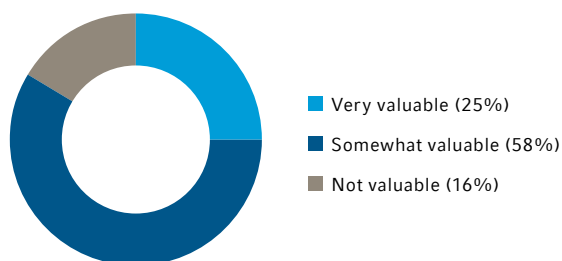
MyLifestyle



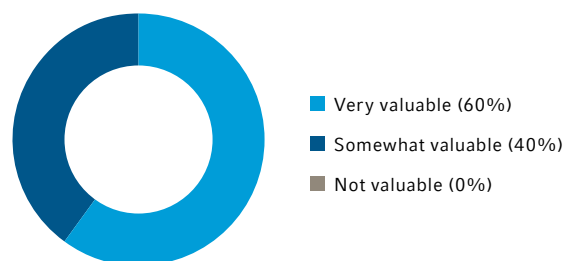
MyHealth



Health Score⁴



Blood Test



“I thought the ‘MyLifestyle’ section was the most interesting, in particular the Body and Mind as I have not seen that kind of information before.”

Pilot participant

Diet and nutrition insights

This section was highlighted by many as being of significant value.

- Users appreciated insights into their body's responses to certain foods (e.g., saturated fats) and genetic predispositions (e.g., fat-burning gene, susceptibility to iron overload).
- The dietary recommendations and insights, such as those related to gluten sensitivity and vitamin metabolism, were noted as particularly helpful.
- Some users took action based on these insights, like adjusting their diets or adopting supplements.

⁴ The chart doesn't total to 100% due to rounding.

Highlights of blood results

- Several users mentioned the value of the blood test results, particularly around cholesterol, thyroid activity, protein levels, and lipid profiles.
- Many appreciated the convenience of obtaining a comprehensive blood test through the platform, particularly when they had limited time in their daily lives.

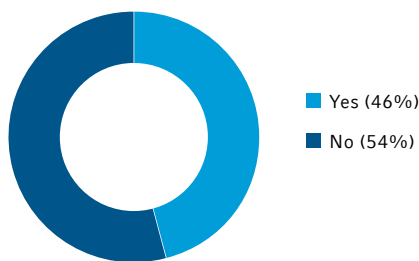
50% of participants implemented changes in their lifestyle

These initial results demonstrate DNA testing’s potential to inspire meaningful lifestyle changes, indicating promising future user engagement and behaviour modification. Almost **50%** began implementing lifestyle changes immediately after receiving DNA results, with dietary adjustments being the most common. Participants who reported no changes primarily attributed their inaction to a lack of time.

Expert recommendations

Genetic analysis reveals an individual’s genetic predispositions towards certain traits, conditions, or preferences. However, merely identifying these predispositions isn’t enough; the true value lies in the actionable recommendations that accompany the findings. These recommendations provide tailored advice based on one’s genetic makeup, guiding individuals on lifestyle changes, dietary choices, or preventative measures to optimise their well-being.

Did the pilot help you make any positive changes in your lifestyle so far?



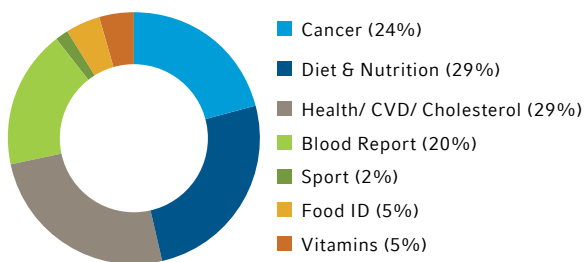
“So far information about my diet and nutrition. It turned out for example I have an issue with gluten which I wasn’t aware before and it was clear why I always was too high on iron in my blood tests - I am susceptible to iron overload so I have changed my diet and lifestyle.”

Pilot participant

Even though MyLifestyle Diet & Nutrition was the top-viewed chapter, a significant **73%** of the most impactful insights are centred around health and blood reports, a trend evident from the high level of engagement with the app.

Blood markers for health status check

Which insights had the most impact on you?⁵



Pilot participants had an opportunity to utilise the blood report within the app. This report explains blood markers, offering a view into an individual’s current state of health.

Beyond just presenting data, these markers can indicate whether a genetic predisposition has manifested in real-time health conditions. Furthermore, selected markers from this report contribute to the overall health score, reinforcing its significance in evaluating one’s well-being.

Serving as a complementary tool to the results of genetic testing, this blood report bridges the gap between genetic potential and actual health outcomes. **98%** of respondents see potential in GenePlanet to improve sales. In a survey conducted by Hannover Re among participants, the various products (My Lifestyle, My Health) and features (Blood biomarker, Health Score) are recognised as beneficial as part of an insurance proposition for a range of insurance product types.

⁵ The chart doesn’t add up to 100% because some participants provided more than one response

“I thought the ‘MyLifestyle’ section was the most interesting, in particular the Body and Mind as I have not seen that kind of information before.”

Pilot participant

Do you think offering GenePlanet as part of an insurance product would have a positive impact on sales?

Among the participants surveyed, **98%** recognised the potential of GenePlanet, with nearly **50%** expressing confidence that incorporating their offering into an insurance product could boost sales.

Which of these products could be a good fit for different types of insurance policies?

We asked participants which GenePlanet benefits and services would be suitable for inclusion in insurance products within the Life and Health sector.

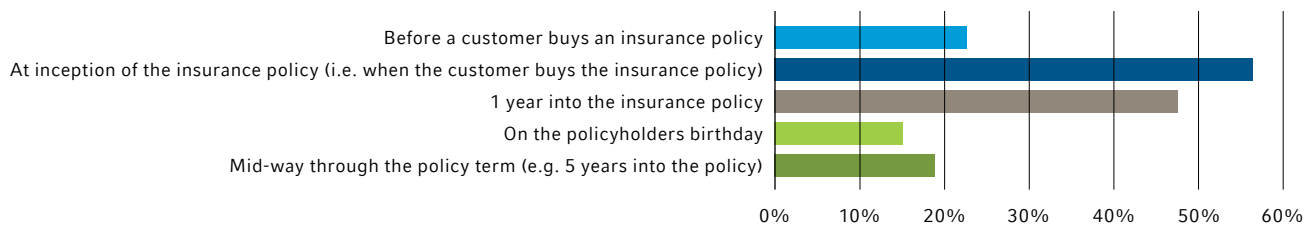
‘MyHealth,’ which includes 20+ analyses and detects potential disease risks such as cancer and cardiovascular risks, received strong support, with **84%** favouring it for Health Insurance, **81%** for Critical Illness Insurance, and **74%** for Life Insurance. Giving policyholders a deep understanding of their risk factors when it comes to specific diseases was seen as the most valuable addition to a policy.

‘Blood biomarkers,’ offering insights into the current state of a policyholder’s health also scored well, **77%** considering it a valuable addition for a Critical Illness plan, and **66%** favouring adding it to Life Insurance.

‘MyLifestyle’ which gives insight into the impact that factors such as diet and exercise are likely to have on an individual’s health, and the overall ‘Health Score’ were seen as valuable, but not to the same extent as the two tests above.

GenePlanet is most advantageous when offered early in a policy’s lifespan

When should an insurer offer GenePlanet to its customers?



Generally, there was a view that GenePlanet services should be offered early in the policy. Another option, which wasn’t available as part of the questionnaire, could be to offer different parts of the GenePlanet products and features over time (e.g., every 6 months, every year etc.) as part of ensuring sustained engagement. During follow-up interviews with participants, this was received very positively as an alternative option, mostly suited to MyLifestyle. Adopting this approach would encourage the user to focus on one area at a time and may result in further improvements to ongoing, actionable engagement through providing regular and “digestible” content.

“Offering GenePlanet 1 year in helps to reduce the number of people taking out the policy just to get their DNA results etc. and then lapsing the policy once they get their results. However, it provides the offer early enough to make it seem tangible.”

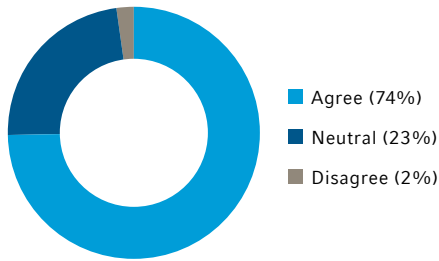
Pilot participant

Empowering healthier lives

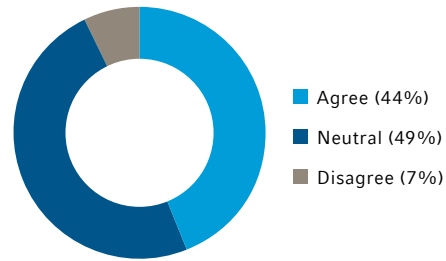
Decreasing claims through positive reinforcements

Implementing premium adjustments to reward and incentivise healthy behaviours. 74% of respondents believed that incorporating GenePlanet into Life and Health Insurance products could enhance policyholders' health and wellbeing. Some insurers offer products where the premium may increase or decrease in response to physical activity or health. These are usually measured through tests or wearables. With this in mind, we asked whether the Health Score⁶ could be used in a similar way.

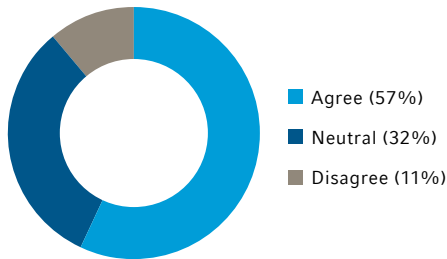
Incorporating GenePlanet into Life and Health insurance products could have a positive impact on policyholders' health and well-being?⁷



Incorporating GenePlanet into Life and Health insurance products could help to reduce lapse rates (help to stop customers leaving their insurer)?



If we link the GenePlanet Health score to insurance premium adjustments or policyholder rewards, would it make the insurance product more appealing?⁷



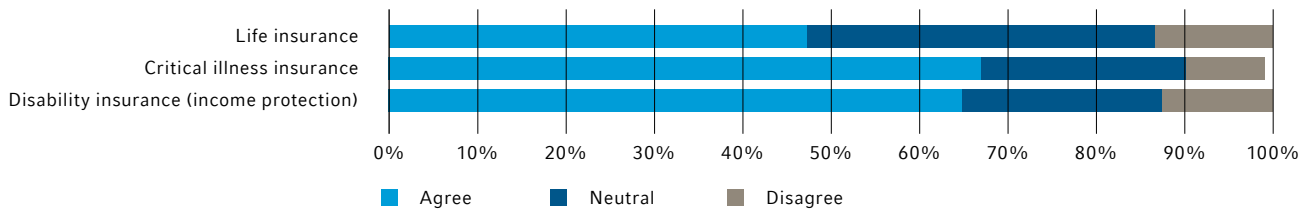
“Using GenePlanet as part of a health and well-being offering post-issue could certainly help people make more positive health and lifestyle choices, which could in turn reduce the likelihood of a claim from death or serious illness etc. It could also keep the insurer engaged with their client throughout the policy term and therefore reduce lapse rates.”

Pilot participant

Over 65% of participants confirm that GenePlanet could improve policyholders' health and reduce claim costs, especially related to critical illness insurance.

“The inclusion of GenePlanet has the potential to decrease claims costs”⁷

Views on this statement for each of the following insurance products



⁶ Health Score includes components such as physical activity. It does not include genetic results.

⁷ The chart doesn't total to 100% due to rounding.



The synergy of Hannover Re's business model and geneplanet partnership

Unlocking insurance opportunities

Hannover Re sees the potential to help customers live healthier and longer lives and as a result, reduce claims costs for insurers, all while simultaneously boosting new business sales and retention rates.

Customer engagement and persistency

- Especially if GenePlanet's offering is staggered over time.
- Regular updates of GenePlanet's analysis, which creates ongoing engagement and adds value.

Sales volume increase

- Promoting insurance packages with GenePlanet solution as value-add benefit to create a market differentiator / USP.
- Cross-selling or upselling opportunities.

Claims cost reduction

- The potential to focus on preventative healthcare approaches for cardiovascular and cancer which could lead to reduced morbidity/mortality.
- Consider more specific targeting, e.g., at certain stages of the policy lifecycle.

Additional opportunities

- Leveraging pharmacogenetics and advanced cancer screening encourages early and optimal health interventions, leading to better outcomes for all.

Insights from the Pilot

Educate advisors and customers

Education for advisors and customers is key, especially before releasing health test results, to ensure the insurance partner can provide adequate support, including early screening options. Providing follow up services is also essential, particularly the likes of telehealth services where people may want or need additional support.

Align with objectives

Consider refining the content for specific packages in line with the insurer's goals and target customers at certain stages of the policy lifecycle. For example, some customers may prefer lifestyle insights relative to health insights, whilst others may prefer more curated health-specific packages such as cancer or heart health.

Potential Risks

Anti-selection

Anti-selection refers to the situation when individuals with a higher-than-average risk of loss are more likely to purchase insurance than those at a lower risk. Offering tests after they've already signed up for insurance can help avoid this issue although customers could take a direct-to-consumer genetic test at any point.

Policyholder behaviour

There is a concern that less healthy individuals who come with higher risks may be more inclined to keep or retain their insurance policies. Those who are lower risk and healthier may not be inclined to increase their cover levels. Overall, this could result in a disproportionately high number of policyholders with higher risks and therefore, impact the likelihood of future claims. It is worth noting though, that, policyholders and consumers can take a direct-to-consumer genetic test at any time and have no obligation to disclose this to the insurer. Therefore, this risk could already be present.

Result Interpretation

Customers, even the healthy ones, might misinterpret results. Hence, providing guidance on result interpretation before releasing them, especially with health outcomes becomes crucial. In the pilot, consultations were provided to participants. Additional advanced material could also be pre-shared with the customer before results are released to offer additional guidance and help with their understanding.



Offering tests after they've already signed up for insurance can help avoid some potential risks although customers could take a direct-to-consumer genetic test at any point.

About GenePlanet

GenePlanet started in 2008 with the dream that more and more people around the globe would have the chance to discover their DNA.

GenePlanet preventative health solutions are utilised by the largest global companies in health and medicine, insurance and corporate wellness to drive customer engagement and provide personalised guidance and support to achieve positive behavioural change, improved health, and well-being.

Constant growth

100,000
customers

More than 100,000 satisfied customers

15
years

More than 15 years on the market

35
countries

Present in more than 35 countries worldwide

Own
R&D

In-house R&D environment

Partners

SYNLAB



Allianz

SAVA
ZAVAROVANICA

UNIQA

Awards



Gospodarska
zbornica
Slovenije

eurostars™



START-UP SLOVENIA

FT 1000
Europe's Fastest
Growing Companies

Highlights of existing insurance cooperation cases

83% of sales agents state that GenePlanet solutions help them sell products to customers.

21% Policy retention increase based on a year-to-year comparison.

23% Higher sales of life package and additionally increased % of customers choosing optional rider.

94.5% of clients value the combination of GenePlanet service with their insurance package.

92% of insurance agents think GenePlanet services fit well with insurance products.

4.5/5 satisfaction with GenePlanet DNA tests, rated by users on independent rating platform Trustpilot.



At Hannover Re UK Life Branch, you'll find that we are somewhat different.

Hannover Re

Hannover Re, with a gross premium of more than EUR 33 billion, is the third-largest reinsurer in the world. It transacts all lines of property & casualty and life & health reinsurance and is present on all continents with more than 3,500 staff. Established in 1966, the Hannover Re Group today has a network of more than 170 subsidiaries, branches and representative offices worldwide. The rating agencies most relevant to the insurance industry have awarded Hannover Re outstanding insurer financial strength ratings: Standard & Poor's AA- "Very Strong" and A.M. Best A+ "Superior".

Hannover Re UK Life Branch

At Hannover Re UK Life Branch, you'll find that we are somewhat different. As part of a strong, secure, global reinsurance group, we have the unyielding support from a world-class organisation. From standardised reinsurance products to tailor-made financial solutions, we prioritise long-term partnerships over short-term expediency, profitability over premium volume, and excellence over adequacy.

We're dedicated to a philosophy that promotes access, inclusion and certainty, helping our clients develop and deliver innovative new products that provide clear value to the broadest possible cross-section of society.

Based on this approach, we've been pioneering new markets and new approaches ever since we began life back in 1984. We aim to create mutually profitable long-term client partnerships by responding to our clients' issues and aspirations with innovative and effective solutions that genuinely give them what they need.

Our clients trust us to deliver the information, the ideas and the insights on which to base products that can open new revenue streams and deliver on their promise.

Life & health digital business accelerator

Hannover Re's global Life & Health Digital Business Accelerator (L&H DBA) is part of our global cross-functional innovation network focused on harnessing technological developments to unlock value for insurers and customers.

The L&H DBA's current focus areas include:

1. **Digital distribution:** Leveraging digital technologies and data-driven insights to create distribution models that expand insurance coverage by attracting new customers to insurance, and offering additional insurance opportunities to existing customers.
2. **Digital health:** Embedding digital health technologies into the insurance value chain to enhance risk assessment, cover emerging medical risks and help customers to live healthier, longer lives.

The L&H DBA is based in London. The team works with our local Hannover Re offices worldwide, our insurance clients and our global partners to catalyse digital solutions that add value and secure competitive advantage across the life and health insurance value chain.

Contacts

Watch the webinar and get in touch to discuss. Our webinar explores these ideas in more detail and is [available to watch here](#). If you would like to discuss any of these points in more detail, please get in touch with us.



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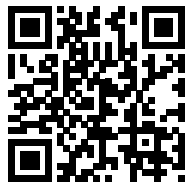
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Follow us on LinkedIn to keep up to date with the latest Life & Health news.



More from the pilot participants

Usefulness

“I recommend a DNA test, get to know the relative risks associated to your genes and incorporate risk reducing habits and diet in your everyday life.” - Pilot participant

“I think most people would find it generally interesting. I Would recommend it to someone trying to improve their lifestyle, particularly if they’re struggling to find changes that work for them so far.” - Pilot participant

“Understanding my vitamin and hormone deficiencies led to useful insights. Now I have supplements and feel much better. I can also see where I am strong and need to improve.” - Pilot participant

“Very useful to find out predispositions in order to improve your lifestyle with a meaningful aim.” - Pilot participant

Lifestyle changes

“Yes, I am more aware about my body needs and for the first time in my life I am tailoring my diet and lifestyle to match my genetic results rather than endlessly trying what works for others. High triglycerides and not enough cardiovascular exercise which I am actively now working on improving.” - Pilot participant

“I thought the follow up consultation was great. The one-to-one session helped me identify some food groups to include and some to avoid.” - Pilot participant

“I increased my protein intake and become more active.” – Pilot participant

Production evaluation

“As a reinsurer we still need to define the value proposition of this kind of testing. I believe the value lies predominantly in the ability to engage policyholders during the lifetime of their policy which may improve lapse rates while possibly driving behaviour change that impacts on morbidity and mortality.” - Pilot participant

“I’d expect this product to result in higher sales, but with a risk of lower persistency. Offering GenePlanet 1 year into the policy makes the most sense, as it’s soon enough to be tangible to the policyholder but far away enough to reduce lapse risk.” - Pilot participant

“Genetics data would be useful for assessment but couldn’t use (sic) for individual pricing. Blood biomarkers likely give a better indicator of certain major risks e.g., cardiovascular as it also reflects diet and lifestyle, which are as significant if not more when it comes to health outcomes.” - Pilot participant

“Offering GenePlanet 1 year in helps to reduce the number of people taking out the policy just to get their DNA results etc and then lapsing the policy once they get their results. But it offers it early enough that it seems tangible (I don’t know if people would really even take the GenePlanet offering into consideration when purchasing a policy if they were only going to get it after 5 years).” - Pilot participant

Appendix 1

NGS made genetic testing widely accessible

Sequencing, the process of analysing genes, has been revolutionised by Next-Generation Sequencing (NGS).

This technology has improved our understanding of the genome and drastically reduced the cost of sequencing a human genome from **\$100 million in the early 2000s to about \$600 in 2022.**⁸

Think of sequencing as you would read a book: you can read the entire book, focus on important chapters, or just look for specific keywords. This is how the application of NGS differs. Genetic tests can:

- target specific genes or regions (Targeted),
- focus on the exons, 2% of the genome - Whole Exome Sequencing (WES), or
- cover the entire genome - Whole Genome Sequencing (WGS).

Due to its exhaustive and future-proof nature, WGS is considered the optimal choice for genetic analysis. Once sequenced, the data is permanently available for multiple future analyses.



The future of genetics: personalised care, preventative medicine, and AI-facilitated genomics.

NGS has revolutionised our understanding of human genetics and improved diagnostics, propelling a significant shift towards personalised medicine. Genetics can help predict disease risk and response to treatments using genetic profiles, lifestyle, and environmental data, facilitating proactive healthcare.

As genetic testing grows, significant research-led data analytics can identify disease risk patterns and therapeutic targets, driving healthcare innovation.

UK's genomic industry is worth over £5bn and is expected to continue to grow.

The UK is leading the genomics revolution in the 21st century with the sector projected to reach £50 billion by 2040.⁹ The rise of Lifestyle DNA tests, focusing on ancestry, lifestyle, and health risks, has been a driver behind this growth, capturing the interest of approximately 37 million consumers since test kits became available online.¹⁰

The global direct-to-consumer genetic testing market alone is expected to reach 8.8 billion USD by 2030.¹¹

8 National Human Genome Research Institute, DNA Sequencing Costs: Data - <https://www.genome.gov/about-genomics/fact-sheets/DNA-Sequencing-Costs-Data>

9 Genomics Nation, A benchmark of the size and strengths of the UK genomics sector (July 2021) - <https://www.bioindustry.org/static/2b60cf38-020b-4a97-8d8f84bb464b8b7d/BIOJ8942-Genomics-Report-210728-WEB.pdf>

10 The DNA Geek, DNA Tests - <https://thednageek.com/dna-tests/>

11 Grand View Research, Direct-to-Consumer Genetic Testing Market [2023 Report] - <https://www.grandviewresearch.com/industry-analysis/direct-to-consumer-genetic-testing-market-report>

Appendix 2

GenePlanet's preventative solutions

GenePlanet's genetic tests, combined with expert recommendations, provide actionable tools for effective, personalised preventative healthcare.

Health Intelligence innovative features

Health Score: Lifestyle tracker

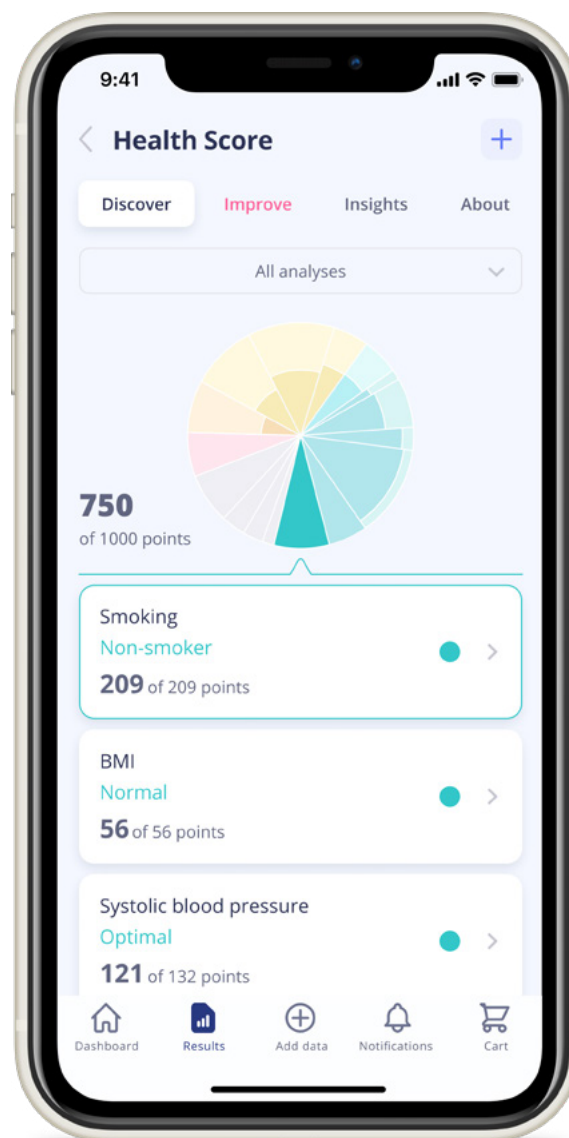
A genetic predisposition provides an initial framework, but lifestyle choices and environmental conditions determine actual health status.

Health Score (HS) provides a comprehensive assessment of an individual's current health state and serves as a dynamic health tracker.

Each factor in the Health Score is assigned a weight based on how strongly it is associated with the overall risk for health issues. This is calculated based on questionnaires for various factors:

- Measurements: Body Mass Index (BMI), waist circumference, heart rate at rest and blood pressure
- Tracked: Steps
- Habits: Activity, diet, sedentary lifestyle, alcohol intake, stress, sleep, smoking
- Blood markers: TG/HDL – the ratio between triglycerides (TG) and high-density lipoprotein (HDL) cholesterol in the blood. LDL – low-density lipoprotein which carries cholesterol from the liver to cells in the body.

The more data it has, the more accurate it is. The purpose of the health score is to inform individuals and motivate them to adapt to a healthier lifestyle.



MyHealth and PRS

MyHealth provides 21 health-risk analyses for cancer, cardiovascular disease, and immune system issues based on your genetics, guiding you on when to seek preventative screenings for future health assurance.

PRS (Polygenic Risk Score)

The sections on cancer risk and cardiovascular disease risk use a method called the polygenic risk score (PRS). By combining the effects of many selected genetic variants, we create a clear and accurate calculation (PRS) that helps identify the risk, allowing for early action and prevention.

PRS results for cancer are presented as:

Relative risk (RR)

Estimates your risk compared to the average risk in the population.

RR depends only on your genetics and identifies your genome’s “weak spots” and “strong points”. It is the most personalised result available.

However, the actual risk of getting the disease also depends on how common the disease is in general. This is taken into account by the two measures of absolute risk.



Five-year absolute risk (5yAR)

Estimates the probability of developing the disease in the next 5 years



Five-year absolute risk (5yAR)

Estimates your probability of developing the disease during the next five years.

While relative risk estimation enables you to compare your genetic predisposition to that of other people, your 5yAR additionally considers your age, sex, and how common the disease is in general in your population.

Although there is a typically recommended age for screening, it's important to note that if your 5-year absolute risk of the condition increases, you may benefit from undergoing the screening at an earlier stage.

Lifetime absolute risk

Lifetime absolute risk considers the same factors as the 5-year absolute risk, but it estimates your probability of developing the disease until you reach 85 years of age.

Lifetime absolute risk

Estimates the probability of developing the disease in your remaining lifetime.

YOUR LIFETIME RISK:

24.1%

AVERAGE RISK: 15.3%

MIN POSSIBLE RISK: 2.3%

MAX POSSIBLE RISK: 87.2%

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