



SOCIETY OF  
ACTUARIES®

2019 **ANNUAL  
MEETING**  
& EXHIBIT

October 27-30  
Toronto, Canada

## Session 041: Why Health and Wellness Initiatives Matter for Actuaries

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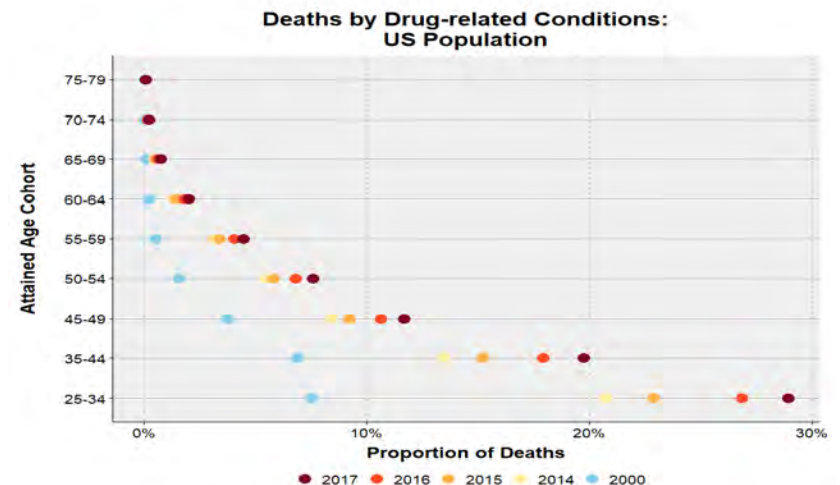
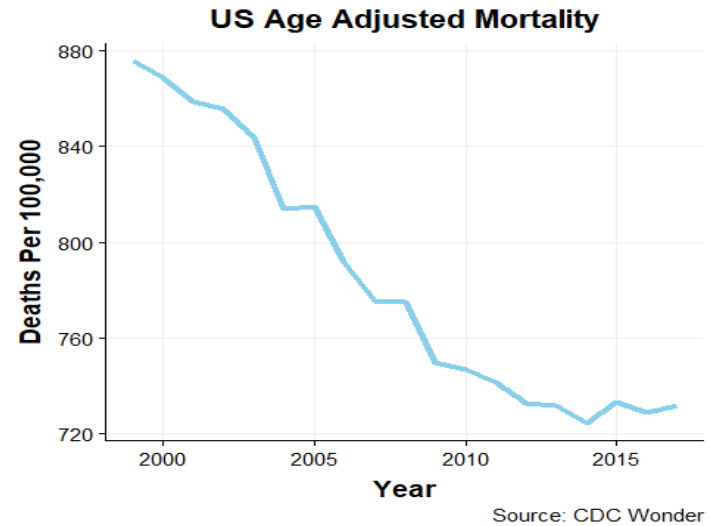
# Why Health & Wellness Programs Matter to Actuaries

2019 SOA Annual Meeting  
Session 41

- Rick Pretty, FSA, MAAA  
SVP, Strategic Solutions Development
- SCOR Global Life

# US general population mortality experience

- The US general population has experienced stagnant or negative mortality improvement in the last five years.
- The SOA report on U.S. Population Mortality Observations shows that mortality deterioration is primarily driven by an increase in deaths due to opioid usage.
- Since 2012 age-adjusted mortality for opioids has increased by nearly 15% annually.



# The US insured population continues to experience mortality improvement

- The cohorts most insulated from mortality deterioration, higher income/education and mid-to-older ages, are similar to the profile of an insured population.
- The SOA's report also noted that higher income counties experienced mortality improvement while lower income counties experienced mortality deterioration.
- While a much smaller proportion of insured deaths are due to drug-related conditions, there is an uptrend that mirrors that of the general population.
- The 25 to 44 age group was most heavily impacted by mortality deterioration.

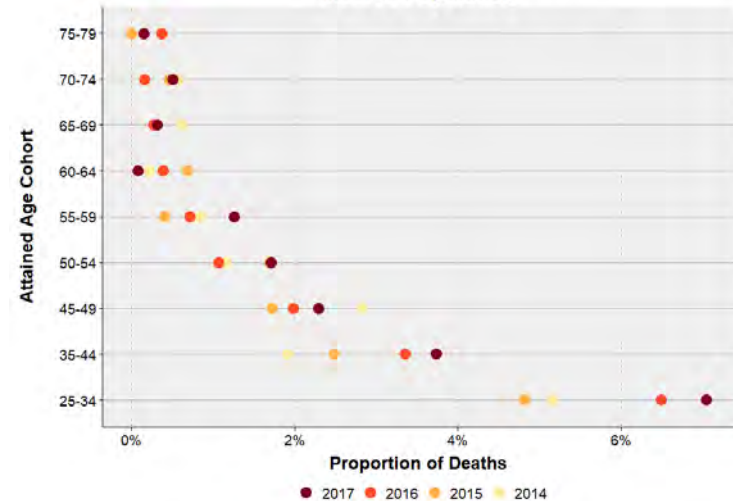
## Age-Adjusted Mortality 1999-2017 Top 15% vs. Bottom 15% Counties in Income All Causes of Death

### Annual Mortality Improvement 1999-2017

Age Group	Bottom 15%	Top 15%
35-44	-0.4%	0.5%
45-54	-0.6%	1.1%
55-64	-0.1%	1.5%

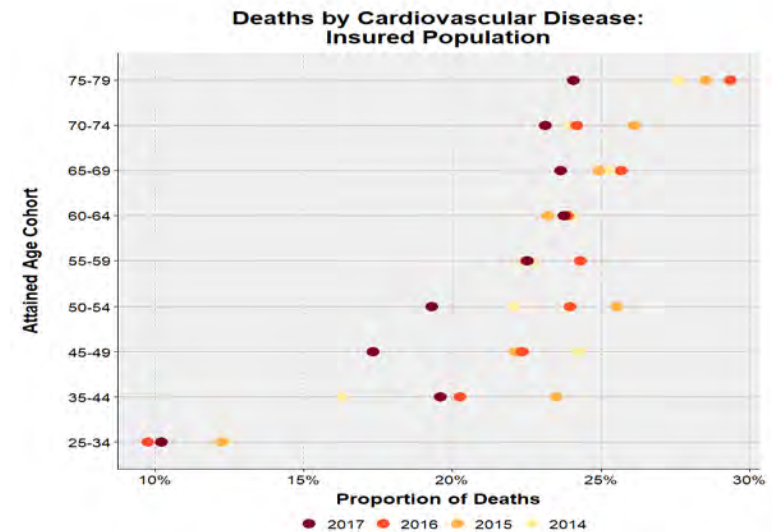
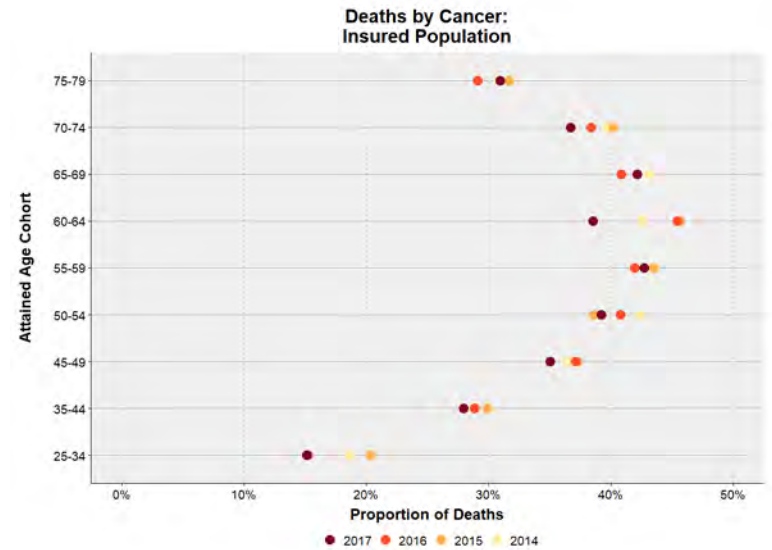
From SOA report "U.S. Population Mortality Observations Updated with 2017 Experience"

### Deaths by Drug-related Conditions: Insured Population



# The US insured population continues to experience mortality improvement

- Mortality improvements for the two largest causes of death, cancer and heart disease, have mitigated mortality deterioration from other causes.
- Mortality improvement for both of these top two causes of death have accelerated.





# Why Health and Wellness Initiatives Matter for Actuaries: John Hancock Vitality as a Case Study

2019 SOA Annual Meeting, session 041

Lauren Cross, FSA, MAAA

October 28, 2019



# John Hancock launched Vitality for a number of important reasons:



Fundamentally, we believe that your life insurance company **should care a lot about you living a long, healthy life**



Longevity, to an unprecedented extent in the history of civilization, **can be heavily influenced by the choices we make**



The life insurance industry is in an incredibly unique and powerful position to **help customers live a longer, healthier life**



We saw an opportunity to revitalize a product category that is **as critical as ever for US consumers**

So how does  
this impact  
pricing  
assumptions?

- Mortality
- Lapse
- Expenses



## Lifestyle choices such as...



Lack of Exercise



Poor Nutrition



Smoking



Level of Alcohol Consumption

## Lead to non-communicable diseases



Cardiovascular Disease



Respiratory Disease

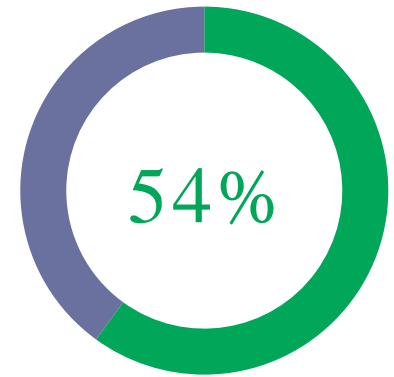


Cancer



Diabetes

Which are responsible for



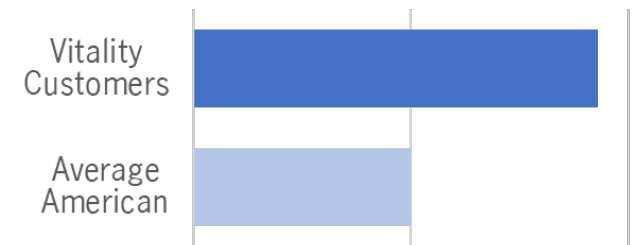
OF ALL DEATHS  
IN THE U.S.

# Mortality

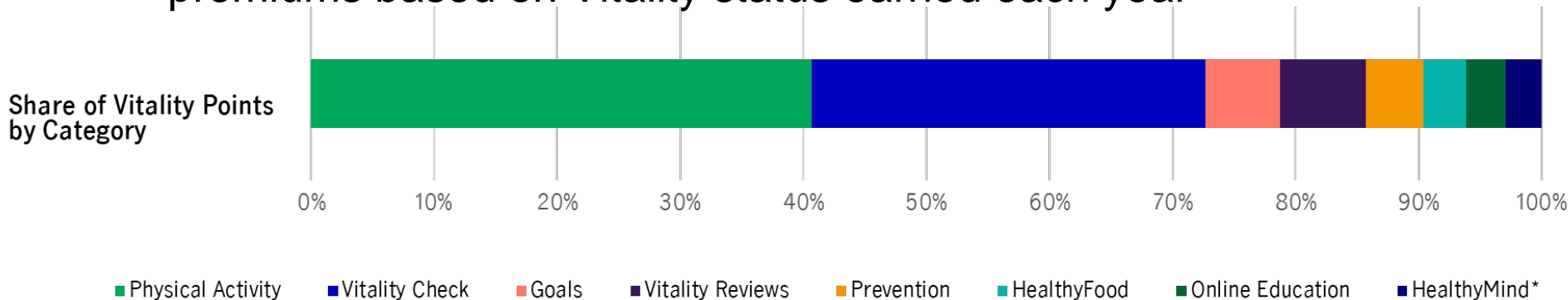
- Behavioral science shows that rewards and incentives can motivate people to change behavior


 Average **over 40+ healthy activities per month**

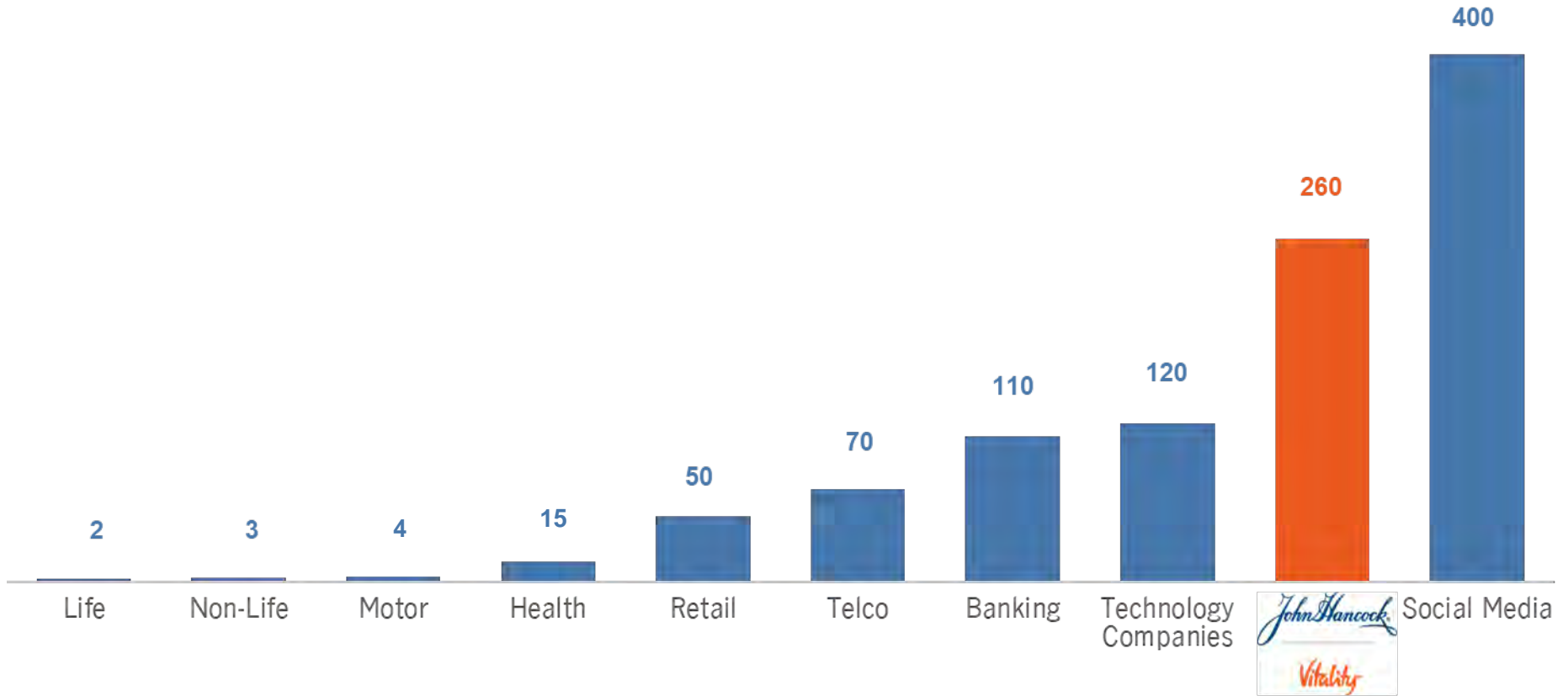
Take nearly **2x more steps per day** than the average American



- Gathering data about our policyholders post-issue enables dynamic premiums based on Vitality status earned each year



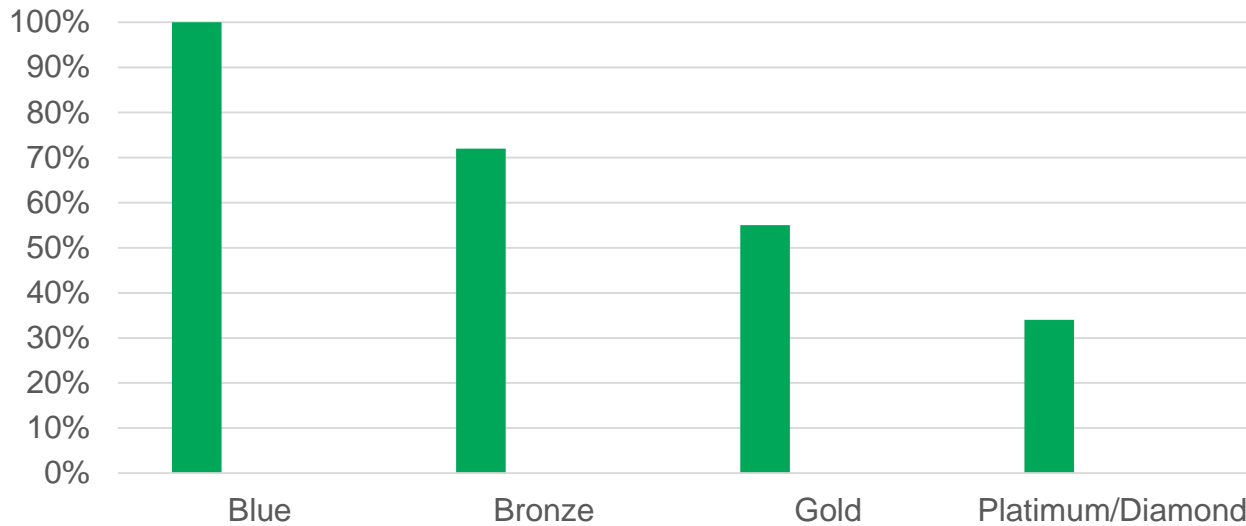
# Average annual customer interactions with John Hancock Vitality



Source: McKinsey & Company and John Hancock Vitality data






# Lapse

- Vitality's data from other markets\* shows that the more engaged a customer is, the less likely they are to lapse



- While lower lapses (overall) are not always a good thing depending on your product design, there's comfort in knowing that your healthiest policyholders are persisting!

# Expenses

-  Cost of rewards
-  Cost of program infrastructure & administration
-  Marketing and distribution
-  Passing back a material portion of the mortality benefit to the customer
-  A delicate balance of cost/benefit!

*John Hancock* | *Vitality*

Together we are  
changing lives,  
changing our  
industry, and  
opening new  
opportunities for  
success!



*John Hancock*<sup>®</sup>





# Empowering Customers for Health and Wellness

*- Asia Case Studies*

# Everybody Wants to be Healthy

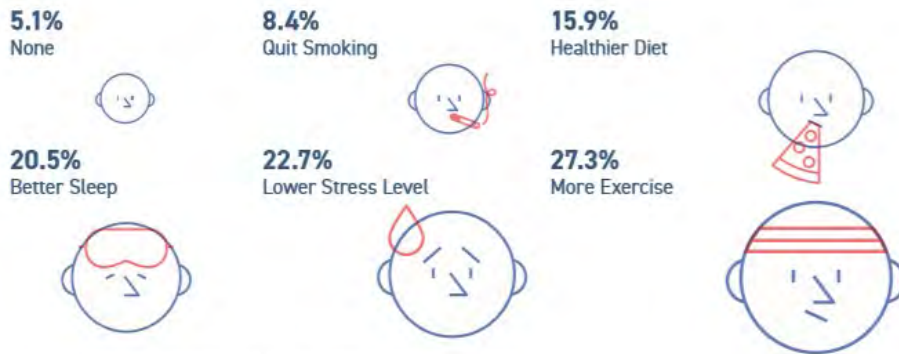
- ✓ Consumer Question 1\*: what is your most valued life goal?
- ✓ Consumer Question 2\*: what is your view on insurers shifting roles to keeping people healthy?



\*Source: ReMark 2018 global consumer study

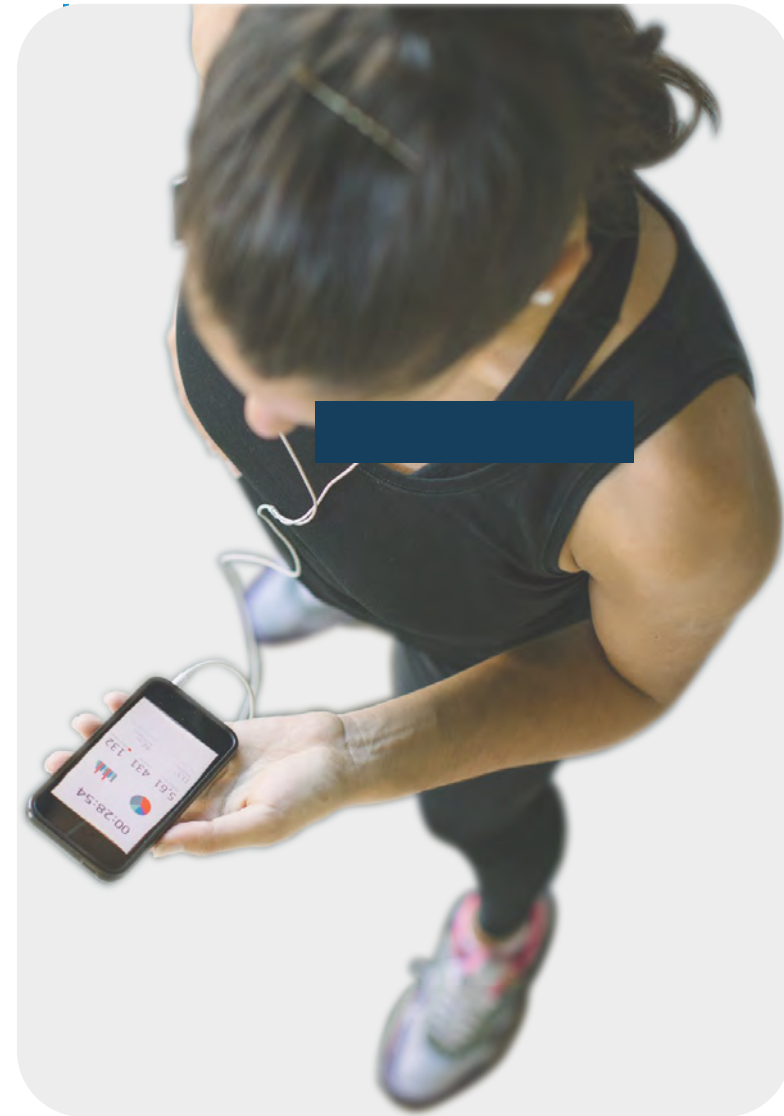
# But What Does Being Healthy Mean For Us?

## Room for improvement



Q: Which of the following aspects of your lifestyle would you most like to improve?

FIG 10: Lifestyle improvement wishes



Source: ReMark 2019 global consumer study

# Two Case Studies



## For the fit and active

- ✓ Critical illness protection
- ✓ Agent +App +Wearable
- ✓ With Wearable device
- ✓ Stay active and young
- ✓ Reward, gamification, community
- ✓ Dynamic UW
- ✓ Post-issue ongoing UW



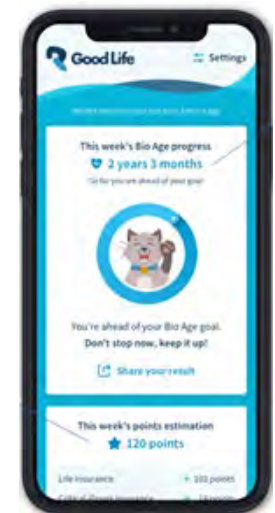
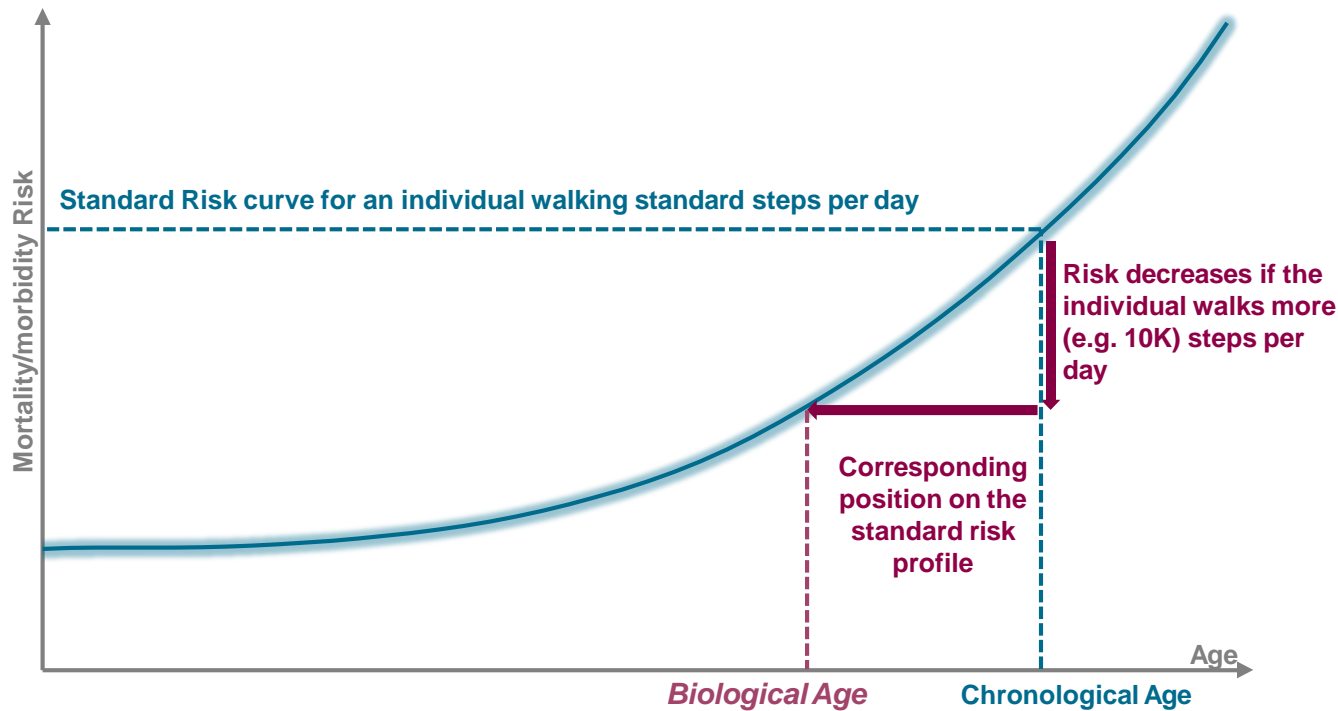
## For HBV patients

- ✓ Liver cancer protection
- ✓ Doctor + App +Pharmacy
- ✓ No wearable device
- ✓ SA activated within App when purchasing drugs
- ✓ Prevention, monitoring and community
- ✓ Insure the “uninsured”

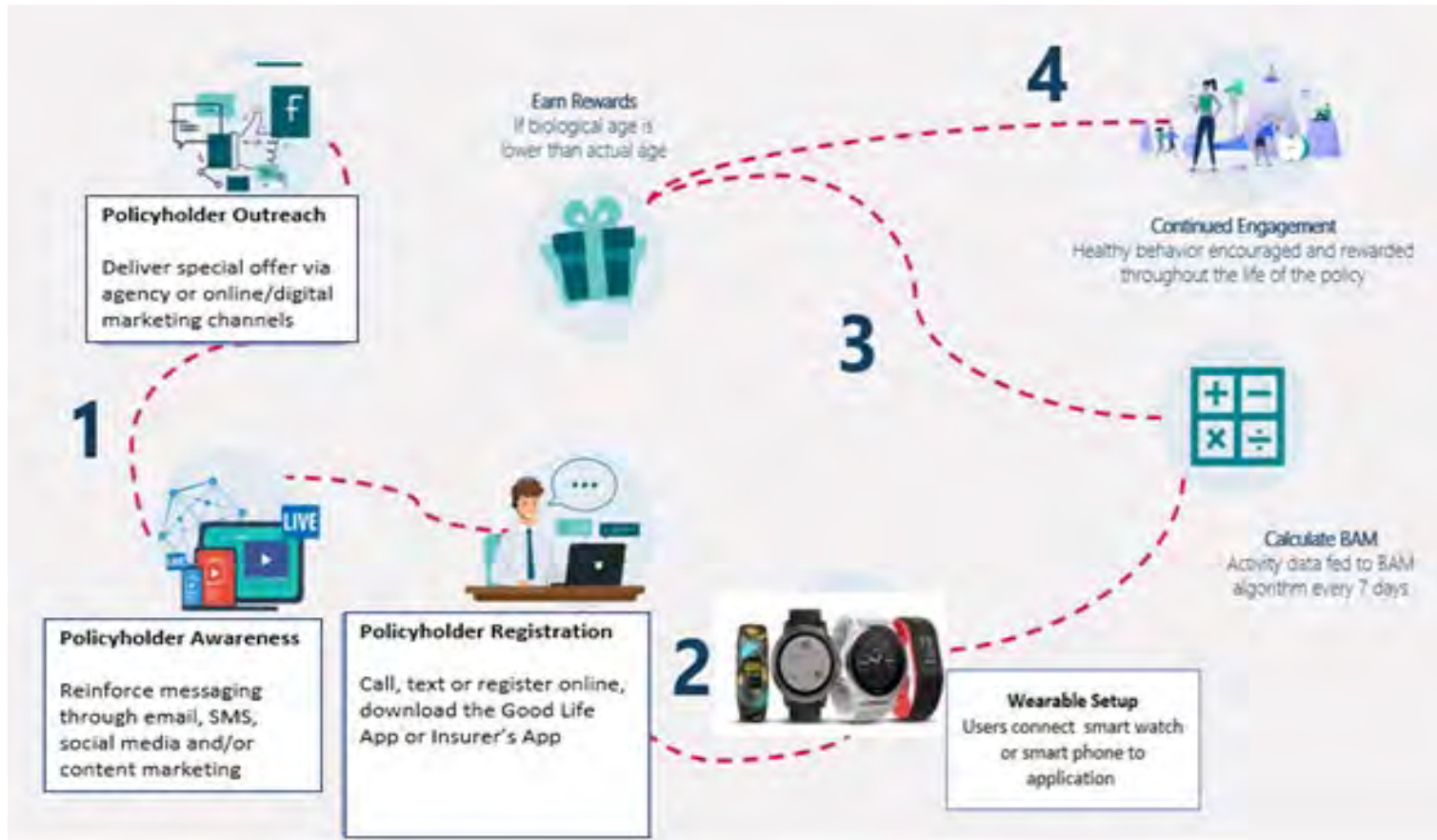
# Case 1: For the Fit and Active



BAM (Biological Age Model) translates an activity versus risk study into a successful engagement message:  
**Stay active, become younger and get rewarded every 7 days!**



# Case 1: BAM Engagement Journey



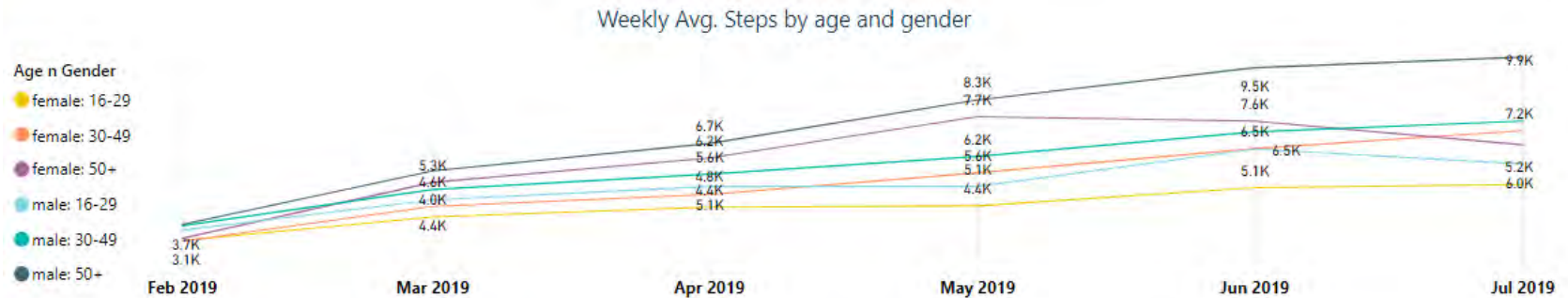


# Case 1: BAM Engagement Impact



Observations during the first 6 months post launch:

- ✓ Positive weekly average steps trends observed from policyholders.
- ✓ Over 50s group appears to be most motivated to “age reduction”.

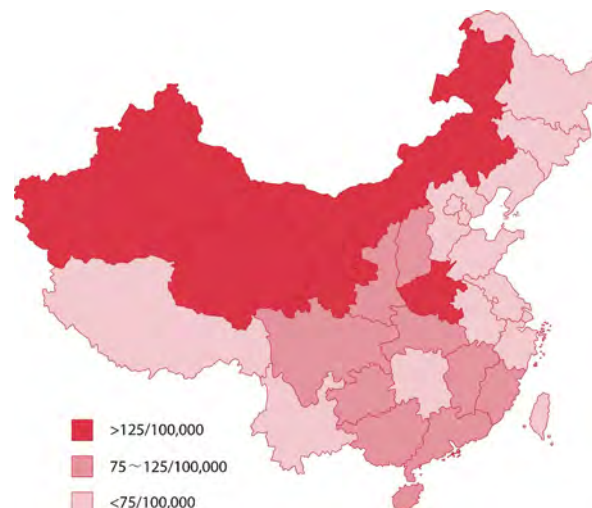
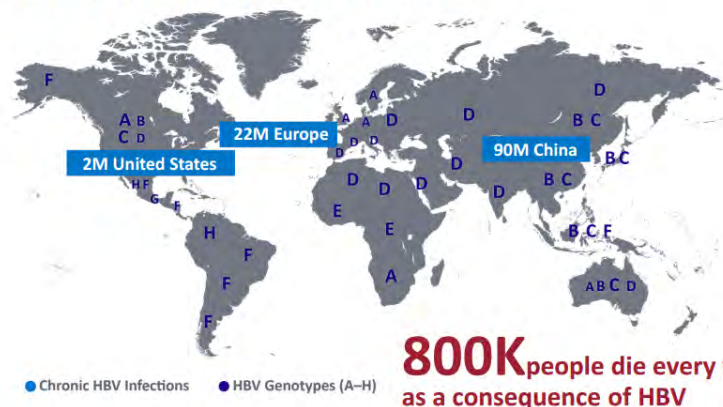


# Case 2: Improve HBV Patient Lives



## Chronic HBV – Global Unmet Medical Need

**350M** people chronically infected with HBV



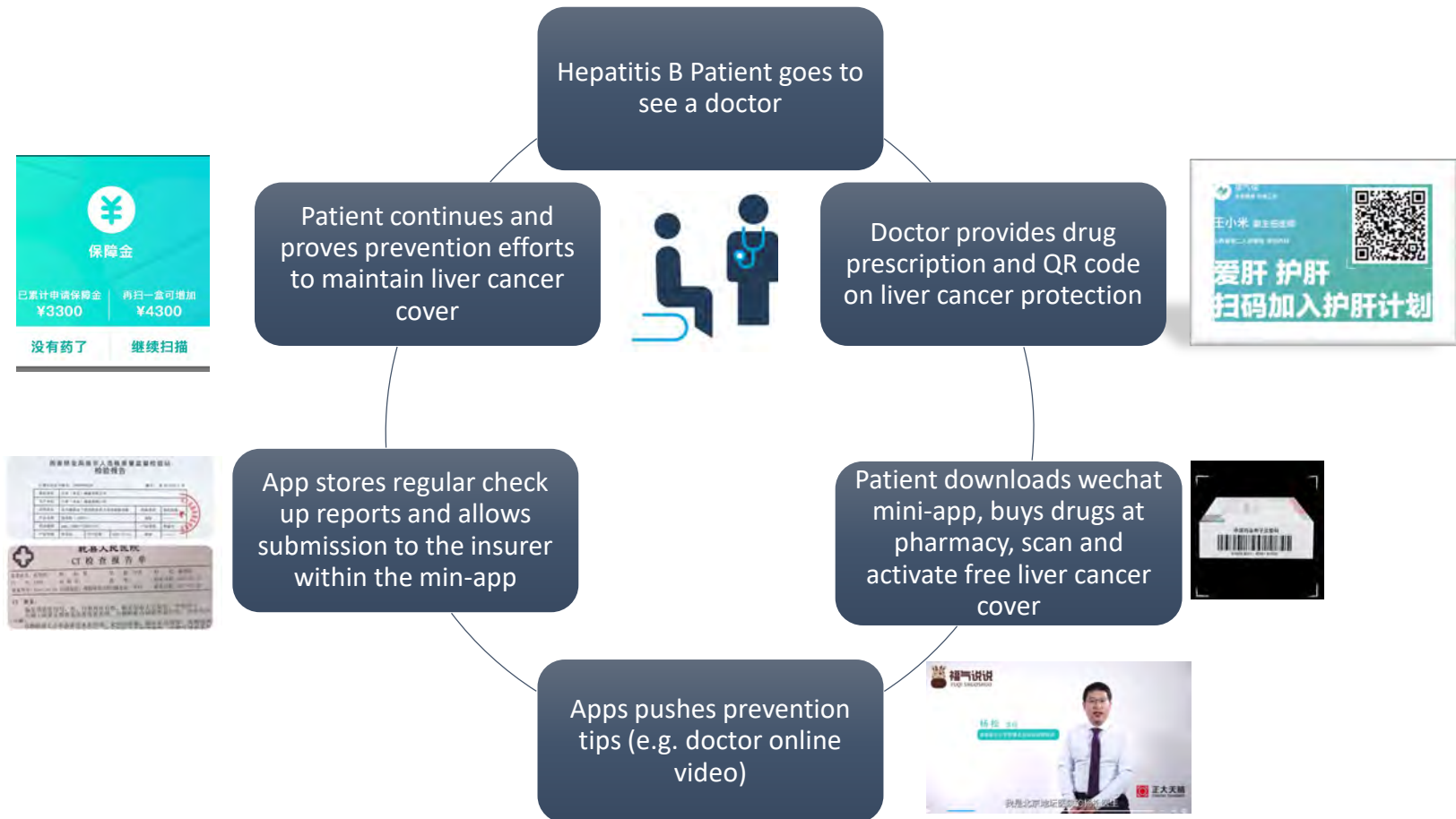
Lozano R, Naghavi M, Foreman K et al. The Lancet 2012; 380: 2095-128

World Health Organization: Fact Sheet No. 204. Hepatitis B, revised, August 2008. Geneva: WHO. [www.who.int/mediacentre/factsheets/fs204/en/index.html](http://www.who.int/mediacentre/factsheets/fs204/en/index.html)



- Following HBV infection, 10% of patients will develop chronic hepatitis (i.e., persistence of HBV in the body) with the potential risk to develop cirrhosis and liver cancer.
- The risk of transition to a chronic state is particularly frequent among immunodepressed individuals and newborns.

# Case 2 HBV Patient Engagement Journey



# Case 2: O2O Patient-centric Interactions



- Patients trust their doctors who provide the QR code



- Registration with 1 health declaration question



- Only 4 basic bio information are required



- Scan purchased drug package to activate free liver cancer SA








- Pharmacy network staff are trained to provide assistance when needed



*No agents, application forms or medical underwriting are involved; policy issued and managed within Wechat mini-app.*

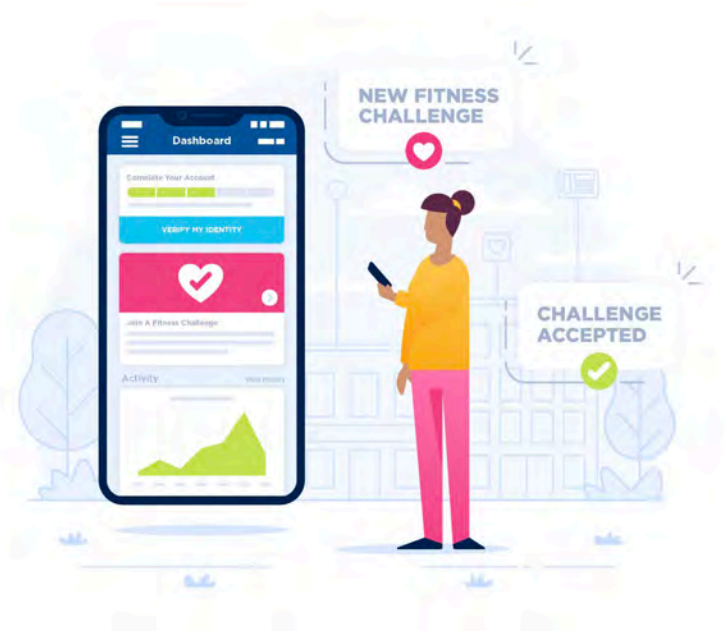


reimagine Life

-  ReMark International
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-  ReMark Group
-  remarkgroup.com



An Industry overview of how life insurers are using health and wellness initiatives to change product, pricing, engagement and .... perception.







**Dustin Yoder**  
Founder & CEO Sureify



**sureify**



## For a little Background: What is Sureify's Solution?

Lifetime™: the sales, servicing and engagement platform for the modern life insurance and annuity business.



Lifetime  
ACQUIRE

Sales enablement:  
Omni-channel  
sales, eApp



Lifetime  
SERVICE

Policyholder Service:  
Multi Product  
Servicing



Lifetime  
ENGAGE

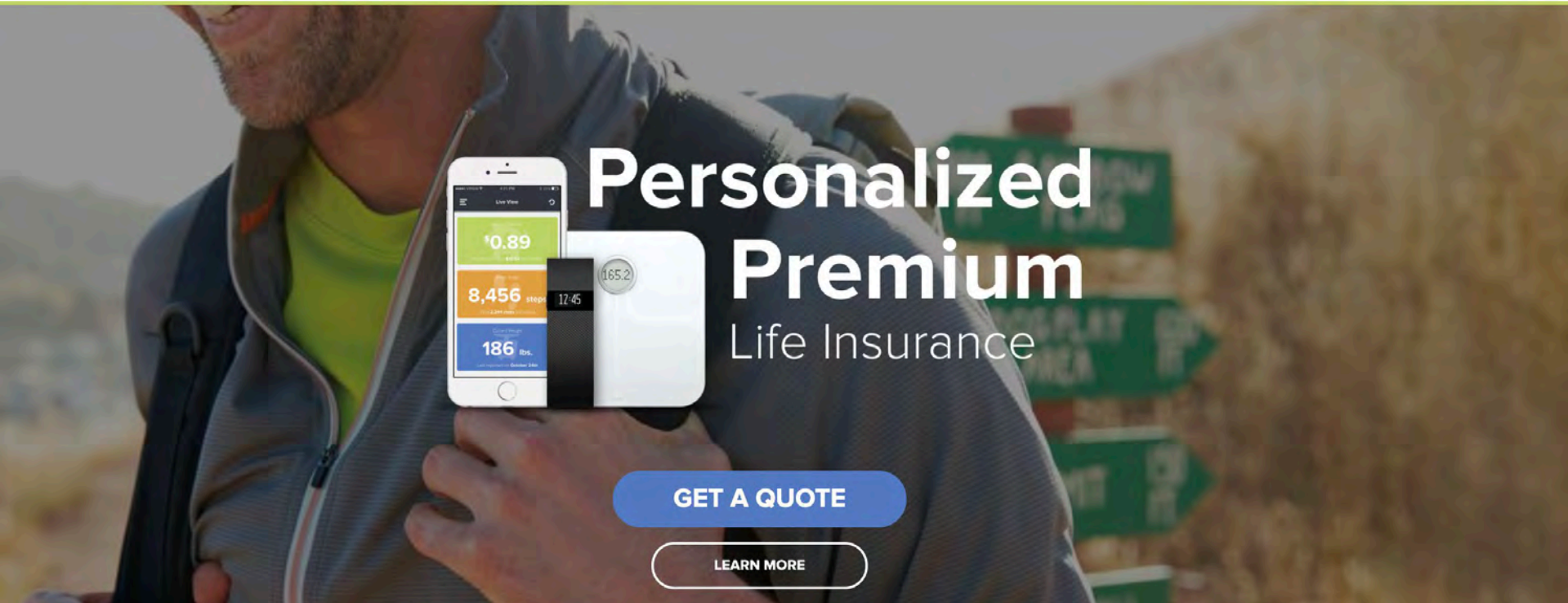
User Engagement:  
IoT, Social, education,  
Geo,



Insurer Control Panel:  
Data, analytics, Content, Configuration



## Where Sureify was in 2015...Before we went B2B



# Personalized Premium Life Insurance

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[LEARN MORE](#)

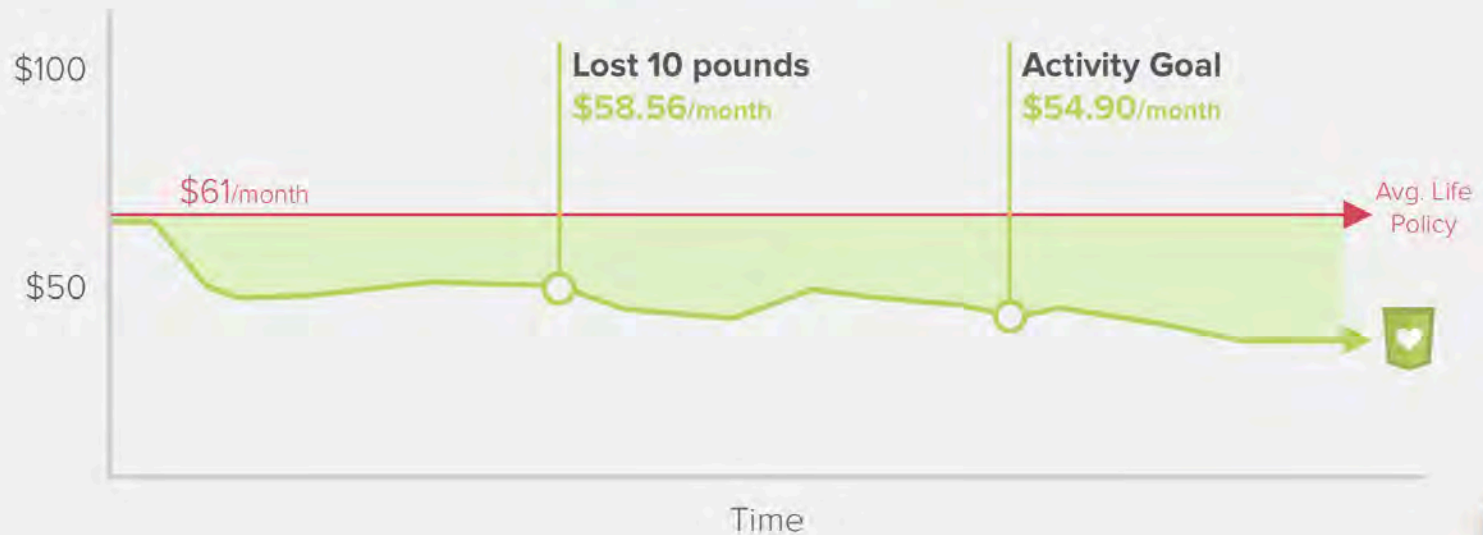


## Our hypothesis in 2015

### Healthy Life = Big Savings

A healthy life allows Sureify to give you money back each month. If your devices show healthy improvements, we reward you with savings - because you deserve it!

**START SAVING**





Let's explore how the industry is integrating health and wellness into life insurance





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# John Hancock Vitality

*Helping you live a longer, healthier life.*

Life insurance that saves you money and rewards you for healthy living. Now available on all our products.

[Explore the benefits](#)







## Vitality PLUS

**15%**


**Up to 15% in  
annual premium  
savings**



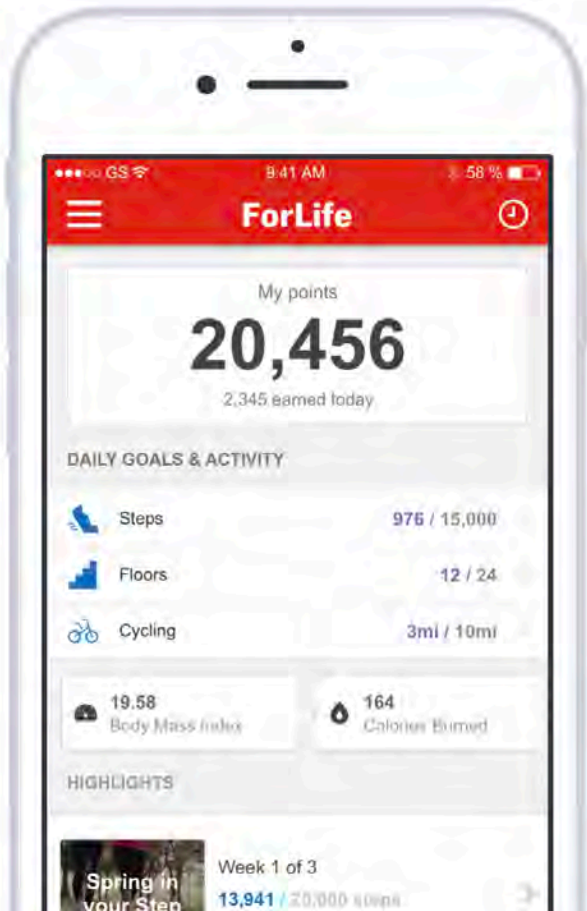
**Earn Apple  
Watch for as  
little as \$25 with  
regular exercise**

 **headspace**

**Free  
subscription to  
Headspace**



ForLife  
Rewarding active lifestyles



## Rewarding active living to the fullest.

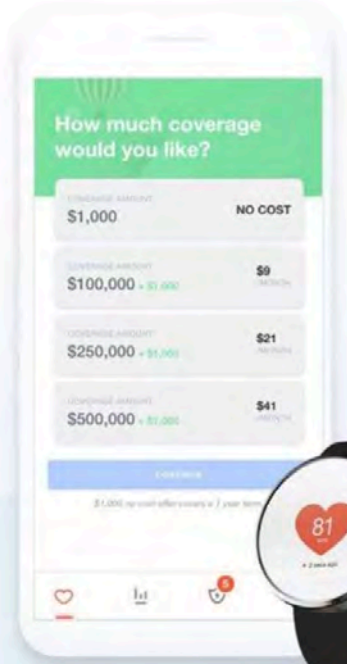
Whether you're already living an active lifestyle or you need an extra incentive to commit, the ForLife mobile app gives you a fun and simple way to motivate your fitness.

ForLife tracks your daily activities and rewards you with points for gift cards from your favorite brands.

Download ForLife today, get moving and get rewarded!



# Cardiogram Partners With Life Insurance Company to Offer Apple Watch Owners No-Cost \$1,000 Accidental Death Plans







# My Principal® Lifestyle

We provide life insurance to help boost your financial fitness. And now we offer a wellness app that lets you turn healthy activities into rewards.





### Start today

Get the app, register and sync a device, then track activity.



### Watch your progress

Set goals and join challenges to earn points.



### Get paid

If you're eligible, your points can be redeemed for gift cards.



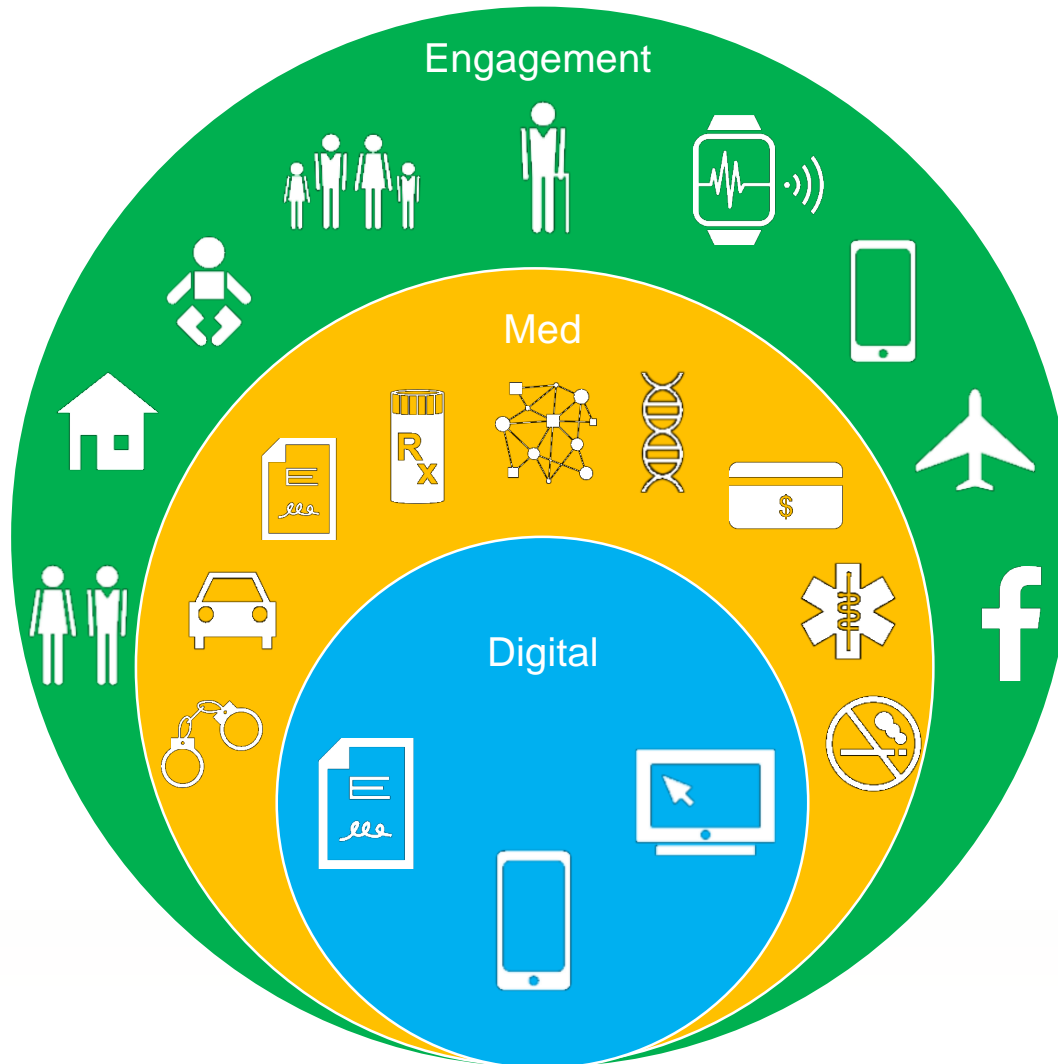
### Be a better you

Feeling good about yourself is the biggest reward of all.



# What we hear & see from our clients

Data,  
Data,  
Data







## Outcomes & Results

20 Points  to NPS

300%  to Response rate

55%  to Persistency



# Engagement Metrics



**use the app on  
a daily basis**



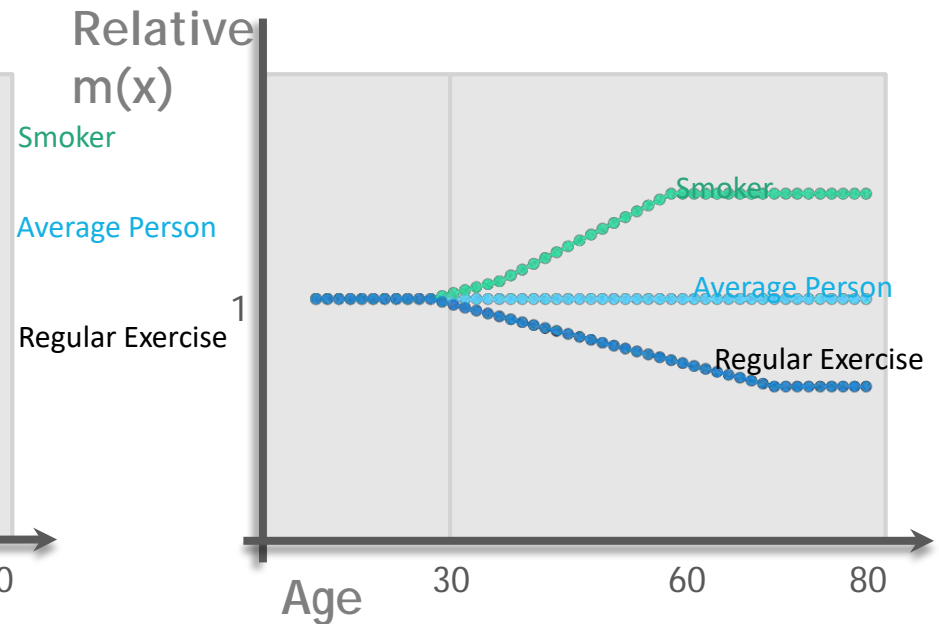
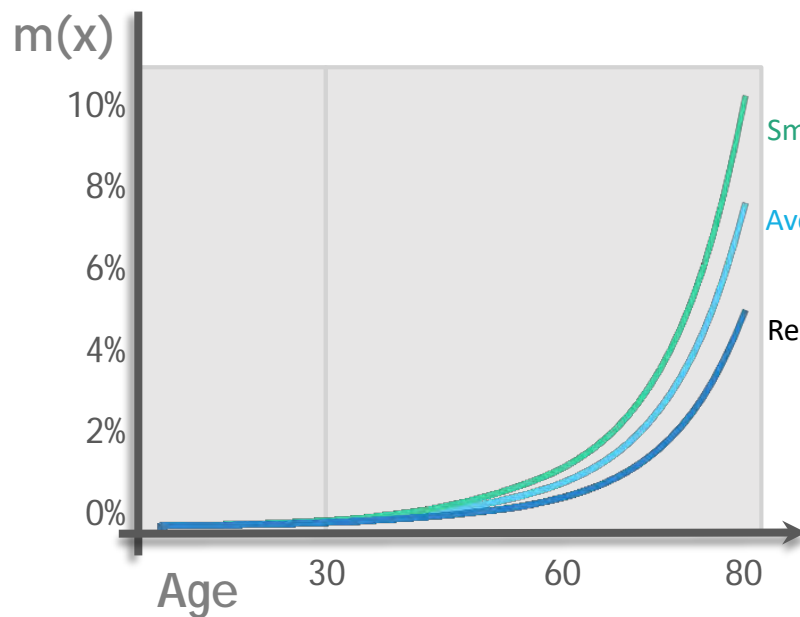
**are active on a  
monthly basis**



**respond to  
polls & quizzes**

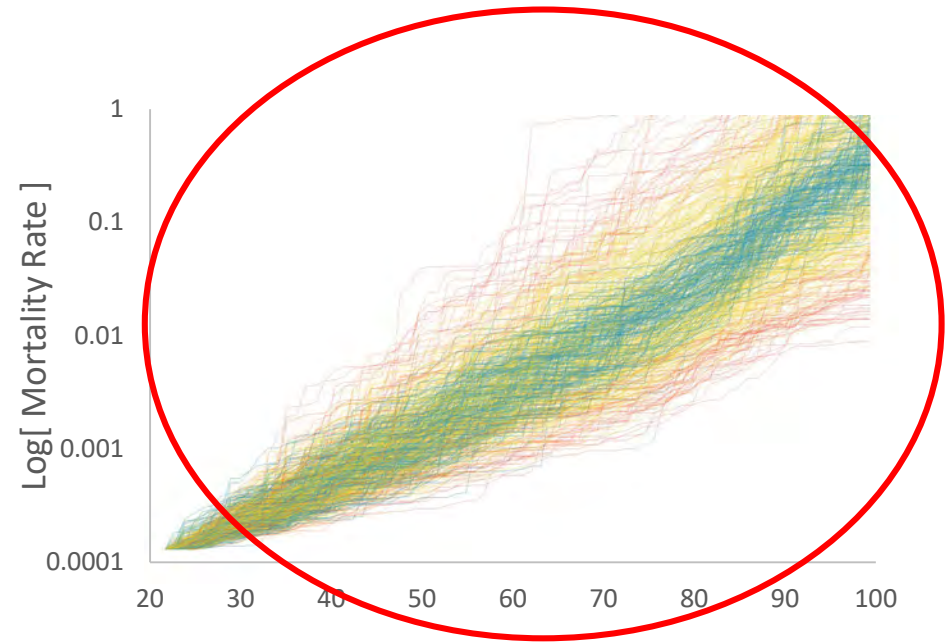
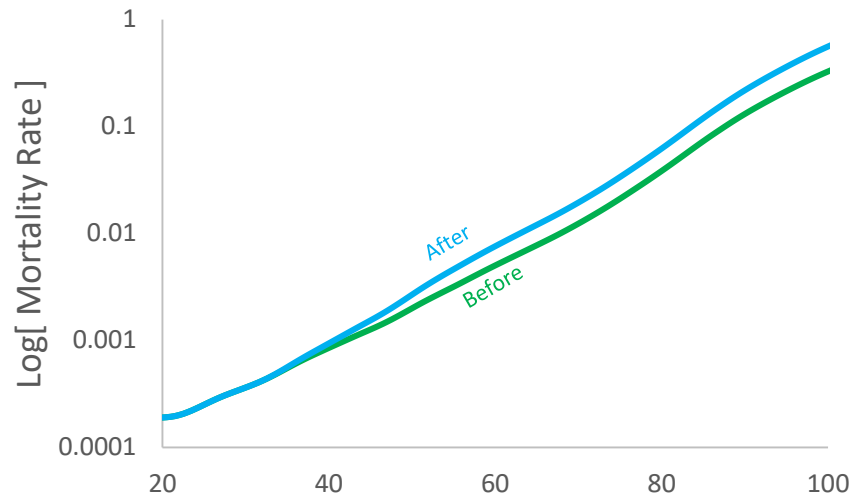


# What our clients are still looking for???





# Long term mortality data on population



# Thank you

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