

Wellness Data, the Next UBI

Dion Oryzak | March 2017

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Have you ever fallen asleep behind the wheel?

- More than one in three drivers report having fallen asleep behind the wheel at some point in their lives
- More than one in ten has fallen asleep behind the wheel in the past year
- More than one-in-five fatal car accidents involves a drowsy driver



Ref: <https://www.aaafoundation.org/drowsy-driving>



Wellness data used in Health, not P&C

- Wellness data widely used in Health Insurance
 - Health Risk Assessments/Questionnaire: lifestyle choices, including meals, sleep, work and exercise, in addition to seatbelt usage and speeding
- A sleeping giant for P/C Insurance
 - Current UBI application focus on behaviors surrounding the insured asset, but not a policyholder's larger decisions about wellness
 - A more effective approach might address how to minimize underlying risk factors that - when not properly accounted for - cause or contribute to P/C losses



Obese at greater risk in auto collisions

Americans with a body mass index (BMI) over 35 are more than 50 percent more likely to be involved in fatal car accidents.

- *Emerg Med J* 2014;Vol31



Good mental health improves workers comp risk

Workers reporting "high stress" have medical costs nearly 50% higher when compared with workers reporting lower levels of stress.

- *Journal of Occupational & Environmental Medicine* 1998;Vol40

Eyesight testing reduces auto losses

Refinements to eyesight testing requirements could save tens of millions of dollars in annual claims costs.

- 2012 report from RSA

Prototype on Auto Insurance



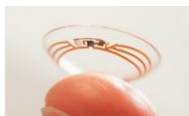
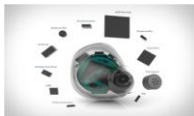
Wearable are now commonplace

- Activity Tracker
 - Monitor and track fitness-related metrics such as distance walked or run, calorie consumption, and in some cases heartbeat and quality of sleep
 - Fitbit, Jawbone, Garmin, Misfit, etc.
- Smartwatch
 - Like wearable computers. Many run mobile apps, play music, answer phones, send text, collect information from internal or external sensors, etc
 - Samsung Gear, Apple Watch, Sony SmartWatch, etc



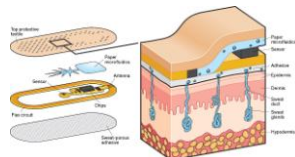
Smart earbuds, earrings and lenses are hidden in plain sight

- Smart Accessory
 - o Earbuds, Earrings
 - o Integrated sensors for tracking movement, and some may tracking core temperature, heart rate, blood pressure and other health matrix
- Smart Lens
 - o Google and Novartis developed a glucose-sensing contact lens that is able to detect the glucose level from human tears



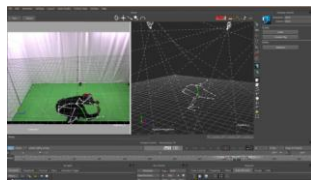
Sweat sensors, the 'smart bandaid'

- Sweat Sensor
 - o Sweat is a rich source of chemical data that could help doctors determine what is happening inside the human body
 - o Researchers have devised a soft, flexible, wearable sensor array to continuously monitor changes in four molecular components of sweat and to provide real-time tracking of a person's health



Smart clothing used on industrial sites

- Wearable Platform
 - o Incorporate wearable technology, artificial intelligence and building information modeling to create an ecosystem





Life insurance leaders adopt Wellness

In April 2015, **John Hancock** partners with **Vitality** to integrate life insurance with a comprehensive healthy living program for consumers

- o The products offer potential for savings on annual premiums, as well as discounts and rewards from leading retailers to encourage policyholders to take small steps to improve their health
- o New policyholders receive a free Fitbit to help track their progress



Allstate – Driver Safety Ratings patent

• Driver Safety Ratings by Allstate

- o Revealed in a patent application
- o Take into account of speed laws, road signs, traffic signals
- o Incorporating real-time feedback such as warnings that you are driving over the speed limit or approaching a stop sign
- o Goes beyond telematics. Data collected by vehicle includes your **heart rate, electrocardiograph signals and blood pressure** through your hands from sensors embedded in the steering wheel



State Farm – Total Impairment Score

• Total Impairment Score by State Farm

- o Revealed in a patent application
- o Combine biometric measurements with automotive data to create a "total impairment score"
- o Monitor your every move while driving, measure your emotions, detect angry behavior and deliver stimuli such as music to calm you down ("Emotion Management System")
- o The system can monitor below biometrics:
 - Heart rate
 - Grip pressure on the steering wheel
 - Body temperature
 - Arm movement
 - Head direction and movement
 - Vocal amplitude and pattern
 - Respiration rate



Workers Comp – AIG partners with Human Condition Safety

- AIG partnered with a startup “Human Condition Safety”, who makes wearable devices to monitor the movements of employees in factories, on construction sites and at other hazardous workplaces to reduce on-the-job accidents
- The system uses sensors attached to the back of workers' safety vests and transmits data about their movements in real time
- Could potentially reduce workplace injuries and decrease fraud in Workers Compensation



Issues to be addressed

- Privacy
- An automated system is not sophisticated enough to account for the unique characteristics of individual drivers, e.g. if a driver is in recovery from a heart attack, or on medication, etc
- What a potential health score may mean
- Regulatory issues



Future of Wellness in Insurance

- Foresee the Change
 - Millennials will dominate the market in the years to come
 - The least engaged of any generation presently buying insurance
 - The integration of high-tech wearables into insurance underwriting or rating may promote the engagement of Millennials
 - “Worried well” generation - increasingly join in health and wellness activities for prevention or reassurance rather than waiting for treatment
- Be Innovative
 - Think out of box and not be limited by current concerns
- Be ahead of Market
 - Move fast and play offense stead of defense.

Reference

- Jim W.(2015): Getting Well Soon: The Next Trillion-Dollar Industry for P/C Insurers. *Carrier Management*, 2015 Jun;

Questions?

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Inertia and Incentives

Inertia

- Insurers
- Regulators
- Consumers



Incentives

- Discounts
- Penalties
- Effort > Benefit