



Empowering better decisions at lower costs with real-time health data



# Power Your Offering with the #1 Software for Health and Wellness Checks

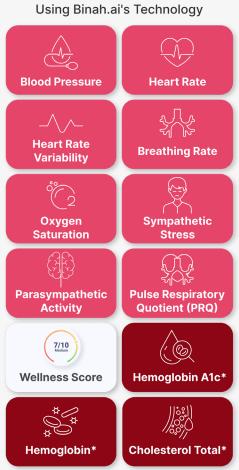
Binah.ai's award-winning Health Data Platform offers insurers an unparalleled advantage by transforming smartphones or tablets into health and wellness monitoring tools. Our software-based solution empowers insurers to remotely measure a comprehensive range of health and wellness indicators, including our revolutionary bloodless blood tests. By opting to share their health data, policyholders can enjoy better, faster, and more personalized health and wellness services.

#### **Spot and Continuous Checks**

Choose from spot checks, conducted via 30-60-second selfie videos or continuous checks using a Polar Verity Sense™ optical heart rate sensor, allowing you to tailor the approach to best suit your organization's needs.

#### **Boost Engagement with Binah Wellness Score**

Empower your clients to get a user-friendly score designed to foster a proactive approach to health and wellness management. This score, based on Binah.ai's analysis of key biomarkers, serves as a tangible indicator of overall wellness, encouraging users to track their progress and engage more actively with their health.



Biomarkers You Can Measure

\*Under research, more coming soon

### **Empower Proactive Prevention and Risk Reduction**

Binah.ai's cutting-edge health and wellness checks offer insurers a unique advantage in proactive risk reduction. By measuring and sharing their health data, policyholders can gain valuable insights and access expedited, prevention services and suggestions personalized to suit their unique needs, while insurers gain better insights into risk levels and help policyholders reduce their health risks.

### Make Underwriting More Efficient with Real-time Health Data

Reduce reliance on outdated legacy datasets and make underwriting faster, cheaper, and more efficient. Our remote vital signs and stress monitoring technology reduces the need for dedicated hardware and cuts costs on medical equipment and personnel, allowing for faster, cheaper general health and wellness checks. Use remote checks to triage STP applicants, improve dynamic underwriting and gain real-time insights into applicant or client health status.

### **Shift from Claims Payer to Lifelong Wellness Partner**

Help your clients stay engaged on their wellness journeys. Empower them to conveniently measure their health data on the go, during exercise, or even while asleep, and enable them to track their progress from their smartphone or tablets. Use insights shared by clients to gamify wellness platforms, deliver personalized suggestions and rewards, and pave the way to a lifelong relationship with clients by helping them mitigate health risks so that they can enjoy lower premium prices.

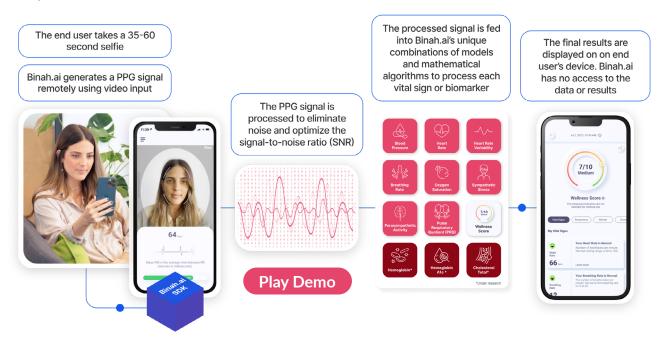


### How Binah.ai's Technology Works

Binah.ai harnesses a unique technological mix of signal processing, advanced AI, and a proprietary set of algorithms developed and perfected in-house over nearly a decade to conduct health and wellness checks. The health and wellness indicators are measured using photoplethysmography (PPG), a well-established, non-invasive optical technique used for measuring physiological health parameters. Stress levels are calculated using the Baevsky Stress Index. Delivering consistent, high-quality results in under a minute, Binah.ai's technology supports all Fitzpatrick scale skin tones and is agnostic to sex.

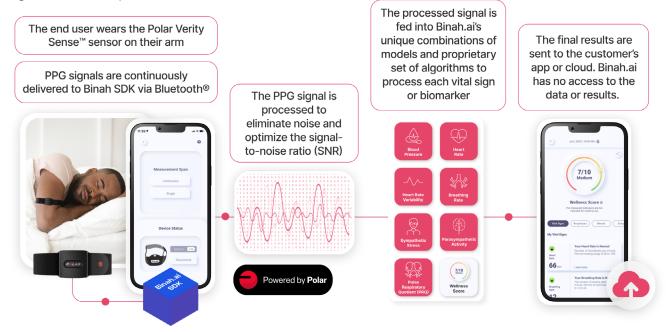
### Video-Based Spot Checks Using Remote PPG (rPPG)

With Binah.ai's video-based software technology, delivered as Binah SDK (Software Development Kit), organizations can empower anyone to take a health check in 35 to 60 seconds by simply looking at the camera of their personal mobile device.



### **PPG-Sensor Based Continuous Checks, Powered by Polar**

For situations where continuous measurements are needed, such as chronic disease management, employee wellness, or home hospitals, organizations can enable end users to measure and share continuous health data using the Polar Verity Sense™ heart rate sensor.





### Why Binah.ai?

#### **Robust Scientific Foundation**

Developed by a team of experts and PhDs in fields such as medicine, engineering, deep learning, mathematics, physics, and biotechnology, Binah.ai's technology has been rigorously tested both in labs and by independent third parties.

### **Unique Edge Architecture**

Leveraging edge computing, Binah.ai's solution operates directly on devices, eliminating cloud dependencies and costs, and delivering stable performance without the need for internet connectivity.

#### **No Privacy Concerns**

Thanks to our distinctive edge architecture, data ownership remains entirely with you, enhancing end-user data privacy and simplifying GDPR/HIPAA compliance. **Binah.ai does not have access to end user data.** 

#### Flexible Health Checks

As the sole provider of both spot and continuous monitoring options, our health and wellness checks are designed to adapt to your organization's specific needs.

#### **Consistent High-Quality Performance**

Our technology consistently delivers high-quality results, bolstered by our confidence level feature that ensures reliability. Binah.ai is currently undergoing the regulatory approval process as a Software as a Medical Device (SaaMd) through the FDA (USA) and additional regulatory bodies.

#### **Universal Accessibility**

Our technology is designed to be inclusive, unaffected by sex, skin tone, or location, ensuring equal access to all and empowering insurers to reach wider populations, including those in remote locations.

#### **Broad Compatibility**

Binah.ai's solutions are compatible with smartphones and tablets, allowing your customers to conveniently access health and wellness checks using devices they already possess.

#### **Proven Technology**

Deployed across the insurance, healthcare and wellness industries, Binah.ai's technology is already benefitting tens of millions of end users worldwide.

### **Optimal Delivery for Seamless Integration**

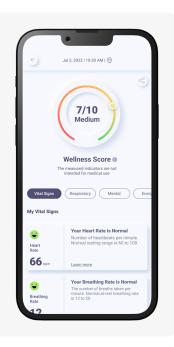
Our technology is provided as an easy-to-integrate SDK, complete with comprehensive documentation, reference applications, and continuous support from our customer success team, available to assist with your needs at any time

#### Binah SDK (Software Development Kit)

- Supports: iPhone 8 and up and iPad 6th Gen and all iPad models released afterward with iOS 14 and up; Android 8.1 mobile devices
- Web Application Support: compatible with Safari and Google Chrome on iOS, and Google Chrome on android - no app needed
- Support for landscape and portrait orientations
- Available through web application clients no app download needed

#### Binah Connect - PPG Sensor Support

Polar Verity Sense<sup>™</sup>





### Selected Insurance Use Cases for Binah.ai's Technology



Enhance self-reporting health questionnaires with real-time health data, collected remotely Improve risk management with hassle-free, real-time insight into your clients' health status

Make claims smarter and faster with historic health data shared by clients



Use remote, one-minute health and wellness checks to triage high and low-risk applicants

Boost engagement and support client wellbeing with a real-time monitoring solution, available 24/7

Get a 360° user profile with critical health data for better, more efficient, and value-added customer support

### Flag Critical Health Risks with a Spectrum of Health and Wellness Indicators

Parameter	Normal range (Age 18+)	Health issues associated with abnormal levels
Blood pressure	Systolic: <120	Heart attack, heart disease, stroke, kidney disease, poor cognitive function, dementia
The pressure of circulating blood against artery walls	Diastolic: <80	
Heart rate/ Pulse rate	60-100 bpm	Stroke, heart failure
How many times a person's heart beats per minute		
Heart Rate Variability (HRV)	SDNN: > 50ms	Stress, risk of cardiac events, oncoming sickness, nutrition and sleep patterns
The variance in time between heart beats represented by SDNN		
Oxygen saturation		
The amount of oxygen-carrying hemoglobin in the blood relative to the amount of hemoglobin not carrying oxygen	95% - 100%	Heart disease, interstitial lung disease, COPD, anemia, ARDS, pneumonia, sleep apnea
Breathing rate	12-20 bpm	Anxiety, fever, heart problems, respiratory conditions, including COPD, asthma, and pneumonia
The number of breaths a person takes per minute*		
Pulse-Respiration Quotient (PRQ)	5	Hyperventilation, cardiorespiratory issues
Heart rate divided by respiration rate, captures the complex state of cardio-respiratory interactions		

#### Sources

https://www.mayoclinic.org/diseases-conditions/high-blood-pressure/symptoms-causes/syc-20373410

https://www.ahajournals.org/doi/full/10.1161/01.cir.94.11.2850

 $https://www.hopkinsmedicine.org/health/conditions- and-diseases/vital-signs-body-temperature-pulse-rate-respiration-rate-blood-pressure \\ https://pubmed.ncbi.nlm.nih.gov/31647303/#:~:text=Abstract,complex%20state%20of%20cardiorespiratory%20interactions$ 



### **Enable Seamless Health and Wellness Checks**

### Scenario #1

### Underwriting / Onboarding

#### **General Health Assessment**

Remote self-assessment





Agent

Easily assess general health status by sending candidates a link to perform a 1-minute scan or empower agents with a real-time assessment tool

### **Instant Digital Scan**







Reduce churn and time wasted on health checks, and enhance questionnaires with objective, real-time health data

### **Analysis**





Advanced algorithms create individual insights

### **Decision Making**





Make smarter and faster decisions for each policy

#### Scenario #2

### Wellness Programs —

### **Initial Health Screening**





1 minute

Send clients a link to take a 1-minute health scan or have clients scan themselves using the insurer's app

#### **Help Set Personal Health Goals**





Help clients set measurable goals to improve general health status

#### **Boost Engagement**



Help clients stay engaged with personalized recommendations based on health data and progress

#### Goal Achievement, Maintenance and Rewards



Reward goal achievement and health improvements, and empower clients to maintain a healthy lifestyle



### Revolutionize Insurance with Real-Time Health and Wellness Monitoring



**Digital Transformation:** Streamline underwriting and claims processes with automation and support a 360-view of customers for an enhanced digital experience.



**Operational Efficiency:** Reduce the time and costs associated with manual health assessments, eliminating the need for expensive equipment and outdated datasets.



**Enhanced Risk Assessment:** Use real-time and historical health data and trends to make more informed risk assessments.



**Smarter Digital Twins:** Enrich digital twins with a wealth of high-quality real-time health and wellness data to enhance predictive analytics and personalized insurance.



**Revenue Growth:** Expand outreach to under-served populations and remote locations, opening up new markets and opportunities.



**Fraud Reduction and Claims Validation:** Utilize real-time and historical health data to authenticate claims more effectively and combat fraud.



**Short Time-to-Market:** Seamlessly integrate Binah SDK into your branding, apps, or web applications within days for immediate savings.



**Future-Proof Partnership:** Establish a lasting partnership that continues to enhance your offering with numerous health and wellness indicators in the pipeline for the coming years.



**Customer Convenience:** Make measuring and sharing health data as simple as taking a selfie-video, streamlining insurance processes with less paperwork and fewer calls and offering unparalleled convenience to both prospects and clients.



**Proactive Prevention:** Encourage clients to actively monitor their health data, facilitating the early detection and prevention of potential health issues.



**Engaging Wellness Programs:** Elevate wellness programs with gamification and personalized suggestions based on real-time health data. Use this data to set measurable goals and motivate clients with incentives like dynamic underwriting.



### Insurers Already Reaping the Benefits of Binah.ai's Technology

### GENERALI Generali Deutschland, the German business unit of Europe's largest insurance Group

In today's challenging landscape, Generali has a clear vision – future-focused and looking for continuous innovation, while always putting the customer first. Recognizing that health awareness is at an all-time high due to the pandemic, and with a drive to support its own customers in monitoring health status, Generali wanted to create a wellness application from scratch. The insurance giant wanted to align this solution with the nationwide push from the German government for an increasingly digitalized healthcare system.

"With this new digital solution, we put advanced analytics and Artificial Intelligence to the service of our customers, in a way that is affordable, fast, and easy. A new tool to promote prevention, which, as we learnt during the current Covid emergency, is of paramount importance, and to protect our customer's life and health."

Giovanni Liverani, CEO of Generali Deutschland



### momentum Momentum, one of South Africa's largest insurance companies

As a leading insurance company, Momentum has a broad vision to digitalize its value chain, and provide clients with intelligent, streamlined tools to monitor health vitals, improve insurance services, and early identify health flags, while getting better, real-insights into their clients' healthcare status. Momentum immediately recognized the potential of remote, video-based vital signs monitoring for their clients. This would provide a valuable stream of health data to them as a company, as well as offer customers and partners the tools to stay on top of their own health vitals and attain peace of mind.

"Binah.ai's technology provides our clients with a tool to measure key vitals and offers us alternative sources of health data to assist with early intervention and referral to our digital doctors if needed."

Margot Brews, Head of Health Risk Management at Momentum, South Africa





Sompo Japan Nipponkoa Himawari Life Insurance, one of Japan's largest insurance companies

"In particular, we aim to develop new healthcare services which enable customers to understand their own health status (such as stress) and get advice, by utilizing Binah's technology: data format-agnostic/signal processing/machine learning, and proprietary algorithms with existing medical/and health data. Binah.ai provides practical answers to critical information challenges, accelerating the path from data to insights. Binah's combination of signal processing, machine learning, and a proprietary, comprehensive back-end AI framework delivers best-in-class models in terms of accuracy, performance and stability."

Sompo Japan Nipponkoa Himawari Life Insurance

https://www.sompo-hd.com/~/media/hd/en/files/news/2020/e\_20201009\_2.pdf





## **Health Checks Anywhere**

Binah.ai's video-based Health Data Platform is the # 1 software for health and wellness checks. Reducing the need for dedicated hardware, it transforms smartphones and other camera-equipped devices into health and wellness monitoring tools. Binah.ai empowers industries, including insurance, healthcare, and wellness by offering a tool for end users worldwide to measure and share a wide range of vital signs and take bloodless blood tests. Binah.ai makes access to user-provided health data fast, simple and affordable and empowers organizations to provide preventive and personalized care and services at lower costs - to everyone, anywhere, regardless of ethnicity, sex or location.

For more information on Binah.ai, please visit: www.binah.ai or write to us at info@binah.ai

### **Industries We Empower**



















Insurance

Wellness

Healthcare

Pharma

Automotive

Consumer Electronics/IoT

Retail

Nutrition Cosmetics

### **Selected Partners**









#### **Selected Customers**















### **Certifications**







### **Selected Market Recognition**



Asia Insurance Awards 2023



DIA DIAmond Award 2022



CES Innovation Awards 2022



CES Innovation Awards 2020



GRAND CHAMPION NTT Data 10th Open Innovation International Contest 2020



DOMAIN CHAMPION NTT Data 10th Open Innovation International Contest 2020