Wearables & Health-Apps –

Fitness-tracker or an indicator of a changing mindset regarding medical data and information?

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Key Findings

- **35% of respondents use a wearable or a health-app – the highest percentage of users are NOT the within ‘digital natives’, but the older age group (28-55 years)**
- **Wearable users act more health-conscious, follow a healthier and more balanced diet and are physically more active than non-user**
- **Regular users, depending on the frequency of usage, report a substantial improvement of their health behavior and are convinced that wearables are very helpful in reaching health-related goals**
- **Wearable users remain more highly motivated to improve their health condition than non-users – but, wearable users are less satisfied with their current health status and are motivated to improve further**
- **However, in terms of knowledge about medical topics, wearable users are no different from non-users: Only one in five know their blood glucose or cholesterol levels, independent of wearable users or non-users**
- **In addition, risk factors for common diseases are only known by a fraction of respondents – irrespective of wearable users or non-users**
- **In conclusion, wearables are fitness trackers only and are not an expression of a changing mindset regarding information, knowledge and management of health using data and information**

35% of respondents use a wearable - most user are not the 'Digital Natives' but within the older age groups

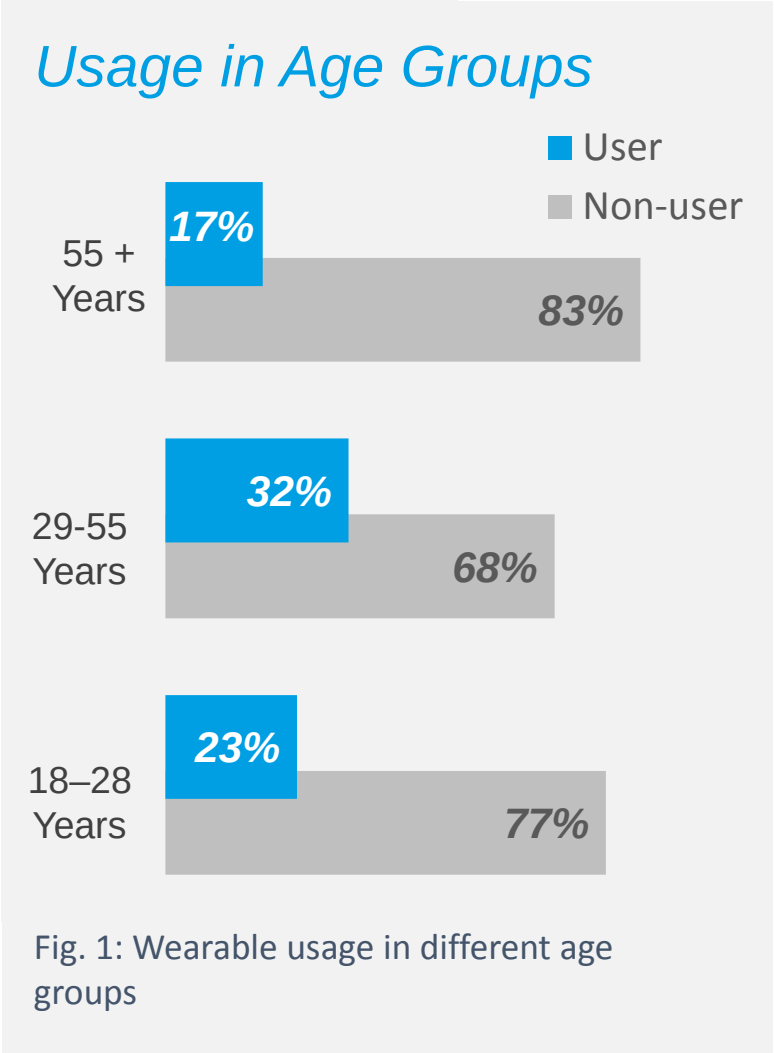


Fig. 1: Wearable usage in different age groups

- **35%** of respondents use a wearable or a health-app (data not shown)
  - 15% use their wearable daily
  - 10% use it weekly
  - 10% rarely
- There is a considerable difference in usage in the different age groups
  - **32%** of 29-55 year old use a wearable
  - **23%** of 18-28 year old, the so-called 'Digital Natives' use a wearable
  - In the 55+ age group, only **17%** reported using a wearable

Wearable user act more health-conscious, eat healthy and are physically more active than non-user

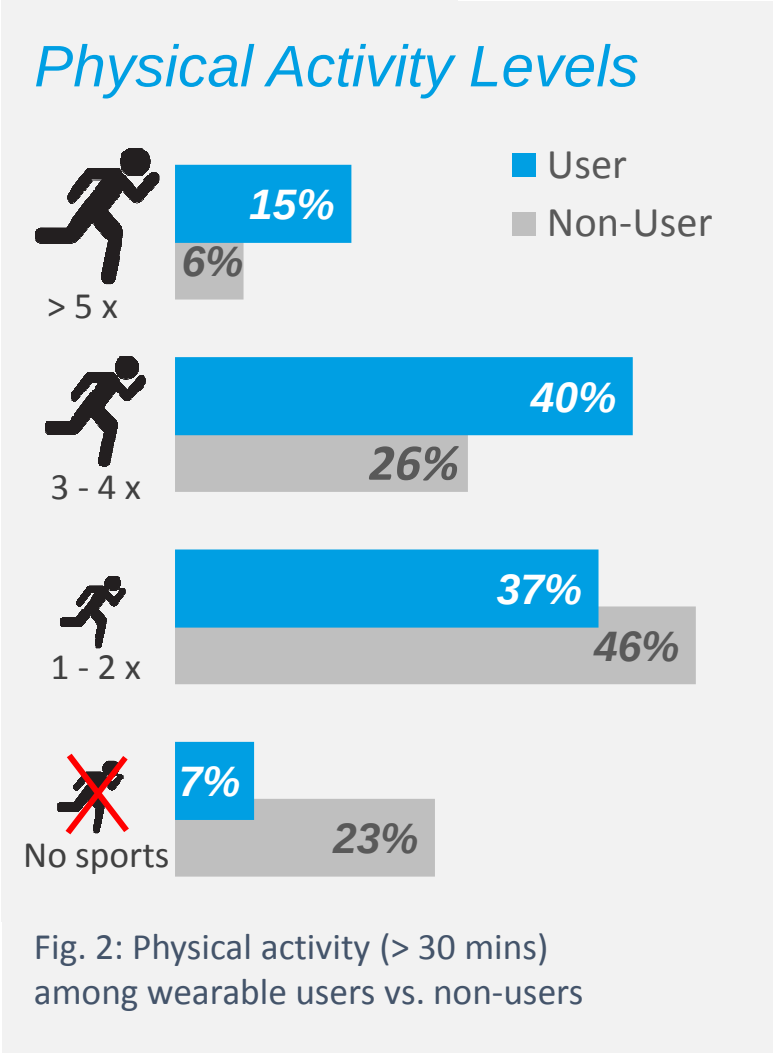


Fig. 2: Physical activity (> 30 mins) among wearable users vs. non-users

- **85%** of wearable users act health conscious, compared to 72% of non-users
- **92%** of wearable users choose a healthy and balanced diet (72% of non-users)
- Wearable user are physically more active than non-user (see Fig. 2)
  - **40%** of user (but only 26% of non-user) are physically active 3-4 x per week
  - **15%** of user (but only 6% of non-user) >5 x per week
  - Only **7%** of users but **23%** of non-users do not engage in any physical activity at all

Regular users, depending on frequency of usage, have noted a substantial improvement of their health behavior

Improvement in Health Behavior

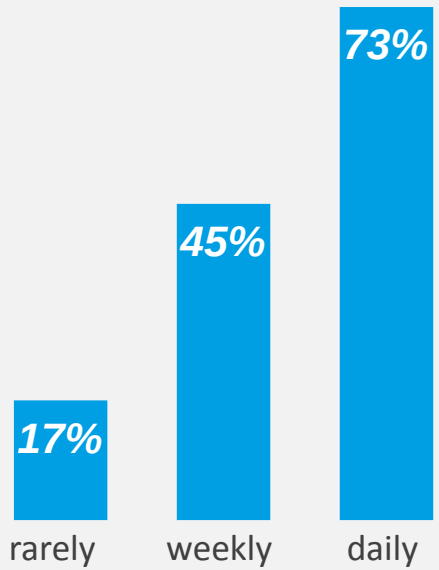


Fig. 3: Substantial improvement of health behavior in wearable user groups

- **62%** of regular wearable users have noted a considerable improvement in their health behavior
- Interestingly, women were more likely to notice an improvement than men (data not shown)
- The frequency of usage determines the results perceived (see Fig. 3):
  - **73%** of daily users noted a substantial improvement
  - **45%** of weekly users
  - **17%** of rarely users
- **51% of users** with more than **6 months** usage, but only 30% of users with shorter usage reported an improvement

Wearable users are more highly motivated to improve their health condition than non-users

Motivation of Users

53% **… want to lose weight**

41% **… want to take better care of their health**

62% **… want to do more sports**

84% **… are NOT satisfied with their current health status**

- **53%** of wearable users want to lose weight, whereas only 41% of non-users
- **41%** of users want to take better care of their health, but only 10% of non-users
- **62%** of users want to do more sports, but only 52 % of non-users

- **Only 16% of wearable users are satisfied with their current health status as opposed to 26% of non-users**

User are convinced that wearables are helpful in reaching health-related goals

Helpful or not?

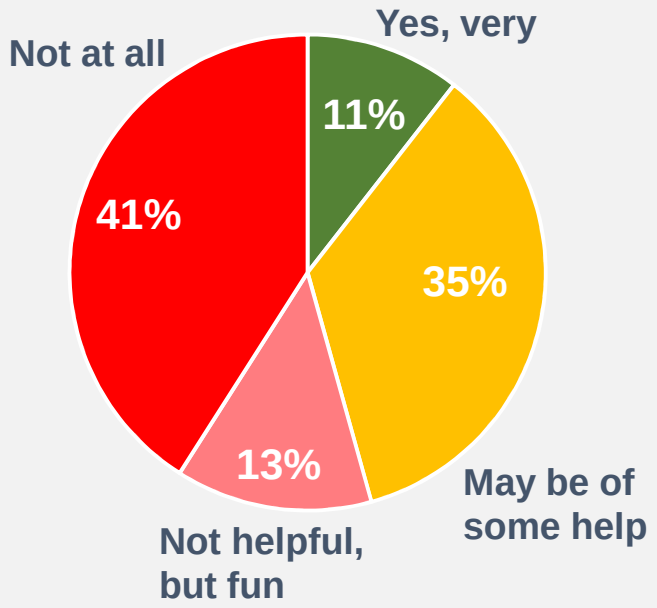


Fig. 4: Are wearables or health-apps helpful in reaching health-related goals

- **11%** reported that wearables are very helpful in reaching health-related goals (see Fig. 4)
- **35%** reported that they may be of some help – interestingly, even 25% of non-users were of that opinion
- **13%** stated they are not very helpful but fun
- **41%** are convinced that wearables are not helpful at all – however, none of these respondents used a wearable or a health-app

Only one in five respondents know their blood glucose or cholesterol level, independent of wearable user or not

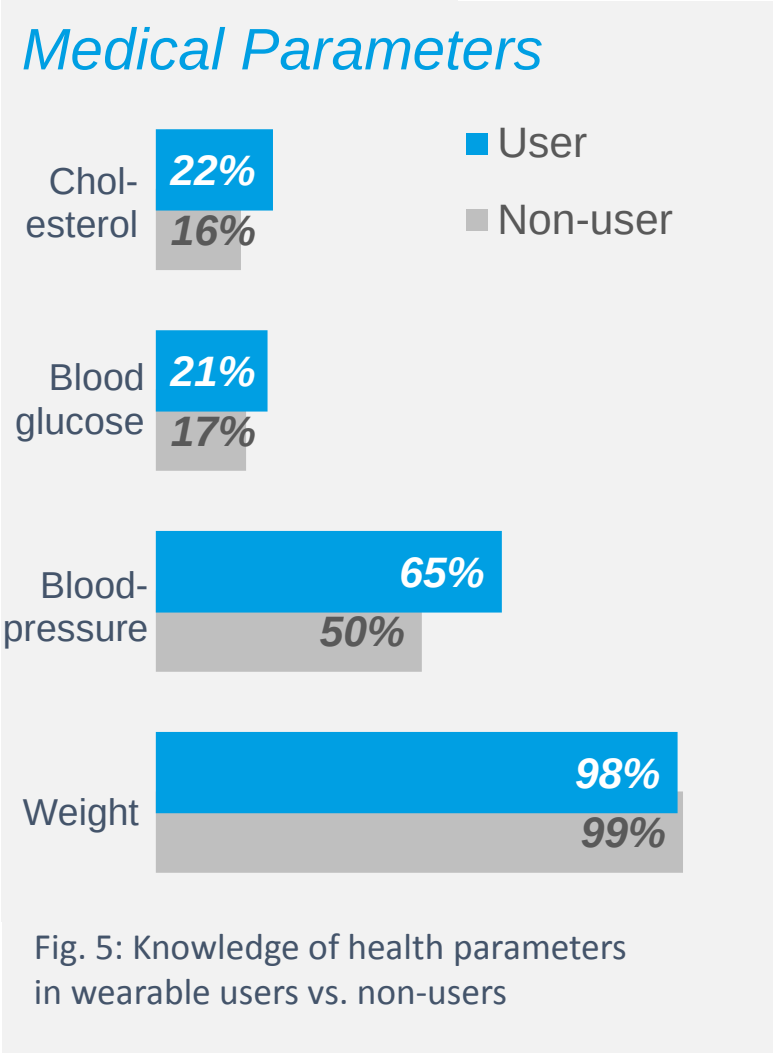
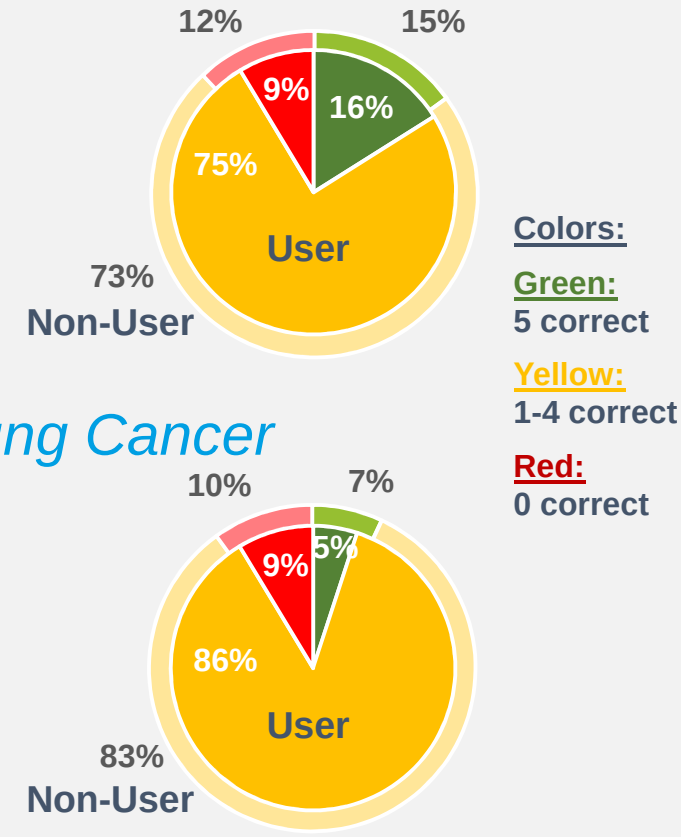


Fig. 5: Knowledge of health parameters in wearable users vs. non-users

- Almost everybody knows his/her weight (see Fig. 5)
- **65%** of wearable users know their blood pressure, which is a significantly higher percentage than in non-users (50%)
- However, only about 1 in 5 know their blood glucose or cholesterol level – differences between users and non-users are not statistical different:
  - **21%** of users vs. 17% of non-users reported knowing their blood glucose level
  - **22%** of users vs. 16% of non-users reported knowing their cholesterol level

Risk factors for common diseases are only known by a fraction of respondents – wearable users or non-users

Cardiovascular Diseases



Lung Cancer

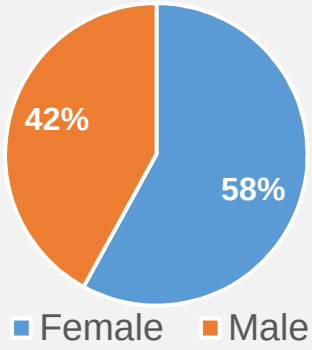
Fig. 6: Awareness of risk factors for cardiovascular diseases and lung cancer

- **16%** of wearable users and **15%** of non-users identified all (5) main risk factors for cardiovascular diseases correctly (Fig. 6)
- Individual analysis showed that:
  - 78% of respondents recognized high blood pressure as a major risk factor,
  - Only 54% singled out diabetes correctly
- **9%** of users and **12%** of non-users did not know any risk factor for CVD
- The 5 main risk factors for lung cancer were identified by only **5%** of wearable users and **7%** of non-users:
  - 87% of the respondents identified smoking as a major risk factor
  - 72% recognized secondary smoke

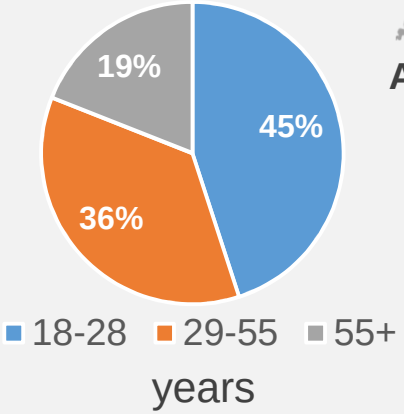
Survey sample

Respondents

Gender



Age Group



- Online survey (supplemented with few face-to-face interviews)
- Multiple choice questionnaire
- Cross-sectional, non-representative sample
- Fielding period: 13.10.2017 – 29.11.2017
- 514 respondents:
  - 217 male
  - 295 female
- Study was conducted by students from Hochschule Fresenius as part of their program ‘Management and Health Economics’:
  - Natalie Neufer
  - Laura Wagner
  - Kim Stephan
  - Yannick Michels