

2020 Health Leadership Conference

FEBRUARY 12-14, 2020



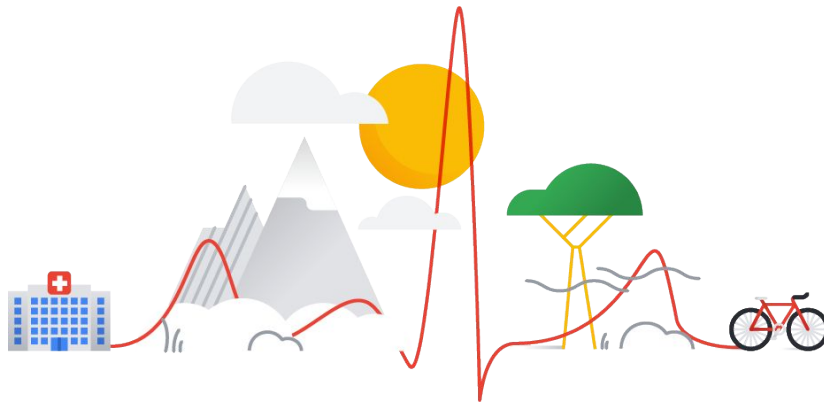


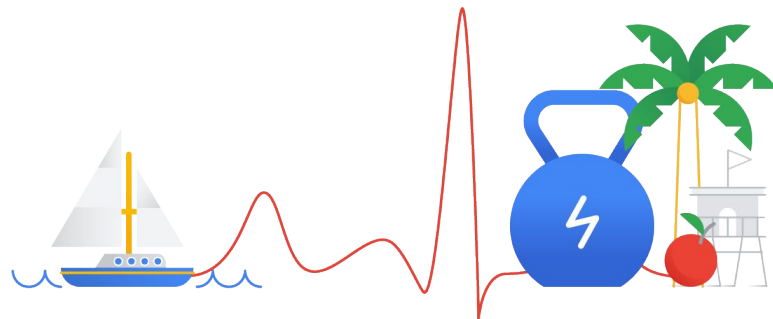
Heart of the Possible: Running for Your Life

NHC 2020 Health Leadership Conference

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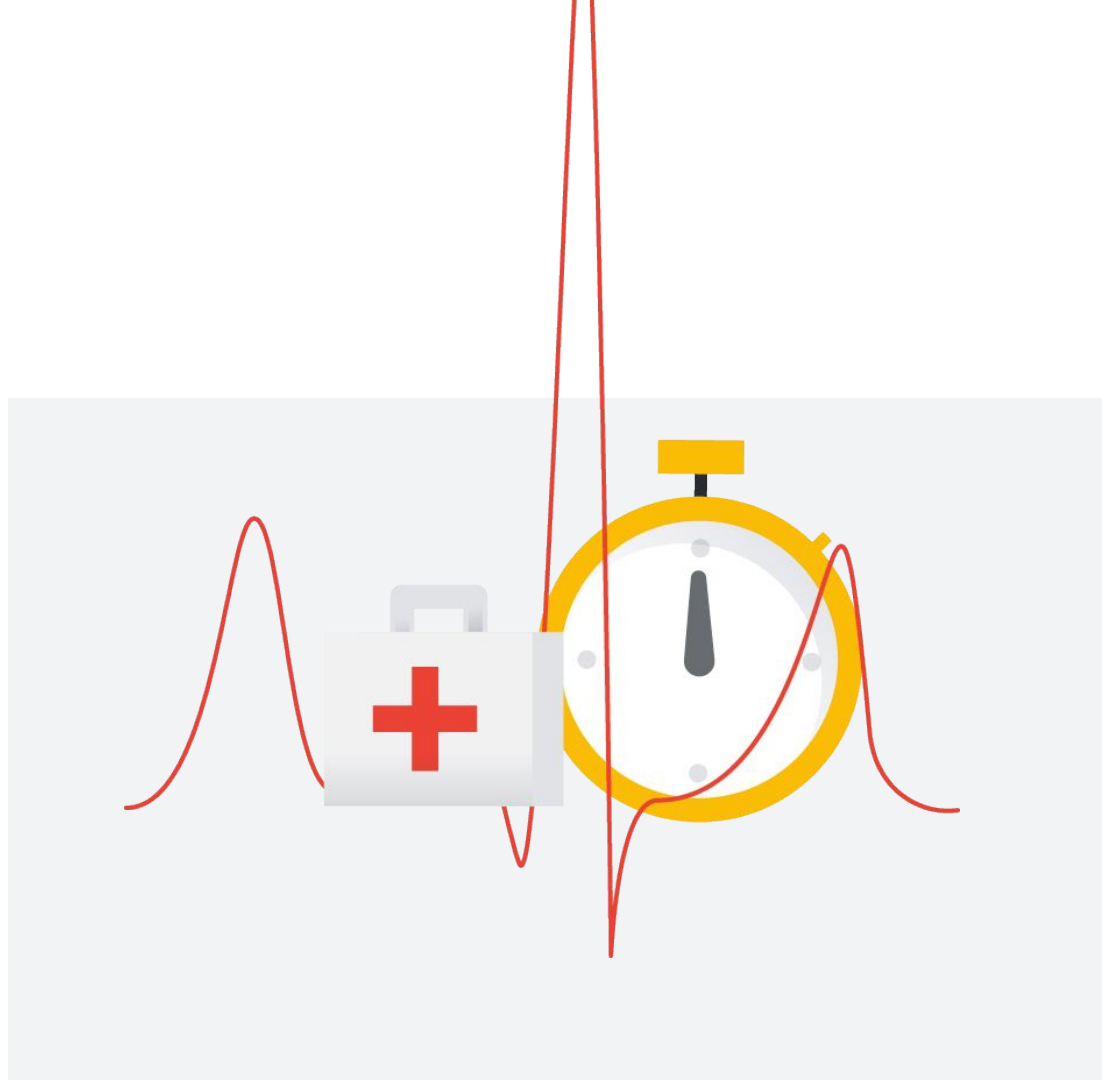
I could not
Figure how to
take my pulse.





270

Beats per minute







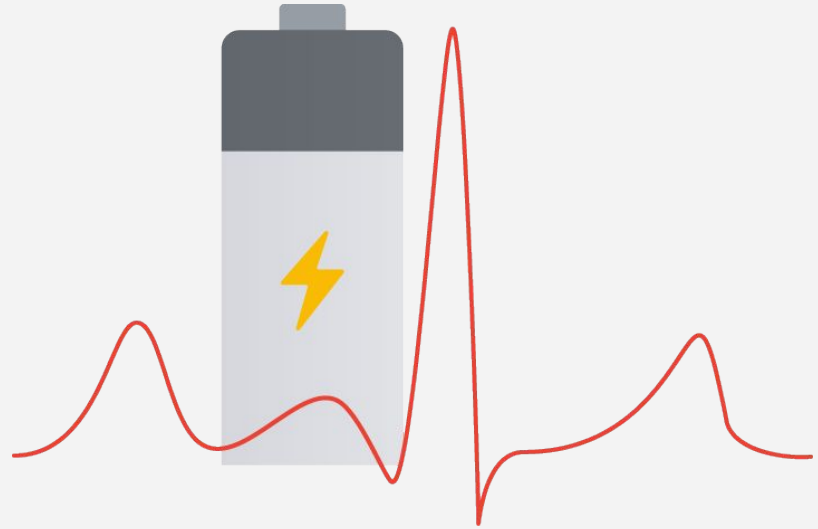
AV Ablation

(electrocution)



100%

Battery dependent

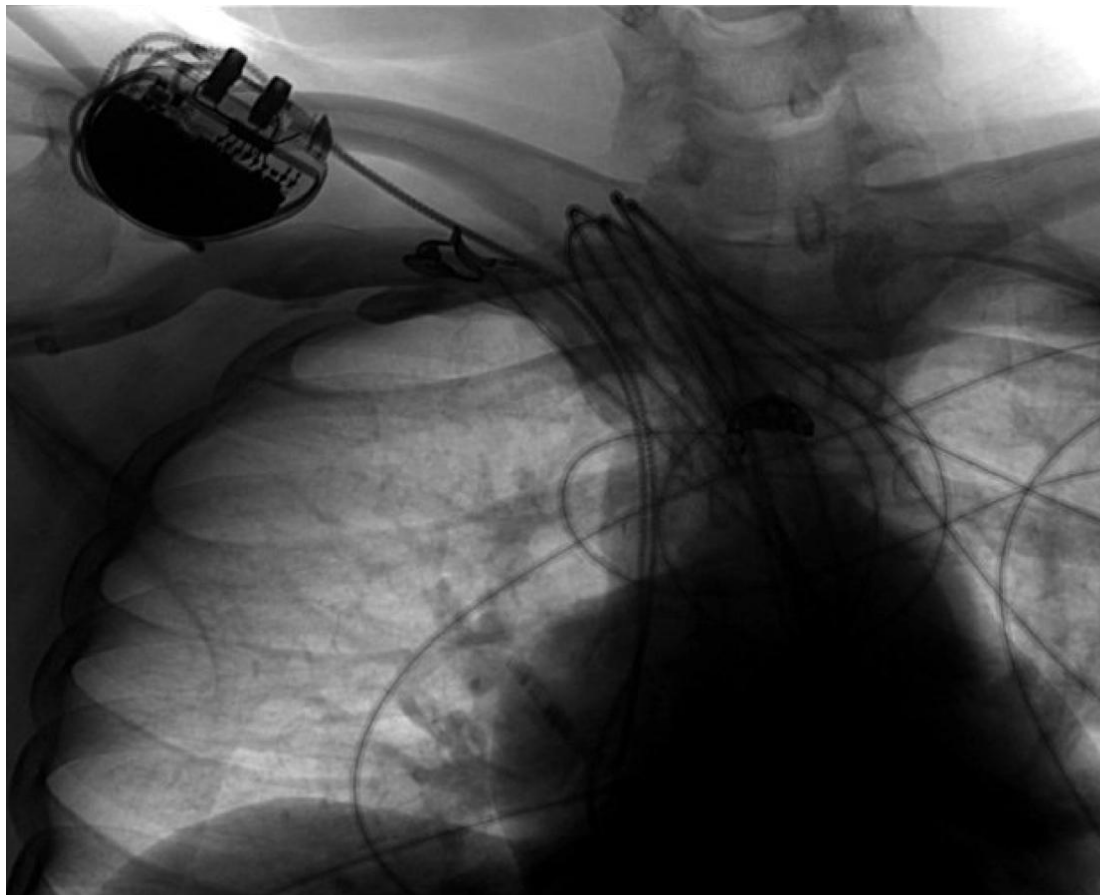


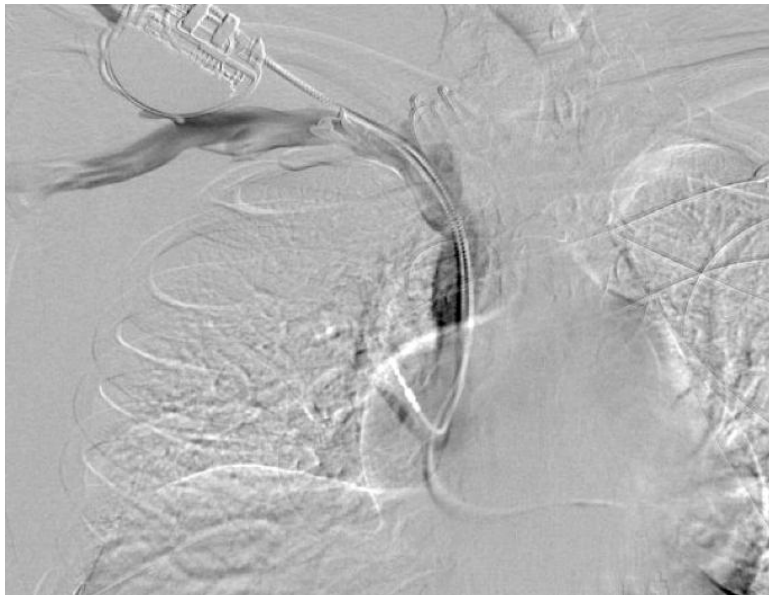
How do I feel?

Would I
ever wear a
swimsuit again?

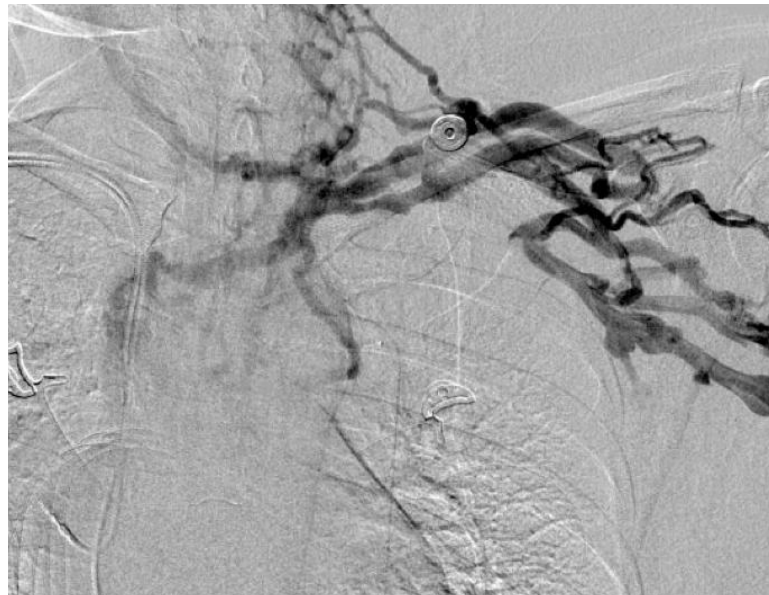
What would
a pacemaker
look like in my
chest?

6 pacemakers





Normal right side blood flow



Blocked left side blood flow

Am I really a
heart patient?

How do I prepare
for open heart
surgery?

I need a goal: **LOTOJA**
Classic bike race!

Glamour shots







Everything was going **so well...**





Leaking and bleeding internally



Vital systems crashed



I might not live



Right lung collapsed



Emergency bedside surgery



Back to ICU



Chest cavity filled up with blood



Blood transfusions



Lung surgery

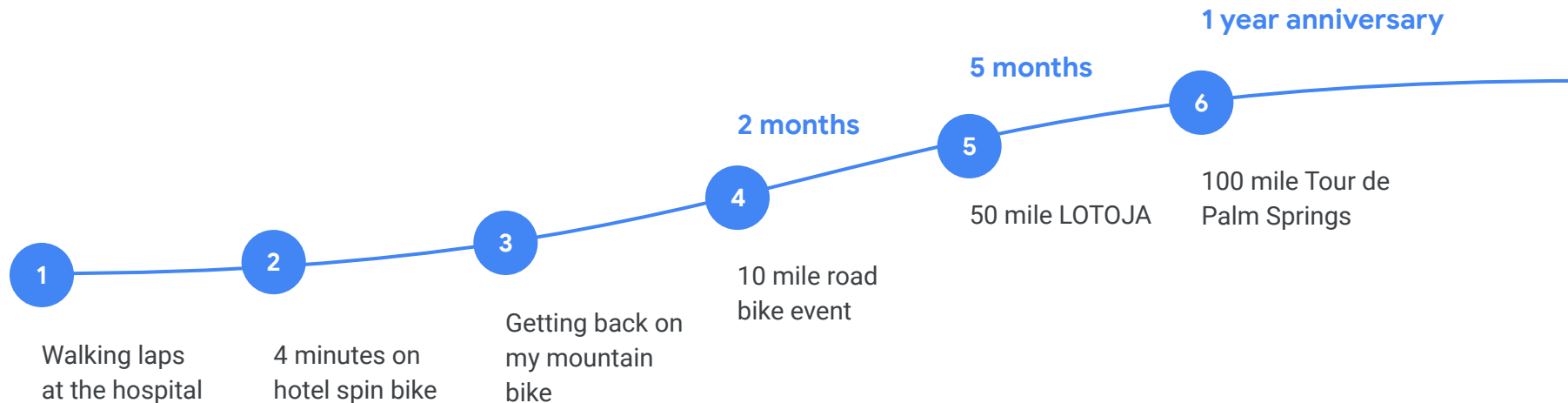


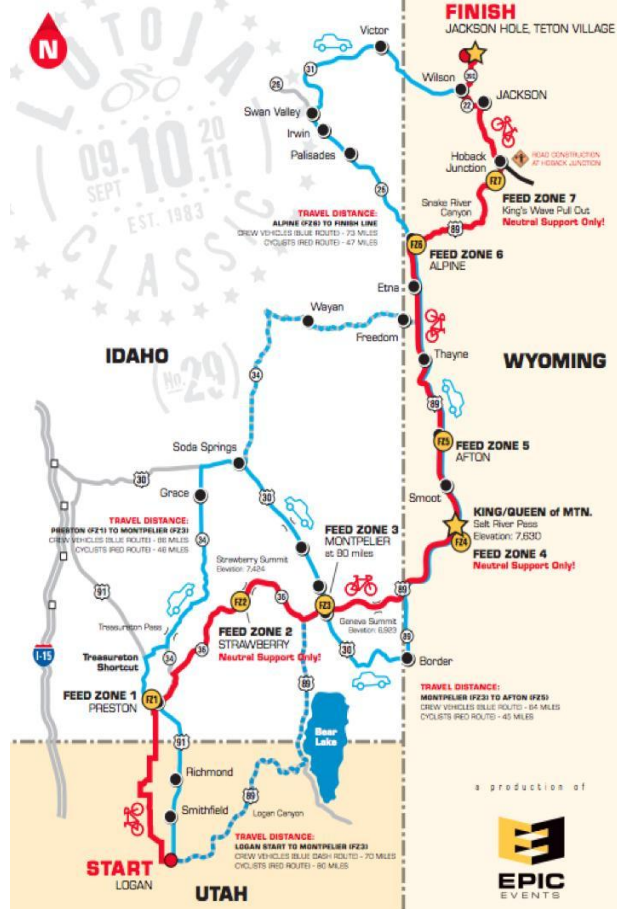
Google Cloud





Post surgery training plan





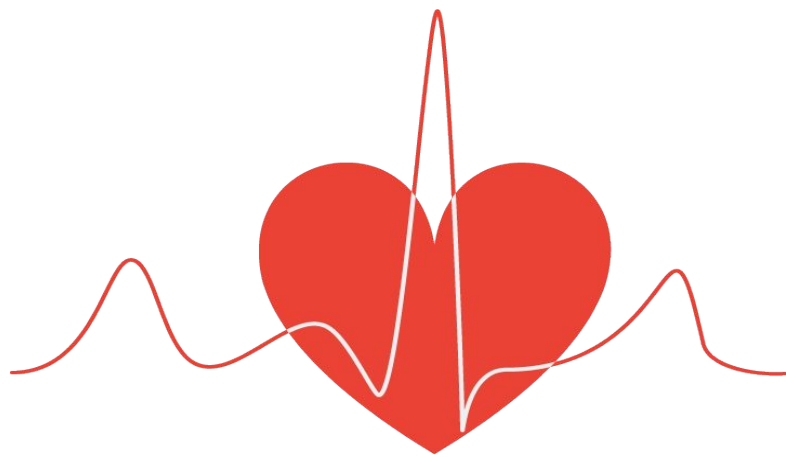


Successful Outcome!

I refuse to sit still. Since having open heart and lung surgery in 2010, I've competed in multiple 200-mile single-day road and gravel bike races around the world.

This has given me a unique experience as to how data collection, analysis and management can prove beneficial to personal health.





Selfcare Data: Making better choices

Trust

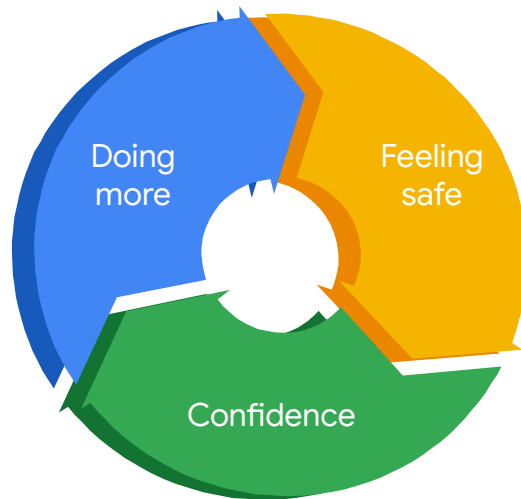
Learning to trust that my device is going to work... My life depends on it!



Your heart, Your mind



Is it working... Is it working... Is it working?



Overcoming the fear: Help me feel safe!



Data to live my life... and keep my Doctors in the Loop

I have relied on machines for 35 years.

100% dependent on a pacemaker (on my seventh one).

Current Boston Scientific device collects data on every heartbeat, checks for abnormal rhythms, and monitors voltage settings and battery life. The information is transferred via a wifi-enabled communicator and made available to doctor for analysis.



Heidi Dohse

Date of Birth: Jan 23, 1964 (Age 55)

Recorded on Jan 27, 2019 at 8:33 PM

Sinus Rhythm — ❤️ 60 BPM Average

This ECG does not show signs of atrial fibrillation.

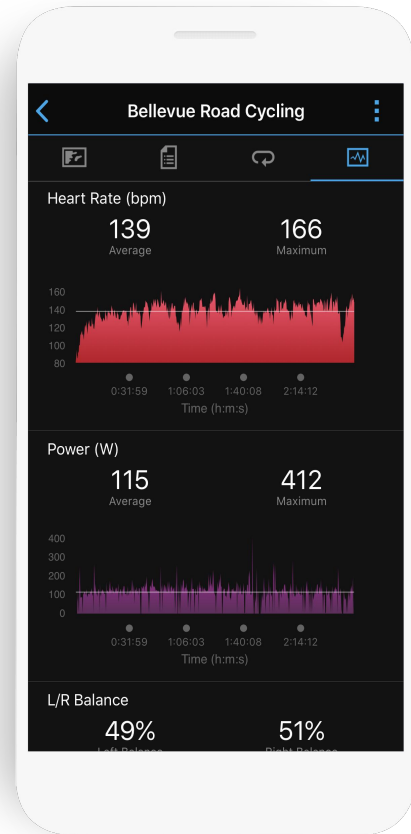
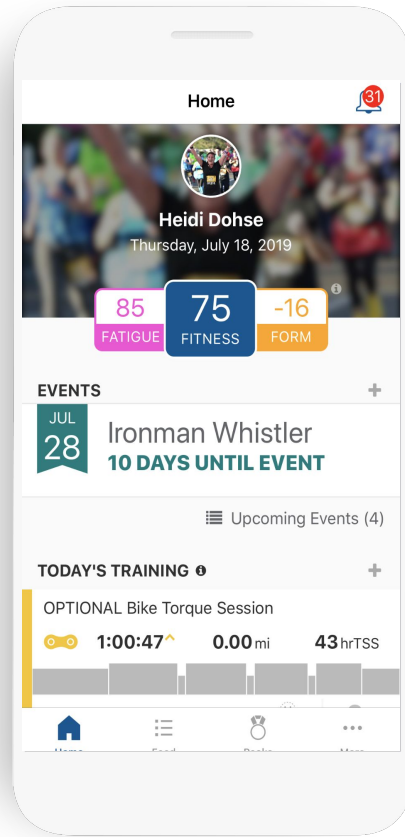
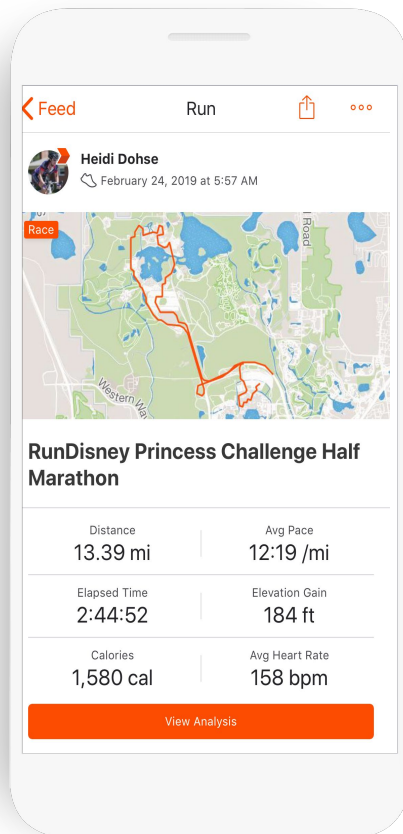
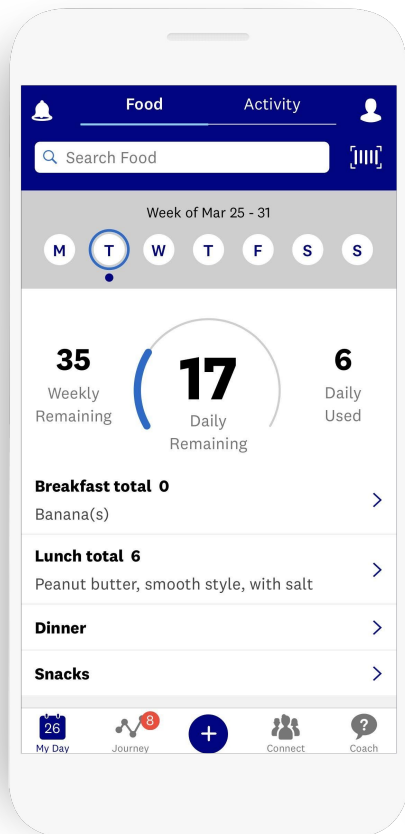


25 mm/s, 10 mm/mV, Lead I, 513Hz, iOS 12.1.2, watchOS 5.1.3, Watch4,4 — The waveform is similar to a Lead I ECG. For more information, see Instructions for Use.

New Apple Watch

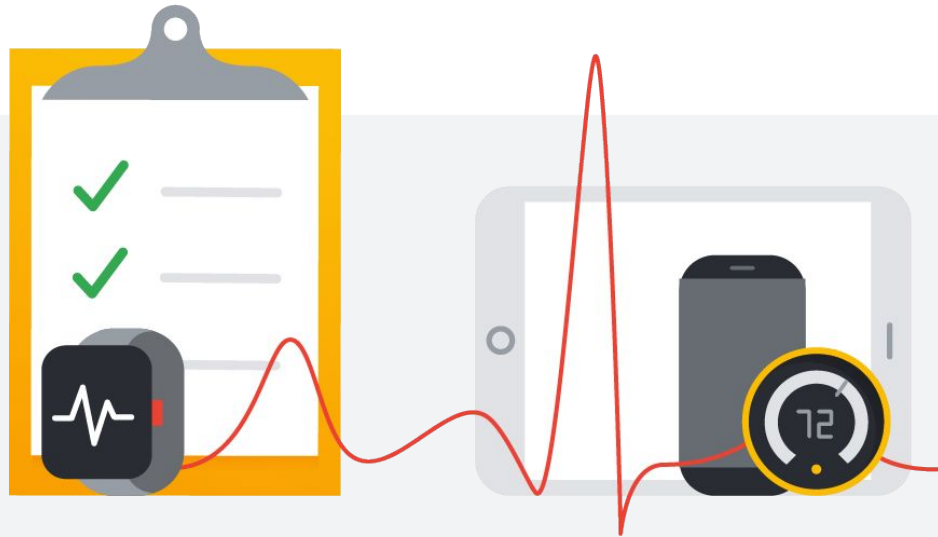
Normal resting ECG taken
with Apple Watch.

Mobile App Data and Social Sharing



Patient Journeys:

Transforming from the old paradigm of “patient” into a new model of “consumer”.



Many journeys start with a Google search:



1 in 20 searches are healthcare related



Google Search

I'm Feeling Lucky

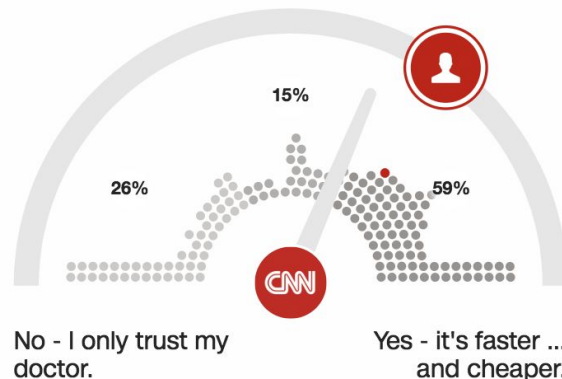
200 billion health & wellness-related
Google searches in 2018!



QUICK VOTE • 11 039 VOTES

Do you turn to Google for medical advice more
often than your doctor?

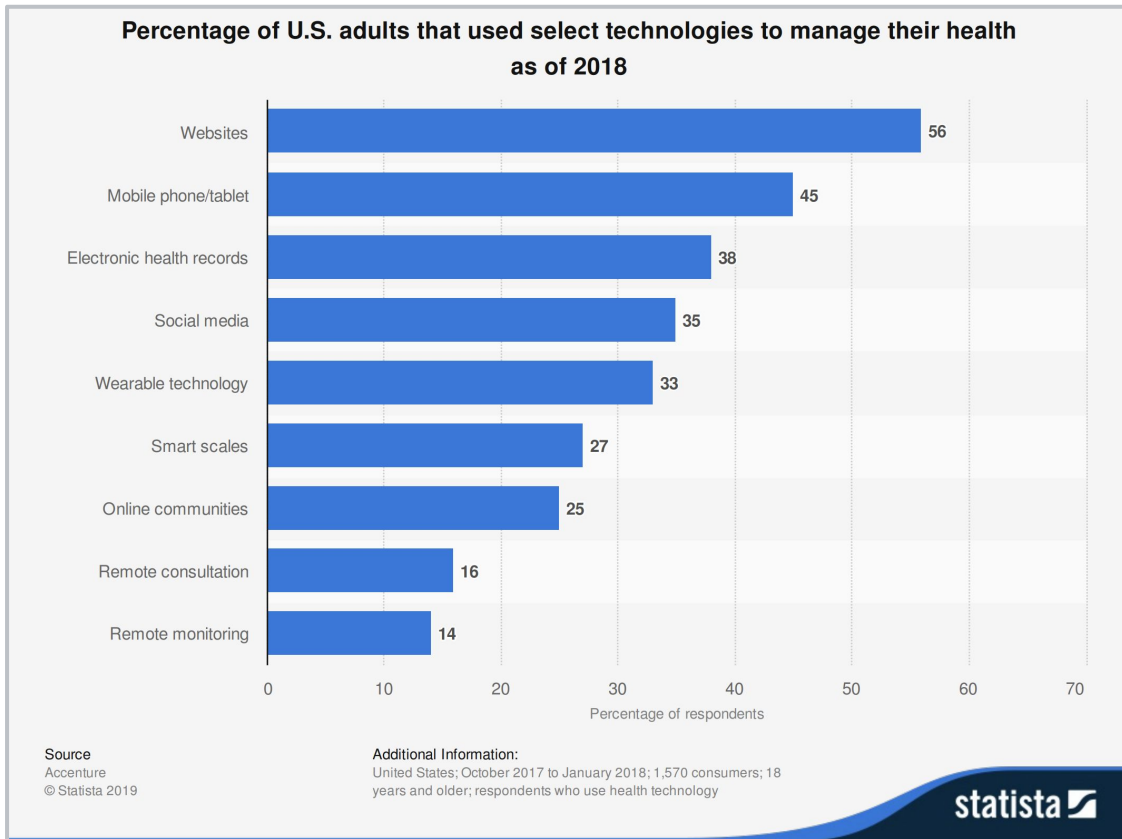
You take a pretty balanced stance.



Personal Accountability:

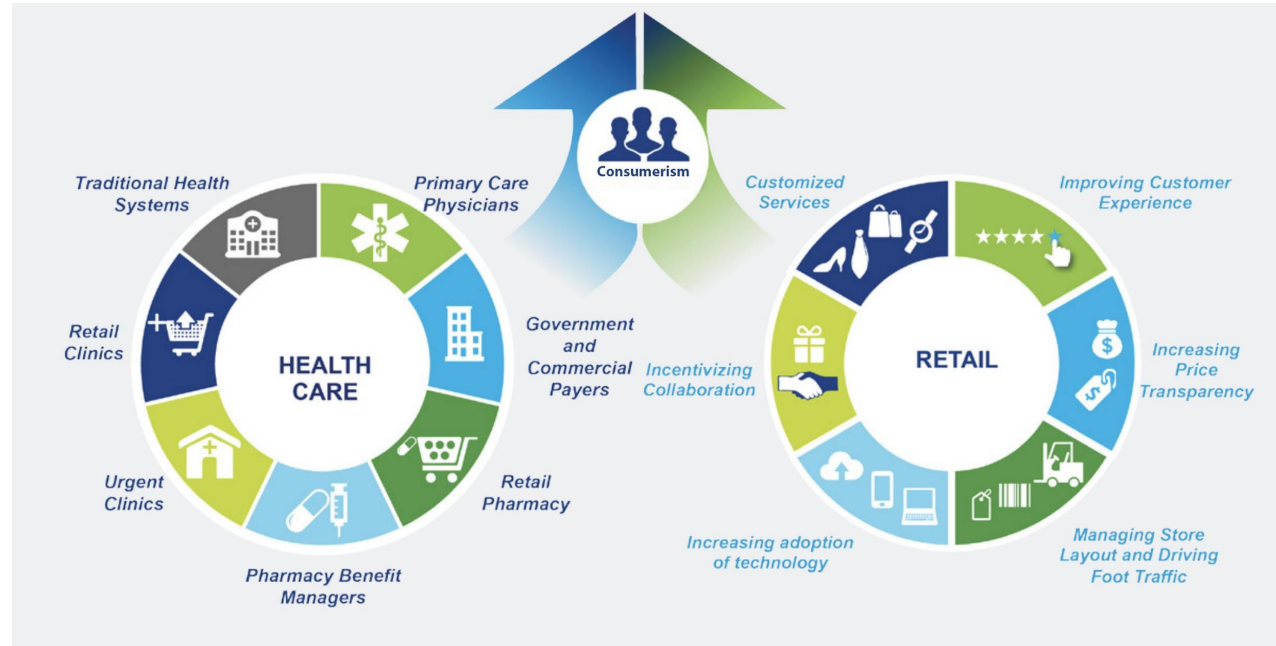
As consumers take on a larger share of their health care cost, they are becoming more active and engaged in managing their health and wellness.

Access to information and tools for managing health are important...



Healthcare Industry:

“Patients’ journeys across the care continuum can be improved with patient-centered technology integrated into the care process.” HealthAffairs.org 2019



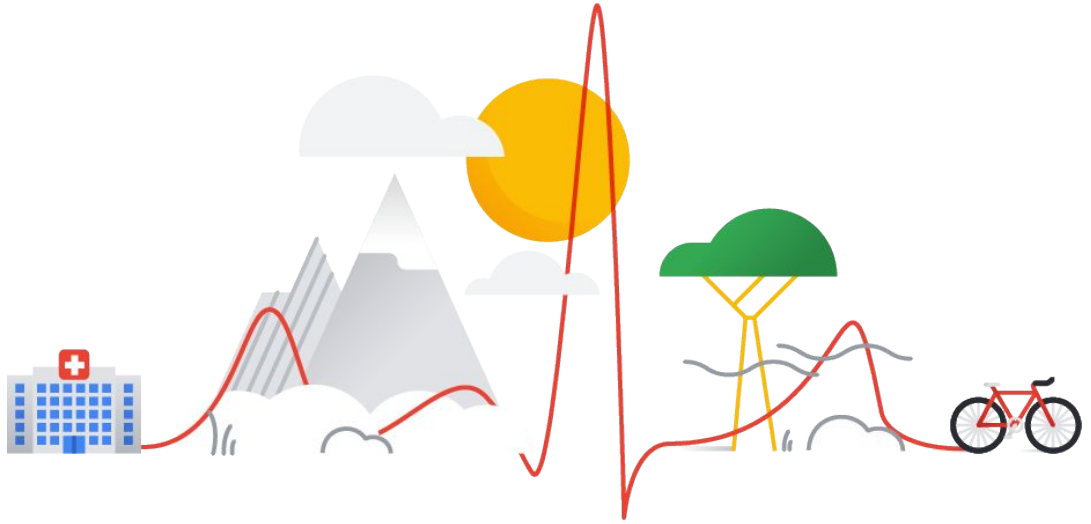
Retail Reality:

Consumers want access to greater convenience, service, and information.

Retailers are disrupting the existing healthcare system by offering care centers with more hours of operation, lower fees, and access to basic diagnostic tests and medical services.

Bridging the Gap:

From Healthcare to Selfcare



Challenges and Opportunities:

Challenges for Healthcare:

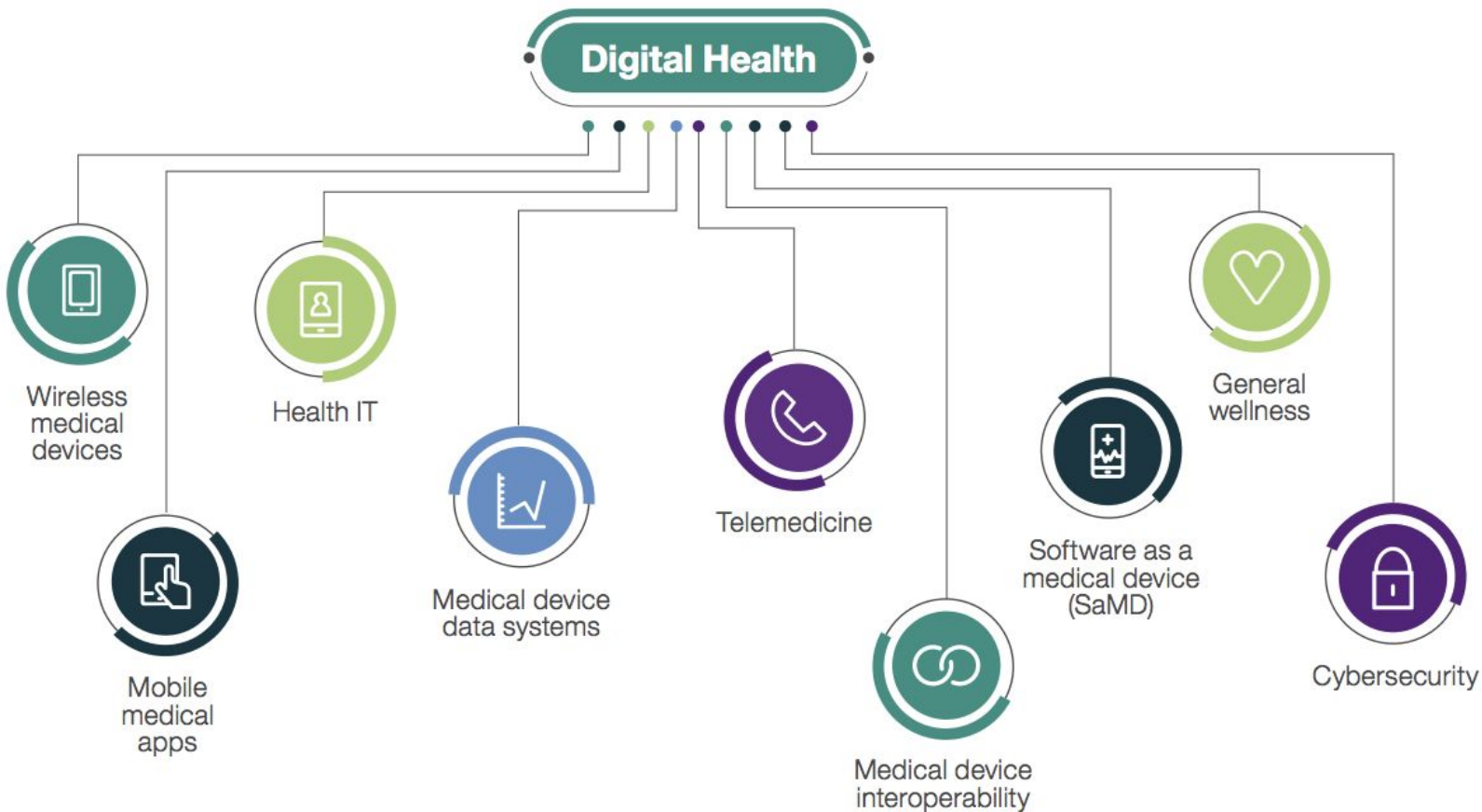
- Misaligned success metrics
- Focus on crisis management not person journey
- System not designed for coaching patients to get their life back.
- There is not a billing code for Happiness!

Opportunities for Patient Advocacy Organizations:

- Provide Hope and Inspiration! Showcase success stories
- Guidance on goal setting and developing plans to achieve them
- Education on how to choose the right apps and digital health solutions for real-time insights
- Understand and empathize that this is a lifelong journey
- Engage with us as people not just patients!

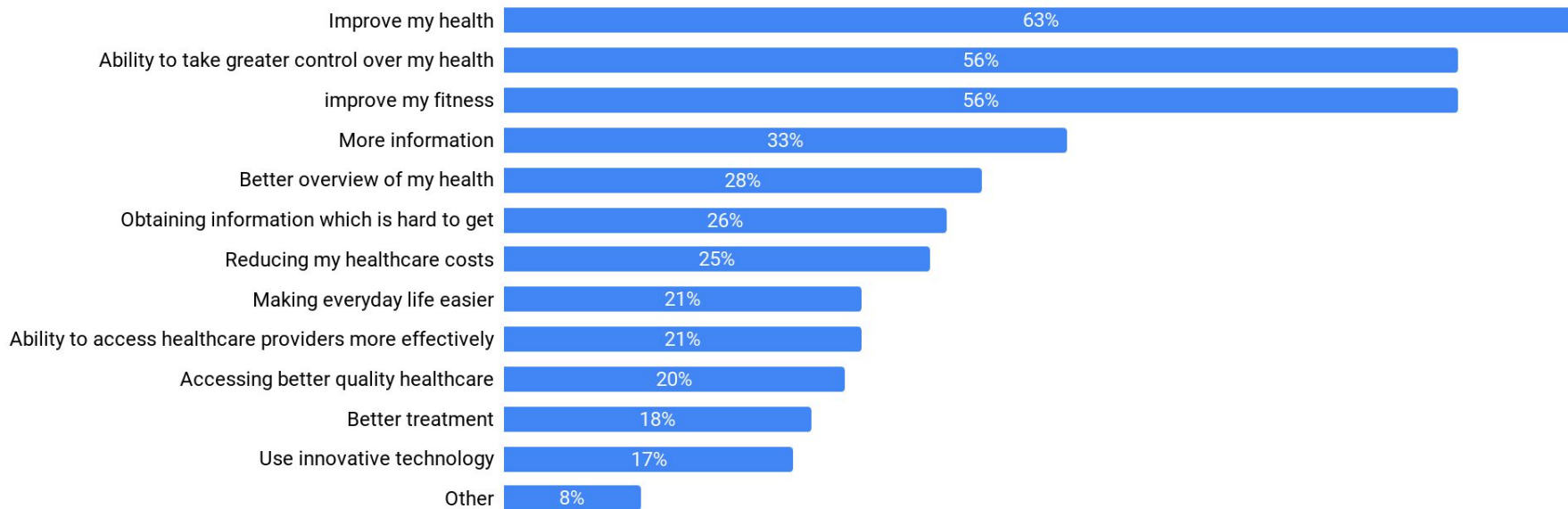
Accelerating Delivery of Selfcare & Healthcare Solutions





Source: FDA 2018. <https://www.fda.gov/medicaldevices/digitalhealth/>

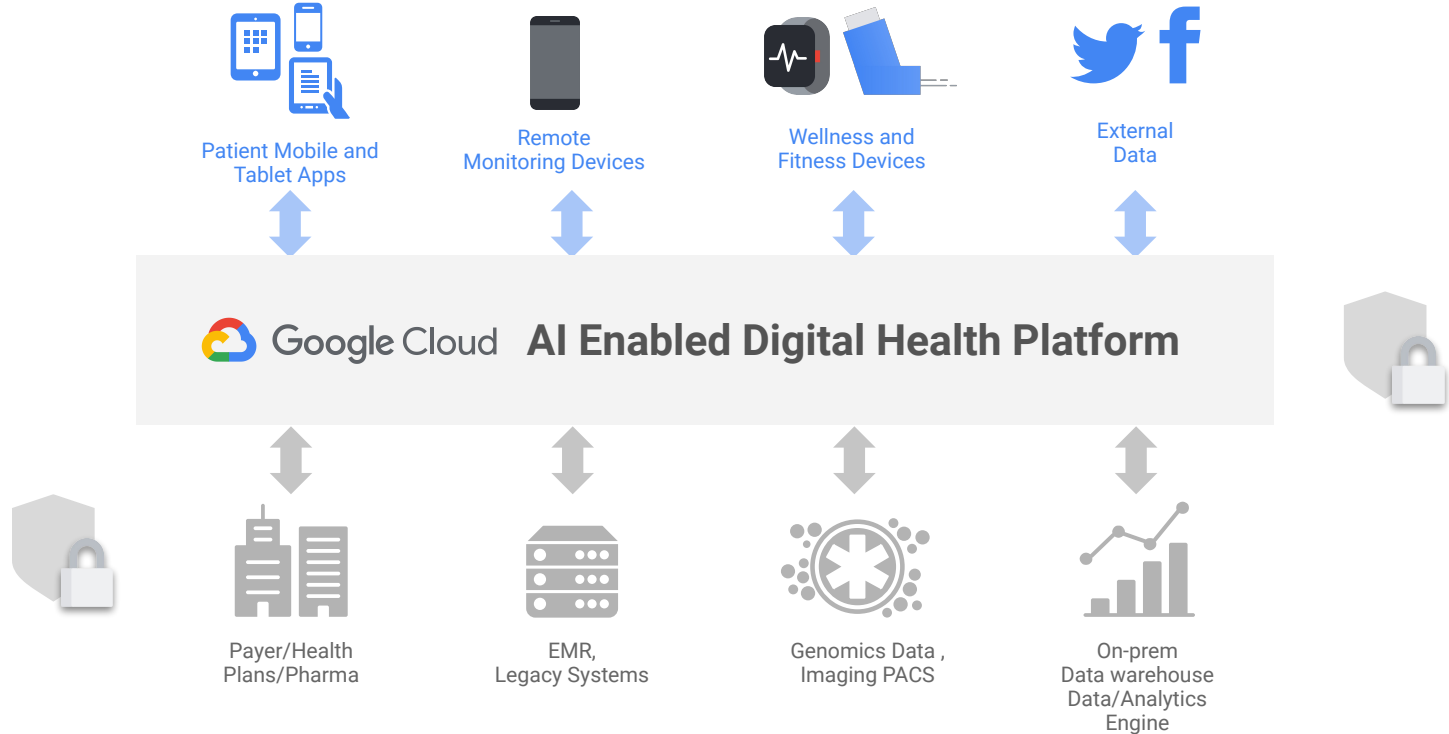
Digital Health Benefits:



Digital Health Scenarios:

	Prevention	Diagnostics	Therapy & Surgery	Treatment & Recovery
Hardware	Smart clothing Fitness Wristband Smart Watches Portable Asthma Sensors Smart Scales	Tele-EEG Tele-EKG Connected Blood Pressure Meter Digital Microscope Medical imaging	Cardiac Implants Smart glasses Motion Control Surgery Robotic Surgery	Connected Sonographic unit Connected Breathing Rate Appliance Connected Blood Glucose meter
Software & Services	Fitness Apps Nutrition Apps Telemonitoring Software Health Destination Online Fitness Centres	Diagnosis Apps Medical Records Software Mobile Digital Medical Round Medical E-Learning Platform	Online Consultation Blood Pressure Monitoring Apps Surgery Support Online Experts Platforms	Diabetes Diary Digital Care Diary Online Pharmacy Telemedical Services Digital Self-Help Groups

Healthcare Enterprise Landscape



Final Thoughts...

As a lifelong heart patient, I have waited a long time for all the pieces to come together and now the Healthcare industry is ready!

Today there are **Implantable**, **Wearable** and **Environmental** sensors to collect data in the context of living our lives. Cloud infrastructure to ingest, organize and make the data useful.

In the near future physicians can customize healthcare with the use of genomics data and proactively diagnose health issues before they become expensive to treat.



Thank you!

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