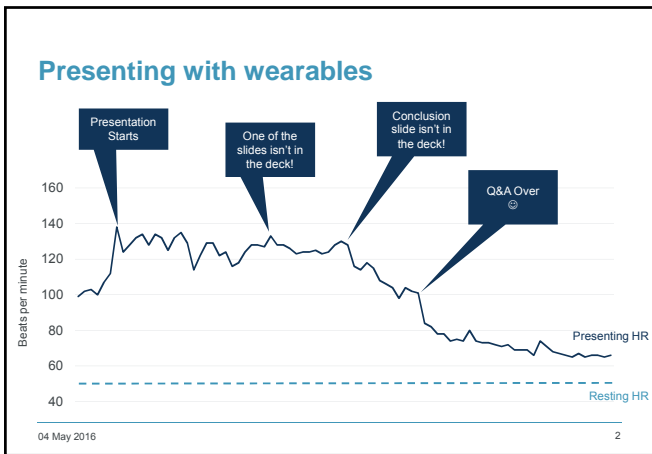
 Institute and Faculty of Actuaries

Well, Well, Wellness (and Wearables)

Jonathan Hughes

04 May 2016

Icons made by Freepress, sourced from www.flaticon.com and licensed under CC BY 3.0





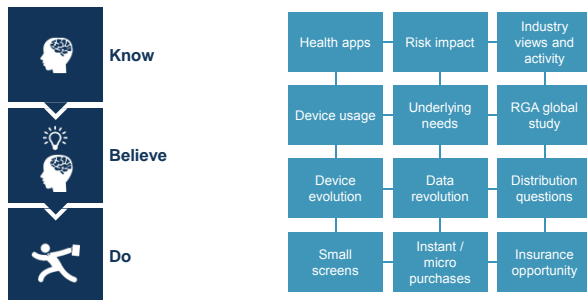
What is Wellness?

Dictionary.com	“ The quality or state of being healthy in body and mind, especially as the result of deliberate effort ”
User	“ A way of tracking and improving my health & lifestyle and getting rewards from the improvements ”
Insurer	“ A means of improving claims and persistency experience and an opportunity to truly engage with consumers ” Moving perceptions of insurance from cost now (negative) to benefits now (positive)

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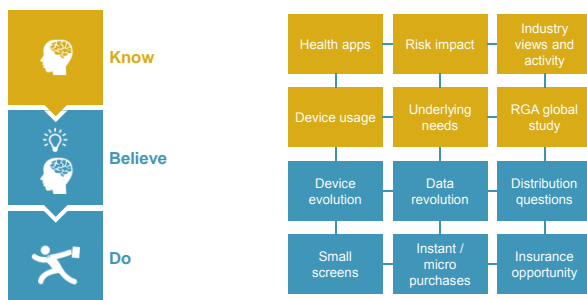
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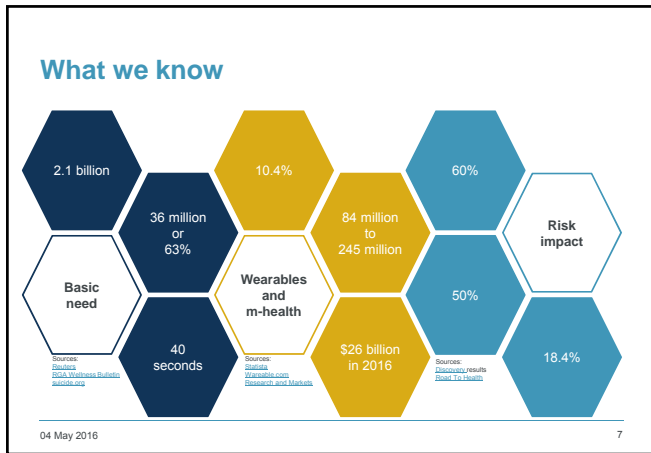
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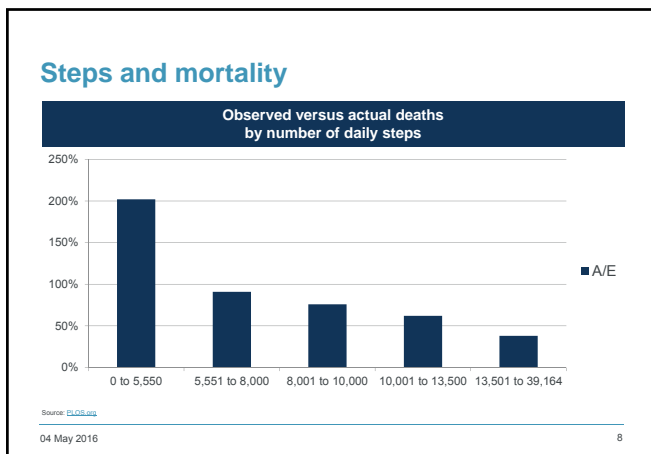
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Blue Shield: Wellvolution

Background	Programme	Results
<ul style="list-style-type: none"> California non-profit health insurer 5,000 employees Internal Wellness initiative is called "Wellvolution" 	<ul style="list-style-type: none"> Employees assigned challenges Earn points for completing them Encouraged to share results and rewards via social media 	<ul style="list-style-type: none"> Smoking reduced 50% Hypertension reduced 66% \$3 million per year saving in insurance premiums Divergence in disability claim rate between participants and non-participants 60% increase in participation

ROI: **\$3:\$1**

Sources: [BlueShield.com](#), [BlueShield.com](#), [BlueShield.com](#), [BlueShield.com](#), [BlueShield.com](#), [BlueShield.com](#), [BlueShield.com](#), [BlueShield.com](#), [BlueShield.com](#), [BlueShield.com](#)

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RGA Answering the key question:
"What do our clients need from RGA in Wellness?"

Dedicated Global Wellness project	Actively supporting client initiatives on 4 continents	Global Wellness study
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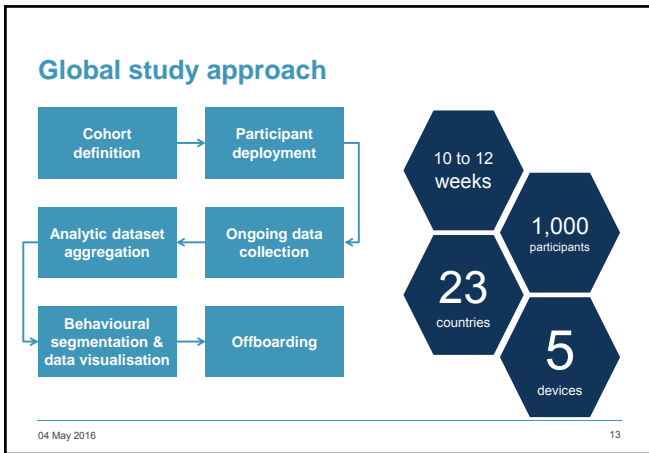
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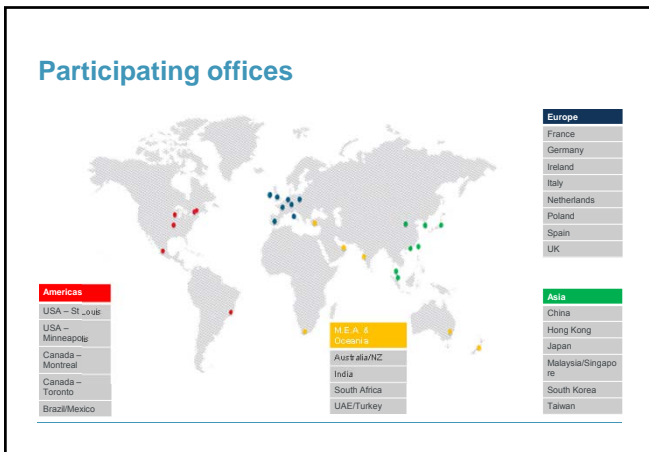
Dedicated Global Wellness project	Actively supporting client initiatives on 4 continents	Global Wellness study
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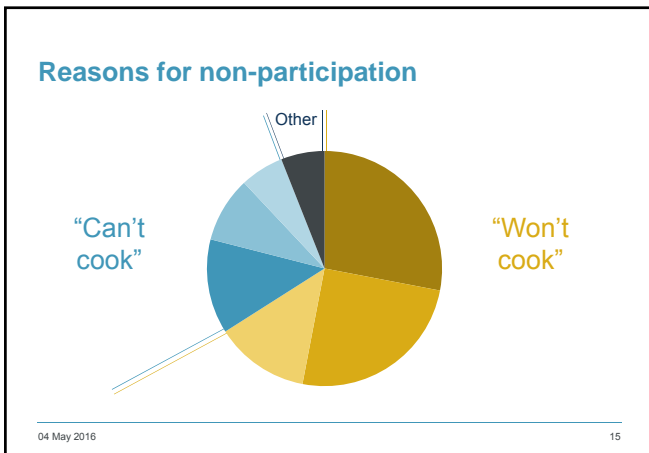
- Gather data
- Test real-world usage
- See relevance and reliability
- Behavioural insights
- Understand the skills required

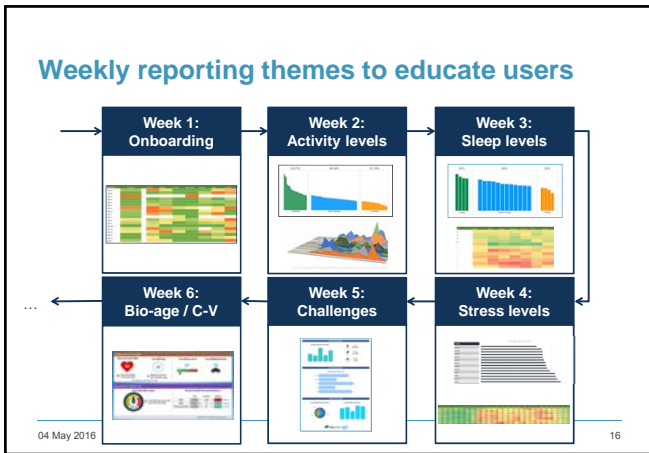
Data over Opinion

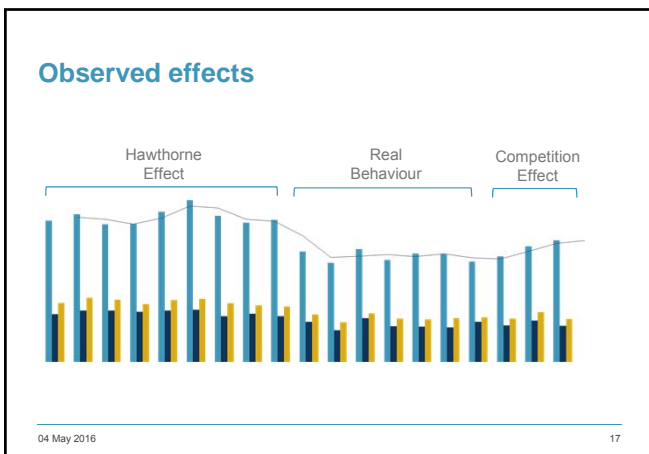
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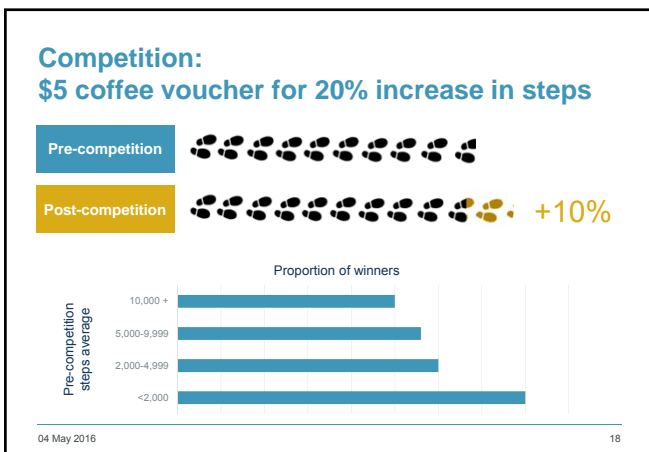


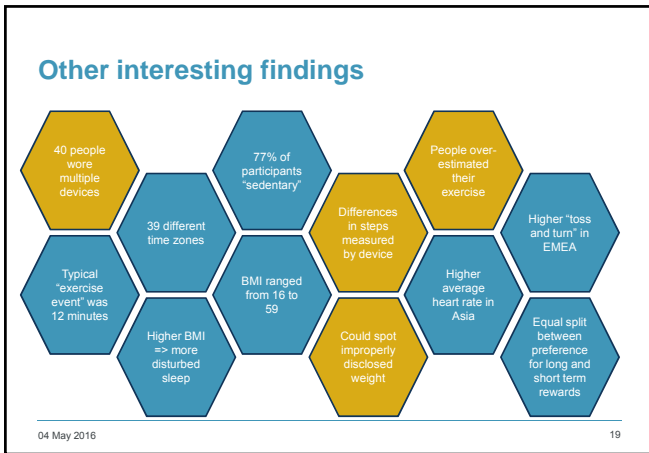


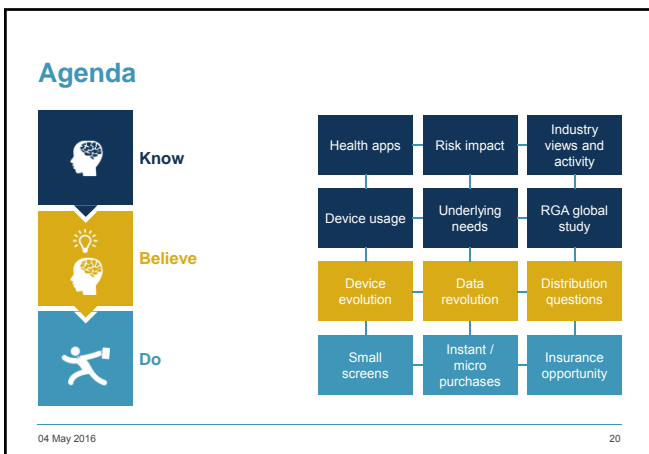








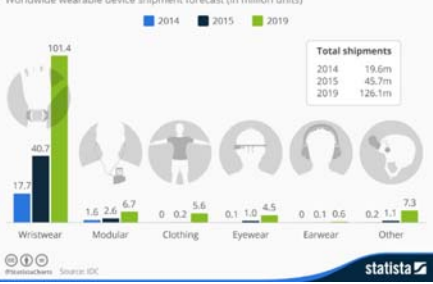






Where-ables

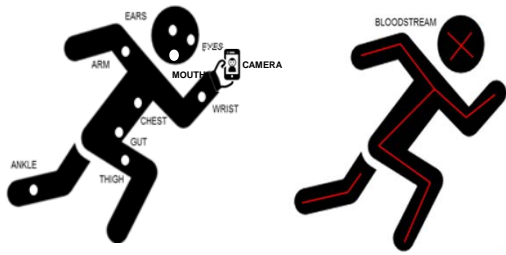
The Predicted Wearables Boom Is All About The Wrist



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Where-ables



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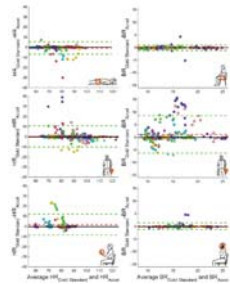
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Where-ables

BiPhone: Physiology Monitoring from Peripheral Smartphone Motions

Javier Hernandez, Daniel J. McNeill and Rossalind W. Picard

Abstract: The large-scale adoption of smartphones during recent years has created novel opportunities to improve health monitoring and care delivery. In this work, we demonstrate that motion sensors available on off-the-shelf smartphones can capture physiological parameters of a person during ordinary activities with which being required to hold or grip a phone. In particular, we describe methods to extract heart rate monitoring data from accelerometer data and compare these with measurements obtained using ECG-based sensors. We evaluated this accuracy on 17 people across different cell body motion types and pose variations and were able to track heart rate within an error of 1.8 beats per minute (BPM) in and 3.5 beats per minute (BPM) in one scenario. Although different motion conditions, participants also showed low measurement error during regular phone activities, such as when watching a video or holding a pen, supporting existing research that will compatible sensor data for some conditions.



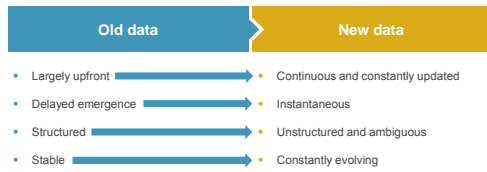
Source: MIT

This is our problem - because it alters user acceptance and quality of measures

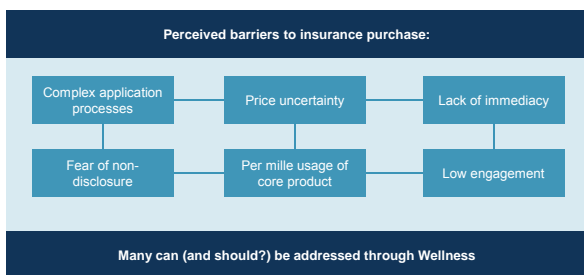
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Device evolution, data revolution



Why Wellness?



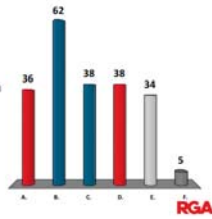
Why Wellness?



Why Wellness?

If you were writing a business case for a wellness proposition for your company what would be the main driver:

- A. Avoid the healthiest lives being selected away from us
- B. More engagement with customers
- C. Opportunities to collect more data on customers
- D. More sales
- E. Better persistency
- F. Other

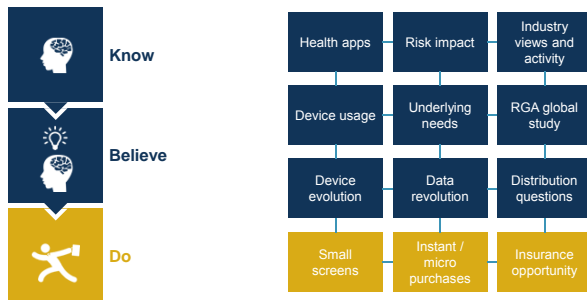


Source: RGA Client Conference 2016

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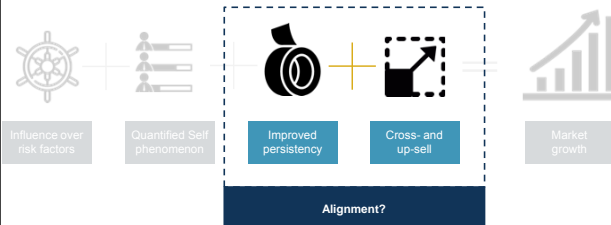
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Challenges for the UK market



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“If you want to catch fish, go where the fish are”

A tale of two halves

In 2015, more than

1/2

of UK life insurance searches started on a small screen

Conversion rates for small screen clicks were typically around

1/2

those from desktops

Familiar interfaces, instant purchases

Source: [Tov](#)

Source: [Health](#)

Source: [MobInsurance](#)

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The insurance proposition

	Current practice	Future practice
Offer:	• Same offering for all	• Segmented offering based on risk
Data:	• Collect all data from the customer	• Ask the customer to use their data
Risk:	• Risk assessment based largely on medical history	• Holistic range of indicators of future mortality / morbidity
Role:	• Sell policy, collect premiums, pay claims	• Continual engagement based on aligned outcomes

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Important elements



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“Human progress is furthered not by conformity

but by aberration.”

H.L. Mencken

wellness@rgare.com

Questions **Comments**

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