Results, 1st Quarter 2016

"Patient Engagement"
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HIMSS ANALYTICS – WHO WE ARE

- HIMSS Analytics in Europe provides healthcare organisations, governments and industry with extensive data resources and services about the adoption and use of healthcare IT in Europe. HIMSS Analytics’ offerings include database and advisory solutions which encompass market research, IT adoption benchmarking, IT Maturity Models for topics like Electronic Medical Records or Continuity of Care. These offerings are designed to support Management and CIOs, IT Executives and Clinicians from across Europe to compare and measure their progress.

- Services categories:
  - Maturity models
  - Research & Evaluations
  - Market data
SURVEY OVERVIEW
GENERAL

• Objectives
  ◦ Evaluation of trends and issues in the European eHealth sector
  ◦ Insights into current and desired states of eHealth in Europe
  ◦ Discussion impulses for the European eHealth community

• Study design
  ◦ Structured qualitative online survey
  ◦ Participation via personal e-mail invitation
  ◦ Participation via shared link on several HIMSS media channels

• Survey period
  ◦ 8 February - 30 March 2016

• Target groups
  ◦ Employees in health facilities (e.g. Physicians, CIO’s, CEO’s, Nurses)
  ◦ Employees in the eHealth related academic sector (e.g. Lecturer)
  ◦ Employees in various eHealth related organisations (e.g. Industry representatives)

Source: HIMSS Analytics; Study „eHealth trend barometer“; Survey period February to March 2016
SURVEY OVERVIEW

QUESTIONS “PATIENT ENGAGEMENT”

1. Are you working in a health facility?

2. Does your organisation have a formal strategy to enable patient engagement through information technology?

3. Which of the following tools does your organisation provide in order to involve patients in their personal healthcare?

4. How likely is it that you use one of the following tools to get involved in your personal healthcare?

5. Which factors and incentives are needed to further involve patients/consumers in their personal healthcare in your country?

Source: HIMSS Analytics; Study „eHealth trend barometer”; Survey period February to March 2016
SURVEY OVERVIEW

QUESTIONS “PATIENT ENGAGEMENT”

6. Mobile applications as a key factor for more patient engagement. How important are the following functions on a mobile device?

7. Are patients surveyed by your health facility relating to their use of technology?

8. Have you ever completed a survey from a health facility relating to your use of technology?

9. How will the environment for eHealth innovation and investment in your country develop over the next 12 months?

Source: HIMSS Analytics; Study „eHealth trend barometer“; Survey period February to March 2016
SURVEY OVERVIEW

DEMOGRAPHIC

High participation from D-A-CH region (the first two survey waves in 2015 were conducted in this region only). Next largest feedback comes from Nordic and Benelux countries.

“Other” region comprises respondents from the United States, Italy, Canada, Greece and Turkey.

Source: HIMSS Analytics; Study „eHealth trend barometer“; Survey period February to March 2016; Total sample: n=540

<table>
<thead>
<tr>
<th>Region</th>
<th>n</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>D-A-CH region</td>
<td>91</td>
<td>Austria</td>
</tr>
<tr>
<td></td>
<td>90</td>
<td>Germany</td>
</tr>
<tr>
<td></td>
<td>137</td>
<td>Switzerland</td>
</tr>
<tr>
<td>Nordic countries</td>
<td>35</td>
<td>Denmark</td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>Finland</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>Norway</td>
</tr>
<tr>
<td></td>
<td>26</td>
<td>Sweden</td>
</tr>
<tr>
<td>Benelux states</td>
<td>3</td>
<td>Belgium</td>
</tr>
<tr>
<td></td>
<td>72</td>
<td>Netherlands</td>
</tr>
<tr>
<td>UK &amp; Ireland</td>
<td>2</td>
<td>Ireland</td>
</tr>
<tr>
<td></td>
<td>26</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>Other region</td>
<td>12</td>
<td>Other</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>Unknown</td>
</tr>
<tr>
<td>Total</td>
<td>540</td>
<td></td>
</tr>
</tbody>
</table>

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The majority of participants work in a health facility. Only in the Nordic countries the participation from “other” organisations is higher than those from health facilities. Health facilities include hospitals, medical practice and medical care centres. Respondents working for “other” organisations are employed in an IT Company (17.8%) or in health policy (5.7%), as those are exclusive categories regarding the work in a health facility. 14.1% of the respondents either didn’t specify their position (“unknown”: 2.6%) or stated other activities (11.5%). Respondents who are employed in a health facility were either working in the IT Department (22.4%) or as physician (15.5%).

Source: HIMSS Analytics; Study „eHealth trend barometer”; Survey period February to March 2016; Valid cases for working in a health facility: n=517 without “Other region” and “Unknown job category”; Valid cases for job categories: n=540
OVERALL RESULTS
PATIENT ENGAGEMENT IN EUROPE

- A majority of health organisations claim to have a formal strategy to enable patient engagement through information technology.
- A patient portal is the most popular tool used to enable patient engagement. Profiles in social media networks are the second preferred tool.
- Also the majority of respondents would most likely use patient portals to get involved in their personal healthcare. But at the same time, it is quite unlikely that patients/consumers would use any profile in a social media network as a tool for that purpose.
- Nevertheless, several factors are needed to drive patient engagement in Europe. The majority claim that “better products/offerings for patients” and “financial incentives from health insurance/insurer” are needed to further involve people in their personal healthcare.
- Such products should offer several functions, like applications for mobile devices should be able to provide access to personal medical records, to monitor the users vital signs in chronic diseases, to manage appointments with healthcare providers and to have a medication schedule with a reminder functionality.
- As for the current situation for most of the countries in Europe, required and desired offerings wouldn’t be identified unless health facilities don’t survey their patients around their use of technology.

Source: HIMSS Analytics; Study „eHealth trend barometer”; Survey period February to March 2016
RESULTS – FORMAL STRATEGY

2. Does your organisation have a formal strategy to enable patient engagement through information technology?
   [only participants who are working in a health facility]

A majority of health organisations (58%) claim to have a formal strategy to enable patient engagement through information technology in place. Large differences exist between the surveyed regions.

While 79% of health facilities from the Nordic countries and 73% from the UK indicate to have a patient engagement strategy formalised, this is the case in only half (50%) of health facilities in the D-A-CH region (44% in Germany, 46% in Austria, 60% in Switzerland). As a consequence it seems that patient engagement is perceived being less important in D-A-CH countries in comparison to the other regions.

Source: HIMSS Analytics; Study „eHealth trend barometer“; Survey period February to March 2016; only employed in a health facility; without “Don’t know” and without “Other region”; Total: n=281; D-A-CH: n=173; Nordics: n=37; Benelux: n=50; UK: n=22
Patient portals are the most popular tools used to enable patient engagement. Profiles in social media networks are the second highest. Smartphone applications used to measure and track health and vital signs and similar health-related applications from other devices (like fitness tracker, smartwatches) still only play a minor role.

A comparison of the different regions reveals that health facilities in the Nordic countries are much better at providing IT tools for patient engagement, especially when it comes to the use of patient portals. Respondents from the D-A-CH region (39%) and the Benelux states (35%) stated, for the most part, that their organisations don’t provide any patient engagement related IT tools at all.

Source: HIMSS Analytics; Study „eHealth trend barometer“; Survey period February to March 2016; Multiple answers possible; only employed in a health facility; without “Don’t know” and without “Other region”; Valid responses: D-A-CH n=211, Nordics n=62, Benelux n=76, UK n=27
RESULTS – TOOLS LIKELY USED TOTAL MEAN

4. How likely is it that you use one of the following tools to get involved in your personal healthcare?
[only participants who are not working in a health facility]

The majority of respondents would most likely use patient portals (Ø 1,19) to get involved in their personal healthcare. However, it is quite unlikely (Ø -0,52) that patients/consumers would use any profile in a social media network (e.g. Facebook group on healthy eating, smoking cessation tweets, Youtube videos for back exercises) as a tool for patient engagement.

It would also be likely for the respondents to use “smartphone applications” (Ø 0,57) and “non-smartphone applications” (Ø 0,49) for wearables, Bluetooth body scales or other mHealth devices to take care of their individual healthcare, no matter if those applications work in combination with a smartphone or if they are only for stand alone devices.
RESULTS – TOOLS LIKELY USED COUNTRY DETAILS

4. How likely is it that you use one of the following tools to get involved in your personal healthcare?
[only participants who are not working in a health facility]

Participants from the D-A-CH region not working in a health facility would most likely use patient portals to get involved in their healthcare (“likely” and “very likely” together: 61%), same for the Nordic countries (“likely” and “very likely” together: 91%).

As rather likely or unlikely rated is the use of mobile applications for smartphones, no matter if for measuring health and vital signs only with a smartphone or also with additional devices, in the Nordic countries and as well in the D-A-CH region.

It was “unlikely” for 60% of the respondents from the D-A-CH region and 43% of the respondents from Nordic countries to use social networks (e.g. Facebook group on healthy eating, smoking cessation tweets, Youtube videos for back exercises) as tool to get involved in their personal health care (“unlikely” and “quite unlikely” together).
4. How likely is it that you use one of the following tools to get involved in your personal healthcare?
[only participants who are not working in a health facility]

Participants from the Benelux region not working in a health facility would most likely use patient portals to get involved with their healthcare ("likely" and "very likely" together: 94%), same for UK and Ireland ("likely" and "very likely" together: 90%).

71% of the respondents said it would be unlikely for them to use social networks (e.g. Facebook group on healthy eating, smoking cessation tweets, Youtube videos for back exercises) to get involved in their personal health care (Benelux states “unlikely” and “quite unlikely” together). 74% of participants from UK and Ireland had a strikingly different response and said they would be likely to use social networks for that purpose ("likely" and “very likely” together), unlike the rest of the regions.

However 57% from the Benelux states rated the use of smartphone apps in combination with additional devices as only “maybe” possible.

Source: HIMSS Analytics; Study „eHealth trend barometer“; Survey period February to March 2016; Multiple answers possible; only not employed in a health facility; without “Don’t know” and without “Other region”; Valid responses Benelux n=296, UK & Ireland n=103; “maybe” and values less than 11% not labelled.
RESULTS – DRIVERS TO INVOLVE PATIENTS

5. Which factors and incentives are needed to further involve patients/consumers in their personal healthcare in your country?

<table>
<thead>
<tr>
<th>Region</th>
<th>Financial Incentives</th>
<th>Legislation Changes</th>
<th>Better Products</th>
<th>Information about Benefits</th>
<th>None of the Mentioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>D-A-CH region</td>
<td>32%</td>
<td></td>
<td></td>
<td></td>
<td>2%</td>
</tr>
<tr>
<td>Nordic countries</td>
<td>17%</td>
<td></td>
<td></td>
<td></td>
<td>1%</td>
</tr>
<tr>
<td>Benelux states</td>
<td>22%</td>
<td></td>
<td></td>
<td></td>
<td>1%</td>
</tr>
<tr>
<td>UK &amp; Ireland</td>
<td>8%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>28%</td>
<td>20%</td>
<td>28%</td>
<td>24%</td>
<td>2%</td>
</tr>
</tbody>
</table>

Financial incentives from health insurance/insurer
Legislation changes towards greater participation
Better products/offers for the patient/consumer
Information about benefits for society in general
None of the mentioned and no other factors or incentives needed

The fact that several factors are needed to drive patient engagement seems to be clear, since only 1% of the respondents said that no factors and incentives are needed in general. The majority claim that “better products/offers for patients” and “financial incentives from health insurance/insurer” are needed to further involve people in their personal healthcare (each 28%).

For respondents from the D-A-CH region, financial incentives from health insurance/insurer are the first choice to push patient engagement in their countries (32%). Financial incentives as possible key factors were hardly mentioned by participants from the United Kingdom and Ireland (8%) in comparison to all other surveyed regions.

However, better products and offerings are first and foremost required in comparison to the other factors, in the Nordic countries (37%) and the Benelux states (31%) as well, to drive the involvement of people in their personal healthcare. In the United Kingdom and Ireland the hardest factor stated are legislation changes (34%).

Source: HIMSS Analytics; Study „eHealth trend barometer”; Survey period February to March 2016; Multiple answers possible; without “Don’t know” and without “Other region”; Valid responses: Total n=1031, D-A-CH n=613, Nordics n=198, Benelux n=163, UK & Ireland n=57
RESULTS – PREFERRED APP FUNCTIONS

6. Mobile applications as a key factor for more patient engagement. How important are the following functions on a mobile device (e.g. for your smartphone or tablet)?

Access to personal medical record: 53% very important, 32% important, 37% important, 49% not important.

Monitoring of your own vital signs in chronic diseases: 48% very important, 38% important, 43% important, 43% not important.

Manage appointments with healthcare providers: 43% important, 44% very important, 42% very important, 43% important, 34% not important.

Medication schedule with reminders: 20% not important, 60% very important, 42% very important, 24% important, 15% very important.

Contact details, reviews and service provided for location near health facilities: 26% important, 48% very important, 42% very important, 24% important, 15% very important.

Make an emergency call with GPS location: 24% important, 48% very important, 42% very important, 24% important, 15% very important.

Renewal drug prescription: 15% not important, 35% not important, 42% indifferent, 48% very important, 26% very important.

Educational clinical content: 15% not important, 35% not important, 42% indifferent, 48% very important, 26% very important.

Monitoring of your own vital signs in chronic diseases: 15% not important, 35% not important, 42% indifferent, 48% very important, 26% very important.

Animated first aid manual: 15% not important, 35% not important, 42% indifferent, 48% very important, 26% very important.

Overall, all the application functions on a mobile device which were rated gained a positive feedback.

The most important functions on a mobile device stated in descending order would be: access to personal medical record, monitoring of own vital signs in chronic diseases, the ability to manage appointments with healthcare providers and to have a medication schedule with reminder functionality.

Having access to an animated first aid manual or to monitor vital signs as a preventive care are the least important functions claimed by the respondents no matter from what geographical region they are.

Source: HIMSS Analytics; Study „eHealth trend barometer”; Survey period February to March 2016; Multiple answers possible; without “Don’t know” and “Other function”; Valid responses: Total n=5207; Descending order from most important to less important; “indifferent” and values less than 11% not labelled.
RESULTS – PREFERRED APP FUNCTIONS MEAN

6. Mobile applications as a key factor for more patient engagement. How important are the following functions on a mobile device (e.g. for your smartphone or tablet)?

<table>
<thead>
<tr>
<th>Function</th>
<th>Mean (Scale: -2 to +2)</th>
<th>D-A-CH Region</th>
<th>Nordic Countries</th>
<th>Benelux States</th>
<th>UK &amp; Ireland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to personal medical record</td>
<td>Ø 1.29</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monitoring of your own vital signs in chronic diseases</td>
<td>Ø 1.28</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manage appointments with healthcare providers</td>
<td>Ø 1.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medication schedule with reminders</td>
<td>Ø 1.21</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make an emergency call with GPS location</td>
<td>Ø 1.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact details, reviews and service provided for location near health facilities</td>
<td>Ø 1.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Renewal drug prescription</td>
<td>Ø 1.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational clinical content</td>
<td>Ø 0.80</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monitoring of own vital signs as preventive care</td>
<td>Ø 0.74</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Animated first aid manual</td>
<td>Ø 0.39</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Ø 1.06</td>
<td>Ø D-A-CH region</td>
<td>Ø Nordic countries</td>
<td>Ø Benelux States</td>
<td>Ø UK &amp; Ireland</td>
</tr>
</tbody>
</table>

All app functions gained a positive average feedback from the several surveyed regions (Values scale reach from minimum “-2” to maximum “+2”).

Having “access to personal medical record” is the most important application function for respondents from the Benelux states (Ø 1,51). For respondents from the Nordic countries, having “access to personal medical record” (Ø 1,42) is less important than being able to “manage appointments with healthcare providers” (Ø 1,51), which was the same case for respondents from UK and Ireland (Ø 1,50).

In the D-A-CH region, “monitoring of own vital signs in chronic diseases” (Ø 1,22) is the most important function in comparison to others, like being able to “manage appointments with healthcare providers” (Ø 1,12).

Source: HIMSS Analytics; Study „eHealth trend barometer”; Survey period February to March 2016; Multiple answers possible; without “Don’t know” and “Other function”; Valid responses: Total n=5207, D-A-CH n=3061, Nordics n=957, Benelux n=736, UK & Ireland n=277; Mean values scale range “not important at all” = -2 to “very important” = +2
In most of the surveyed regions patients are seldom asked by health facilities about their use of technology (“No”: 78%), except for the Nordic countries.

13% of the respondents working in a health facility in the D-A-CH region stated that their organisation surveyed their patients regarding their use of technology. In the UK this number is even lower (“Yes”: 9%).

Organisations categorised as health facilities in the Nordic countries seem to have a pioneering role in terms of having an overview about how patients use technology. Round about a half of the participants (“Yes”: 53%) working in a health facility from that region stated that their organisation surveys patients about their use of technology.

Source: HIMSS Analytics; Study „eHealth trend barometer”; Survey period February to March 2016; without “Don’t know” and “Other region”; only employed in a health facility; Valid cases: D-A-CH n=178, Nordics n=31, Benelux n=47, UK n=22
8. Have you ever completed a survey from a health facility relating to your use of technology?  
[only participants who are not working in a health facility]

A great majority of 86% from those respondents who don’t work in a health facility haven’t completed a survey from any health facility related to their use of technology yet.

The highest number of participants who have completed such a survey come from the Benelux states (“Yes”: 21%) in comparison to the other surveyed regions.

It is worth noting the gap in the answers from the Nordic states between the 53% of those who stated that the health facility which they are working for surveys their patients regarding their use of technology (see page 17), but only 19% of possible participants seemed to have completed such surveys (Nordic countries “Yes”: 19%).

The lowest number of participants who have completed a survey related to their use of technology is in the D-A-CH region (“Yes”: 10%) in comparison to the other surveyed regions.

Source: HIMSS Analytics; Study „eHealth trend barometer“; Survey period February to March 2016; without “Don’t know” and “Other region”; only not employed in a health facility; Valid cases: Total n=184, D-A-CH n=101, Nordics n=56, Benelux n=24, UK & Ireland excluded (Valid cases: n<5)
Despite all the challenges in the several European countries, the business prospects for the eHealth sector are not negative at all.

By far the best expectations were given by participants from the Benelux states (“Improve”: 94%). 47% of the participants from the D-A-CH region expect improvements for the investments in the eHealth sector, which is an increase of 5% in comparison to the last survey wave of the HIMSS Analytics “eHealth trend barometer” (survey period: May to July 2015; “Improve”: 42%).
Thank you for your participation!

HIMSS Analytics
Office Leipzig
Schwägrichenstraße 9
04107 Leipzig
Germany

www.himss.eu/analytics
www.himssanalytics.org

Join the European eHealth community panel
info@himssanalytics.eu