Session 7 – Tech Trend-Watching for Health Insurance and How to React

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Tech trend-watching for health insurance (and how to react)

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Advanced analytics
Hybrid cloud computing
Quantified self and wearables
Collaboration technologies
User experience technologies
Telematics
Right speed IT
Autonomic platforms
Augmented reality
Internet of things
Industrialized analytics
Automated factories
Liquid workforce
Predictable disruption
Digital trust
Platform economy

Gartner, Top 10 Technology Trends Impacting Life and P&C Insurers in 2020, 16 April 2019, Jürgen Weiss, Katrin Martens, Jeff Hayes, Laurie Smith
Accenture, Technology Vision for Insurance 2016: People First, 2016, Johan Cusano and Andrew Starrs
The nature of risk is changing

Source: CDC

Source: Oxford Alliance Group

Source: WHO

Physical inactivity, poor nutrition, smoking, alcohol abuse

Cancer, diabetes, heart and lung diseases

Pneumonia & Tuberculosis

Diarrhoea and enteritis

Diphtheria

Together caused 30% of all deaths

A new type of life insurance

A new type of life insurance

Cancer, diabetes, heart and lung diseases

1900

2003

2016

The nature of risk is changing
Number of steps per day for one client

Number of steps per day for a population of clients using wearables

10,000 and 12,500 target values according to the activity program stand out in the image.

Source: Discovery Vitality data

Difference in Hospital Admission Rates for highly active clients

Published peer-reviewed article: Fitness-Related Activities and Medical Claims Related to Hospital Admissions – South Africa, 2006. Estelle V. Lambert, PhD; Rosanne da Silva; Deepak Patel, MD, MSc; Libero Fatti, PhD; Tracy Kolbe-Alexander, PhD; Adam Noach; Craig Nossel, MBChB, MBA; Wayne Derman, MBChB, PhD; Thomas Gaziano, MD, MSc. Preventing Chronic Disease: Public Health Research, Practice and Policy, Volume 6: No. 4, October 2009.

Verified health outcomes

For engaged members versus non-engaged members:
- Hospital costs **10% - 40% lower** (non chronic)
- Hospital costs **10% - 30% lower** (chronic)
- Admission rates **10% lower**
- Length of stay in hospital **25% lower**
- Hospital cost per patient **14% lower**

Applications

1. Front end selection
2. Differentiated increases
3. Impaired lives
4. Funding incentives
measuring things

Data that can be collected

- Acceleration
- Distance
- Braking
- Location
- Cornering
- Time
- Speeding
- Mobile usage

Raw data

Rotated data to allow for actual device positioning

Allows accurate measurement of g-force during harsh acceleration
On average, clients improve their driving behaviour by **15% within the first 30 days** and maintain this improvement **over time**.

Source: Discovery Insure telematics data from December 2014 to January 2016.
Complication reduction for each 1% point drop in A1c


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<thead>
<tr>
<th>Network effect</th>
<th>Differences in provider costs</th>
<th>Impact of guidance &amp; info</th>
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<tbody>
<tr>
<td>Potential impact of managed referrals</td>
<td>-</td>
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<tr>
<td>No. of providers</td>
<td>Value</td>
<td>-</td>
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Segmentation of the population into risk groups using the Johns Hopkins University ACG Case-mix system, then summarized into risk categories using Discovery Health’s Resource Utilization Band (RUB) classification system.

Source: South African experience from Discovery Health data.
Hospital Efficiency analysis

Outlier in terms of efficiency

part 3 conclusions

1. Skills
2. Juxtapositions
3. Actuary role
Now, try not to be overwhelmed by all this technology.