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D4.2 Wiki consultation

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Contact:	Manuel Marcelino Perez Perez
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Abstract

This report details the processes and activities carried out for widespread results among policy makers

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List of Participants

No.	Participant organisation name	Participant short name	Country
1	Atos Research and Innovation	ATOS	ES
2	Innova S.p.A.	INN	IT
3	In-JeT ApS	IN-JET	DK
4	Global Security Intelligence	GSI	UK
5	Vrije Universiteit Brussels	VUB	BE
6	Capital Region of Denmark, Center for Sundhedsinnovation	CSI	DK

Table of contents

EXECUTIVE SUMMARY.....4

1 TARGET AUDIENCES5

2 INTRODUCTION.....5

3 FEATURES6

4 CONCLUSION.....9

5 ANNEX I.....10

Executive Summary

This report described the tools used and implemented by the consortium for facilitating the stakeholder consultation process. The results of the consultation process were included in D4.3, Consolidated roadmap for mobile healthcare, and presented at the MovingLife Stakeholder Conference that took place in Brussels on 18th April 2013. D6.2 contains also a detailed description of the consultation process is a

1 Target audiences

This report is targeted at everyone interested in learning how to use ICT tools for helping and facilitating the process of gathering opinions.

2 Introduction

There are a number of technological tools specially designed for supporting collaborative environments. Wiki pages are popular for gathering comments, opinions and widespread news. Web-based tool allows different users to read, edit and publish their comments.

The consortium implemented an on-line consultation tool in order to better involved interested stakeholder. The consultation process was widely announced in European and international eHealth and healthcare networks and media and (hopefully) with the support and active participation of the European Commission.

The online consultation consisted of questions grouped into three thematic sections addressing core areas of the roadmap for the implementation of mHealth. Questions were discerned on reflection by the nature of the topic mHealth. The questionnaire was deeply discussed in order to get feedback for all the relevant aspect of the project In total there were 28 questions in the consultation across these three thematic areas. Completing the consultation took respondents on average 30-60mins. This figure varied with the amount of detail respondents were willing to give in answering open questions in the consultation.

A complete list of question together with the answer was stored in twiki.in-jet.dk/twiki/bin/view/MovingLife of the project, the complete set of question and the summary of the results are described in the Annex I of this document

3 Features

The consultation was conducted online utilising the site 'SurveyMonkey' that was linked from the MovingLife Consultation webpage. The site provides an extensive online tool-set for creating, hosting and analysing the results of different forms of surveys. A six month subscription was purchased from the site to run the duration of the consultation with some extra time allowed for analysing the results of the consultation. The Twiki list described earlier formed the basis for identifying potential respondents to the consultation.

The consultation document, including the scenarios and the draft roadmaps, were published on the consultation web site. The main page was designed as a guide, providing first all the needed information about the project, thus, relevant documentation as the State of play document, the Scenario Storyline and the Consultation document, could be easily downloaded, encouraging stakeholder to read the Consultation Document before completing the survey

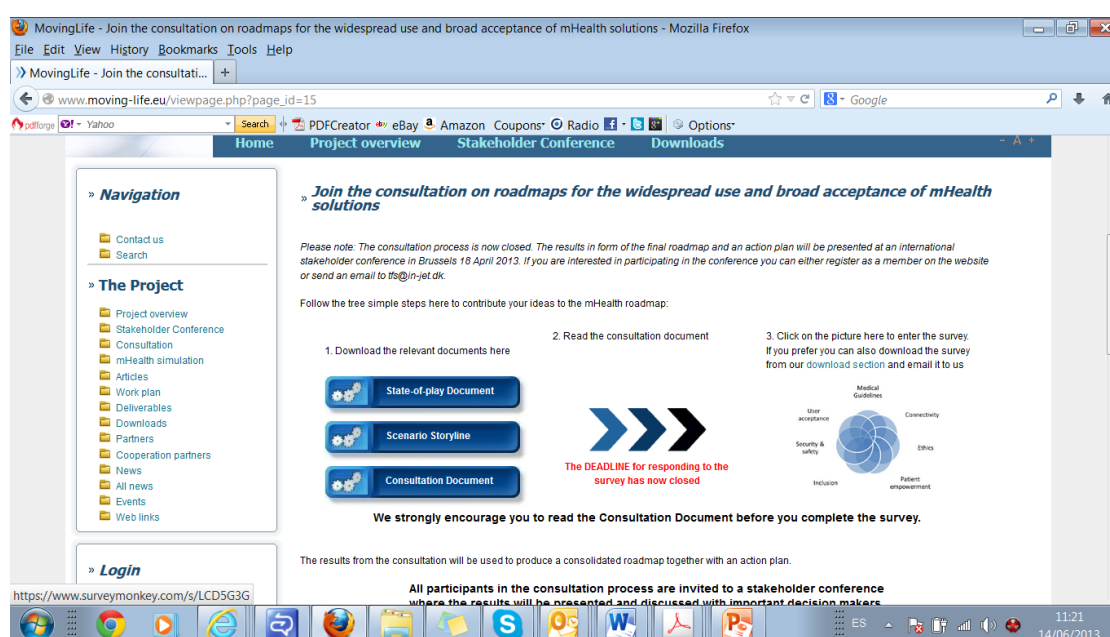


Figure 1: Aspect of the consultation webpage from where relevant document could be easily downloaded and link to the questionnaire are provided

In order to encourage stakeholder a brief description of the objectives of the project are also provided. Figure 2 provide a view of the text in what stakeholder are informed about the importance of their involvement and how the result will be used for producing the mHealth roadmap.

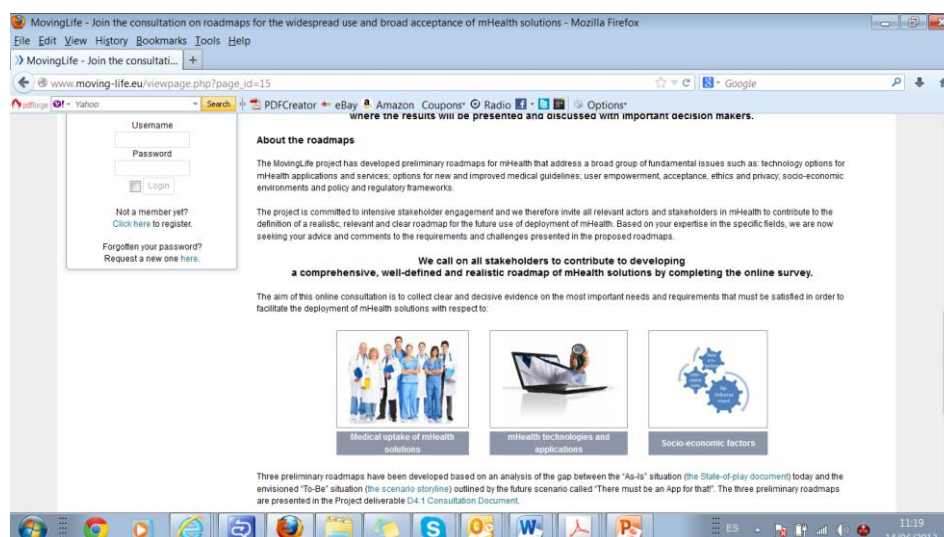


Figure 2 Description of the objectives of the project were also provided

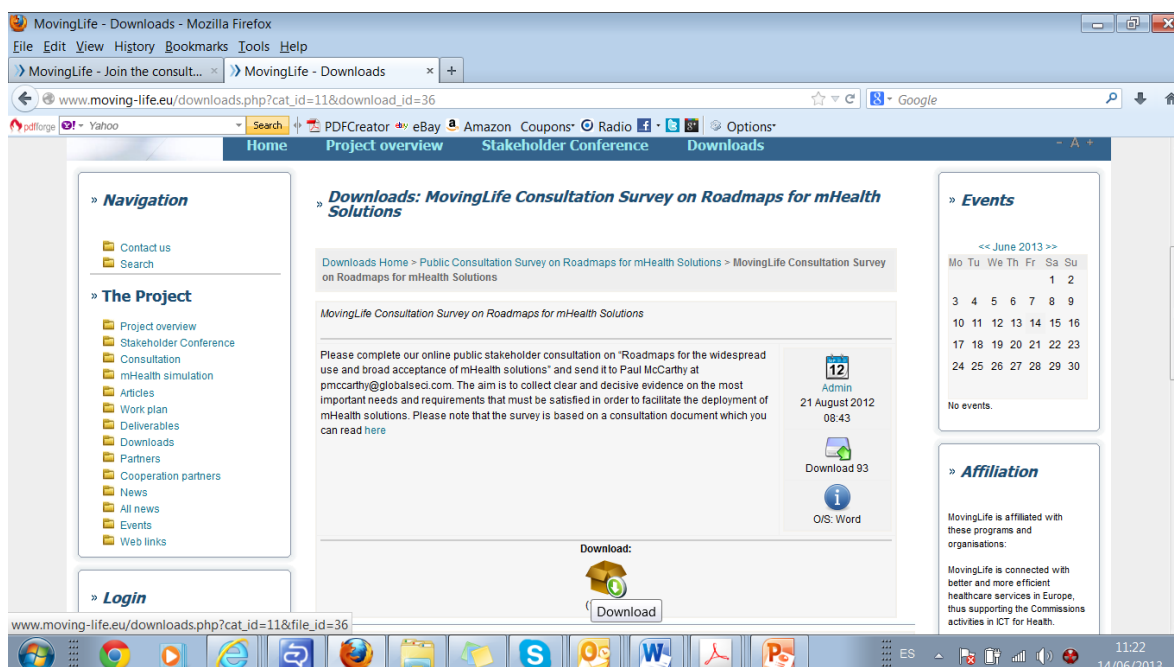


Figure 3: Webpage from where stakeholder could download relevant documentation.

The last step is the own consultation questionnaire. The main page of the survey indicates the percentage of completion. The objective of the tools is facilitating an environment for stakeholder contribution in order to gain insight from regulatory, legal, technological, medical and socio-economic mHealth implementations as well as the future contours of these issues.

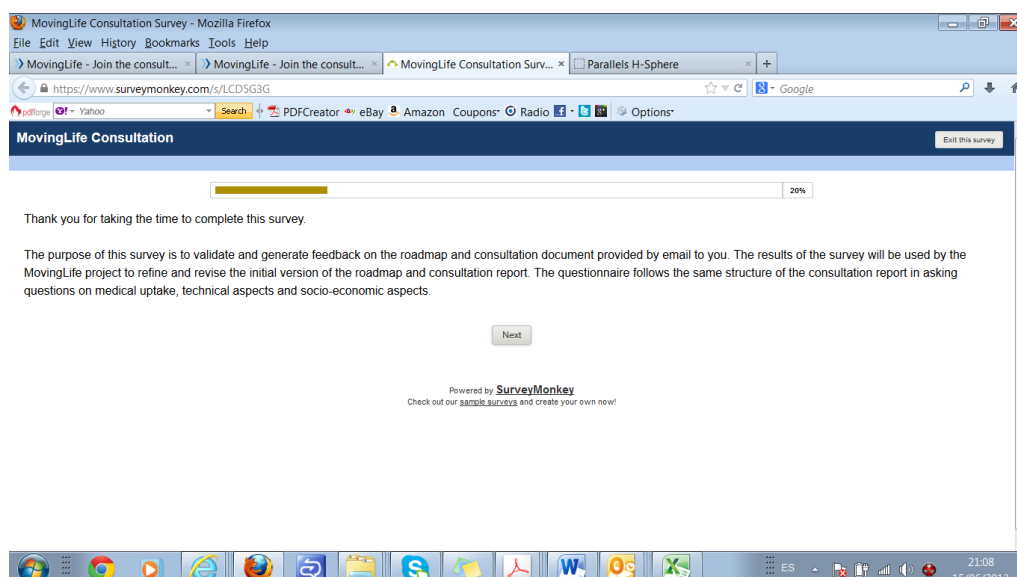


Figure 4 Welcome page of the Movinglife consultation survey

By clicking “next” the questionnaire starts. Different tools are provided for facilitating stakeholder answers, such as check boxes, dropdown options and so on.

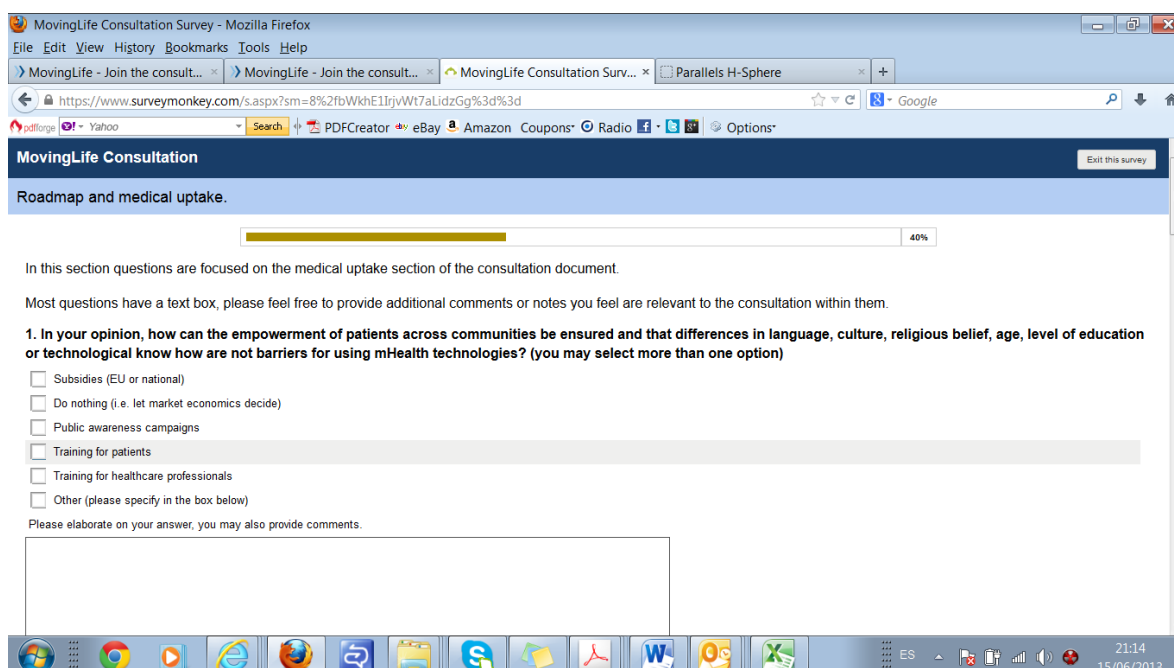


Figure 5 Firsts questions of the survey. A progression bar indicates the percentage of survey completed

Questions are a mix of closed and open questions. The majority of closed questions had also a text box where respondents can comment further. The majority of closed questions were also ranking questions where stakeholders were asked to rank or indicate key issues discussed in the consultation document and scenario. The questionnaire is still active at <https://www.surveymonkey.com/s/LCD5G3G>.

The whole consultation procedure is described in deliverable D6.1 Stakeholder engagement

4 Conclusion

In total 45 participants from 15 different countries with academic, health care professional, or industrial background were involved in the survey. As a number of stakeholder responded using an offline version, a master result file was produced incorporating online as well as offline responses. The analysis of the responses is given in D4.3 'Consolidated Roadmap for Mobile Health-care'.

The key limitation of the consultation as an engagement exercise with stakeholder was the relatively low number of stakeholder that responded to the consultation. This was due to two reasons. Firstly the timing of the consultation exercise, due to the constraints of time and the DOW, meant that the initial email was sent during the summer holiday period which, due to difference between different European countries, basically covers the months June to September. .

Online consultation exercises have their own inherent limitations in respondents committing time to replying to the consultation, which in this case was compounded by stakeholder needing to read and digest material in the form of a consultation document.

5 Annex I

MovingLife Consultation Survey

1. In your opinion, how can the empowerment of patients across communities be ensured and that differences in language, culture, religious belief, age, level of education or technological know how are not barriers for using mHealth technologies? (you may select more than one option)

Answer Options	Response Count
Subsidies (EU or national)	14
Do nothing (i.e. let market economics decide)	2
Public awareness campaigns	22
Training for patients	30
Training for healthcare professionals	41
Other (please specify in the box below)	14
Please elaborate on your answer, you may also provide comments.	15
answered question	43
skipped question	3

Careful design of applications, to make them as idely accessible as possible.

The availability of targeted campaigns provided through clinical channels (in hospitals, healthcare centers, etc.) might democratize the access to mHealth.

Universal images, drawings, signs that would be used on screen could be design and could be taught by web based videos in own languages that individuals/patients that benefit from the system might watch. Start simple; focusing on drug loyalty, diet & exercise (skip medical equipment usage at start), create awareness about his/her chronic disease and wellness which is a good point to start.

At the moment there is a transition in the population from people without IT background, digital immigrants to digital natives. For each group a different strategy would be necessary

ad Subsidies) Large scale clinical trials are still missing which demonstrate the benefits of mHealth. These studies are a requirement for wide adoption and justification of payment for mHealth by social insurance. This is where funding money should be invested first, funding for technology and business case development has less priority!!

It is necessary to take the necessities expressed by the patients when dealing with a chronic disease as the cornerstone of any technological innovation and even more to try to enhance the solutions already created by the patients to solve these necessities and not to replace them simple because they might be much more profitable.

I do not understand the question. Wrong translation?

One key barrier to uptake is how the system is explained to the patient during recruitment. This brings us to the importance of having all health care professionals on board, and convinced of the concept. Another barrier is fear of the system replacing the carer. This can be addressed through raising awareness through public campaigns.

Alle these apply to generating a good product. But remember, empowerment of patients come from meeting primarily the citizen's need, secondary the patient's. And empowerment is about support and cooperation with the informed and controlling citizen, not the other way around. Question: Why should these factors be barriers? Aren't they just facts of life, and part of the hideously interesting problem of leveraging health to citizens? My Answer: mHealth is not one solution. It is many, answering the variety of its users.

By use of social, digital technologies

I believe that the biggest trigger for using mhealth applications is that patients were not informed about their existence or they simply do not exist and most importantly that healthcare professionals are not motivated to offer them, promote or use them.

Collaboration with mobile operators to reach shared objectives

We have evidence that there exist inequality in health, due to social and physical/inherited factors. We do not all have the same prerequisite for using mhealth technology. Therefore government or other bodies must take action in ensuring equality in health when introducing new mhealth technologies.

mHealth is an innovation. People need to know about it and feel compelled to use. Training, public awareness campaigns and business models that relate subsidies to results can and should be used, as dissemination tools.

About barriers, we see mHealth apps more as a solution to differences. Apps are packed knowledge, who can broaden the reach of health related initiatives and make it possible to distribute health (medicine) technology in spite of language, education and technological know-how

We put ourselves as example.
We deployed a feature phone based app automating insulin dose calculation in 2007.
Our users were public health patients in Brazil, who could hardly handle the math associated to dose calculation.
Results: patients with better glycaemic control and following the treatment easily.
Doctors reported that patients understood better the treatment.

Across different communities, apps act as barrier reduction.
mHealth is intrinsically related to personalized medicine: apps are expected to respond to patient unique needs.
So, localization (meaning adapting apps to local communities, interface translation and process adjustments) is an easier generalization of this previous requirement.

Besides, in a mHealth cloud based solution, localization is an intrinsic part of the

business.

As in any software internationally deployed in this model.

For example, the complex localization requirements of an ERP solution, consolidating and reporting taxes and production in an international manufactor.

For low groups of level of education, language limitations and other social limitations, it would be an advantage to establish interest groups of users and supporters that can provide help to the patients in their premises, as a supplement to the aid that healthcare professionals provide

2. In your opinion, should it be possible for patients to opt out of a prescribed mHealth treatment because of non-willingness to use mHealth solutions/apps?

Answer Options	No opinion	Disagree	Agree	Response Count
	6	3	34	43
Please provide comments on your answer				13
answered question				43
skipped question				3

If they don't want to use it, they won't anyway, so best to let them rather than try to force them otherwise. The best way to persuade is to make the alternative treatment less convenient for the patients.

Yes, an mHealth treatment should not be mandatory, as the willingness to fulfil it is a must for the treatment to be successful.

drug loyalty among chronic patients is %27 according to studies and %60-70 healthcare costs belong to those. Logically chronic diseases became a concern of payors. At the end payors will force patients to use these systems to reduce the risk. Include payors in the system ! Of course training and awareness campaigns are essential

In the first stage I think it should be possible to opt out (in particular for those people who do not trust IT or who are not able to manage it) - it should not become compulsory for the whole population. In the long run, if it turns out to be reliable everyone should use it.

of course. Patient always has the right to opt out, after a well-informed decision.

No-willingness may have to do with that the patient is too sick to continue on a mHealth plan.

At this point, patients should have the option of opting out as some patients might be 'technophobes', and it might make them apprehensive and thus they will not engage with it appropriately.

Yes. Treatment is an offer, and maybe it doesn't fit the citizen's need. But it is not certain that the health care system has an alternative... The other way around, if patients can't opt out, we would be in risk of killing them...

The same way a patient can chose not to take medication. I do believe that if the prescribed mhealth treatment proved to be the most valid, no alternative old-fashioned treatments should be offered. Of course an in between phase is necessary for all those people 65+ who are not computer litterate and will not learn anymore. For the ones who are below that age, courses should be offered to learn how to use it.

I think that's the wrong way of looking at the challenge. Solutions should be built that patients want to opt into...

This shouldn't be different to any other, traditional treatment option!

It is always possible for patients to opt out of a prescribed treatment, no matter what technology is involved. We are free to accept treatment or the opposite.

As principle, I think that any patient has the right to refuse a treatment.

In your opinion, how can it be ensured that healthcare professionals have the right skills and understand their role when using mHealth technologies to treat patients across borders? (you may select more than one answer)

Answer Options	Response Count
Strong legal framework (EU or national)	22
Public awareness campaigns	15
Training for patients	10
Training for healthcare professionals (post education)	44
Changes in curriculum at universities and other teaching institutions	32
Other (please specify in the box below)	6
Please elaborate on your answer, you may also provide comments.	11
answered question	44
skipped question	2

Healthcare professionals primarily need the right incentives - particularly financial - to get them to change the way they work. They are justifiably conservative in the way they treat patients so need strong incentives to change. They also need help in understanding how mHealth changes every aspect of the way care is delivered - it is not just a case of adding mHealth to an existing optimised set of interventions and watching things improve!

Healthcare professionals can be reluctant to change their ways of working and may feel overloaded with the extra workload that might suppose using new technologies, thus training is the only way to make them familiar with the new technologies. At the same time, technology concepts should be integrated in the regular teaching programmes of medicine degrees and masters.

Medical Informatics courses should be included at all medical disciplines to brain-wash doctors, nurses, etc. regarding the benefits, values and **RoI** of ICT used in healthcare. Post education courses will only be effective then. legal infrastructure and reimbursement models should also be stated.

Official certifications, like others in the field of ITC

It is even more important to design technologies that fit with the current practices of the healthcare professionals involved. These technologies must be seen as a way to improve the quality of their work.

If this framework is embedded in all health care undergraduate curricula and introduced when healthcare professionals are still in their training phase, it will ensure better uptake and less resistance.

This is a non-problem if the health care service truly services the citizen. It is not necessary to cross borders with other than prescription if you have mhealth solutions - you will get your own doctor no matter where you are!

I think most important in training during university studies and not only one small course but throughout the whole career including ehealth awareness training and usage to cause a mindshift with professionals. Continued training afterwards is of course also necessary. The legal framework is also important as it should help or strengthen cross border mhealth instead of blocking it in many ways.

There is a big difference if the patient is not from the same nation as the health care professional. If they are from different nationalities (national locations and healthcare systems) then I would suggest more emphasis on the legal framework.

The mHealth solution **MUST** be a real support to the healthcare professional rather than a burden of complicated procedures, non-functioning systems, etc. This is a necessary step to motivate the healthcare professionals to dedicate that necessary interest to master the mHealth system.

Education is key to any change or innovation.

If we expect to deploy mHealth universally, it has to be included in the daily practice.

Certification, training, and academic change should be complemented to include seminars, congresses and other means of post-education training

In your opinion, how can consensus and agreement be reached on medical guidelines that meet the existing standards and match the cultural contexts of countries across the EU? (you may select more than one option)

Answer Options

Engagement and decisions at national level

Through European level actions

Local actions, by doctors, health-care professionals and hospitals/clinics

No need for new medical guidelines for mHealth (existing guidelines sufficient)

Allow the market and consumers to find acceptable standards and guidelines

Other (please specify in the box below)

Please elaborate on your answer, you may also provide comments.

answered question
 skipped question

There remain unfortunately a number of issues to resolve before clinicians are able to use mHealth without the risk of challenge

Local implementation is a must.

Look at continua alliance; some EU initiative similar might be useful.Focus on rising health tourism wave.

Stepwise approach for the cultural context: things are changing (i.e. digital natives). Continuous adaption - taking into account the change of the population

Local initiatives to promote guideline adoption in clinical practice are more important than European Level Action.

The "market", of course, is a controlled one. And here´s a difficult one - who writes the rules if things go wrong in an international context?

mHealth can have a positive effect o building consensus.

Apps provide a new way to distribute knowledge, and collaboration mechanisms are part of the mHealth tecnological ecosystem.

Provided that solutions are flexible enough to address individual and community´s specific requirements, consolidated data will easily made avaialable.

Mechanisms to gather votes/ likes, wiki, e-foruns, are part of this as well.

And this collaborative environment can speed up consensus based on results

In your experience, are several points of access to the right healthcare professionals crucial in establishing user acceptance (and trust) of mHealth solutions?

Answer Options	No opinion	Disagree	Agree
	8	14	22

Please provide comments on your answer

answered question
 skipped question

No sure i understand the question, however anyone providing the clinical end of an mHealth intervention needs to meet the patient occasionally, be prepared to speak to them on the phone very regularly, and to monitor their state of health at least daily.

Those professionals that are fond of technology and aware of its possibilities may be cornerstones to reach the patients.

mHealth will not be focused by doctors and classical healthcare institutes. Mobile phone operators, mobile health companies, call centers will be the players. Actually it will be a different business model that consumer base marketing will be priority. Look at nike example...

There should be several entry points which end up in the appropriate services in a structured way. Nurses have to play an important role and are key to successful implementation.

I am not sure I understand the question. In the answer to question 6 I took one as the best.

You should be able to use the tools you prefer - it's a part of the system design. You should establish alternatives, in order for the health care system to compete with itself and remove inefficient and unpopular treatment methods and scenarios. An mHealth solution must be an alternative, as it cannot be a general single-point-of-contact.

I think the question is ambiguous

For proximity to patients and professionals of health

No for apps.

mHealth apps shFor proximity to patients and professionals of health
should be complementary, productivity tools taht can ease the burden on existing health
systems.

Acceptance should be ruled by market, and trust built on results, information/training and
regulation.

For those applications that require specific local intervention, mHealth solutions would be an additional procedure or source, not a significant extra
burden over existing services.

Answer Options	1	2	3	4	5	6	Response Count
Healthcare Technology Assessment (HTA)	6	9	6	7	11	5	44
Clinical trials	14	4	6	4	8	8	44
Other evidence based methods	6	6	4	5	3	20	44
Measurements of patient satisfaction	6	7	11	7	11	2	44
Measurements of patient empowerment	2	14	6	16	4	6	44
Adoption within health-care practice	12	2	10	6	8	6	44
answered question							44
skipped question							2

In your opinion, are there any missing technological challenges in the roadmap which should be examined?

Answer Options	Response Count
Yes	8
No	24
If yes please specify	6
answered question	32
skipped question	14

I read it in hurry as the consultation is about to close (and I was only invited two days ago!) and it seemed to cover just about every possible issue. However as someone who is currently running a major mHealth tender in the UK just now, I felt it didn't necessarily recognise the issues I am immediately facing. The biggest seems to be getting suppliers to stop insisting on selling hardware and software bundled together, and be prepared to sell the software only.

Interoperability; both SW & HW

European registry of mHealth devices "installed" in people

You took into account current mhealth challenges but I think there are also future technological challenges to take into account caused by changing demand of patients and demographic changes such as dementia, CPOD, diabetes etc.

not enough time to elaborate.

generic (national or regional) administration system, - allowing access to authentication, log on, central personal data register, National Service Platform (NSP) - central storage of data obtained with access from EPJ, EOJ, practitioners, researchers, patient com. systems (i.e. sundhed.dk)

Which of the reported research challenges are most important to maximise the impact of mHealth (i.e. prioritize the research challenges)?

Answer Options	Response Count
Connectivity-interference	2
Interoperability-standards	17
Apps as medical devices	7
Security and safety	9

Please give details on your answer	7
answered question	35
skipped question	11

There is a huge confusion at present as to what is required to regard apps as medical devices. I suspect much of this is deliberate confusion to slow progress by those with an interest in doing this. In the Royal society of Medicine in the UK we are addressing this issue at a one-day conference in April 2013

Apps should demonstrate their potential to positively impact on the patient's treatment. Simultaneously, they should be designed putting the patient in the centre of the process, giving him a full control over the application and guaranteeing his privacy.

with 3G & 4G connectivity is not the major problem. Currently at Africa and India, WHO and partners are conducting very successful mHealth projects. There is more than 17,000 apps in healthcare creating confusion among consumers. Institutes should rise their business models and focus on a few apps. At the moment saving the life is more important issue than security & safety. There is a lot of simple mHealth solutions that security & safety is not required. The most important issue is; there is not enough standart (even a generic EHR) and SW and HWs (smart phones, medical equipments, etc) does not work with each other.

I think all challanges are important. In Austria there is an ongoing discussion about the security and safety of the system - once this is solved then the user trusts the system and this is nothing the user bothers when using the system. In the second stage (once the system is acknowledged as being safe and secure) lack of connectivity or interoperability could be annoying for the user which could prevent the impact of m-health.

Think you should be thinking about privacy too

Security and safety are key to establish a broad acceptance of such technologies!

Connectivity interference affects only part of the solution spectrum, and is object of research by the telecom industry for numerous other reasons (such as interference between **WiFi**, RFID and bluetooth enable devices in retail).

Apps as medical devices affects only those solutions that have a direct effect on treatment or diagnosis.

Security and safety is core to all medical related services and products, and do not need additional prioritization.

Interoperability is key to adoption for all solutions

In which of the reported research topics do you see the need for cross sector synergies to quickly achieve target objectives specified in the roadmap? (you can select more than one option)

Answer Options	Response Count
Technology research	24
Policy making	21
Business sector	20
Other (please specify in the box below)	4
Please elaborate on your answer, you may also provide comments.	7
answered question	45
skipped question	1

Dare I mention the health sector? It is important too to recognise the need to engage both physical and mental health sectors

Synergies among industry, policymakers and cross-disciplinary research are needed.

If you don't put the reimbursement system and

involve payors; we will be talking about the same things in 2023.

Organizational issues and an emerging (new) division of labor between patients and healthcare professionals.

Other: professional organisations. To have inter sector synergy between different professionals, public and private and among policy makers - research - professionals and companies

not enough time to elaborate.

The bigger risk set on mHealth development is directly tied to the uncertainty of the environment.

Regulatory rules established with the participation of the business sector can unleash investment, and more and better products.

In your opinion, how should the reported research developments be measured? (please rank each option)

Answer Options	1	2	3	4	Response Count
Benefits to EU health-care systems	6	24	8	6	44
Benefits to patients	34	4	4	2	44
Creating EU technological and industrial leadership	2	6	20	16	44
Creating sustainable economic growth and new employment	2	10	12	20	44
answered question					44
skipped question					2

Are their other measurements not listed above which should be covered?

Answer Options Response Count
5

answered question	6
skipped question	40

Probably covered in the above but perhaps just worth stressing that in addition to financial benefits, there is also the issue of feasibility - with advances like mHealth delivering good healthcare in the EU will become progressively infeasible.

Benefits to national health-care systems

Patients should be Citizens. Sickness is a health issue. Benefit is to us, the people not to "patients"

yes

Measurements of mhealth uptake (as developed in the state of play report): fx
 How fast the uptake process is moving, how distributed (patientgroups, geography, income groups etc.)

Yes,

The impact in social (early retirements), labour (lost days), and productivity should also be measured

Do you see any differences between Member States (e.g. North vs South countries) in the broadband coverage take up (e.g. some technologies are ready or more suitable for specific countries)?

Answer Options	Not sure/don't know	No differences	Minor differences	Major differences	Response Count
----------------	---------------------------	----------------	-------------------	----------------------	----------------

	24	2	10	6	42
Please give comments on your answer					3
answered question					42
skipped question					4

Huge differences between the likes of rural UK and even rural Italy - primarily in terms of availability. The best availability & take up seems to be in NW EU and progressively deteriorates as you go South and East.

The current penetration of smartphones makes possible to have the technology seamlessly available in geographic terms. Nevertheless, there are obvious differences among technology adopters, and some segments of population could be excluded from the use of mHealth due to their problems to access mobile technologies. Structural barriers in the healthcare sector may also hinder development and adoption.

not enough time to elaborate.

Broadband deployment is not a barrier to mHealth.

With the exception image-based applications, the other interchange data, and do not need much connection speed.

We automated insulin dose calculation, with online prescription by physicians, over GSM. This is at most a development requirement to apps.

Besides, we believe that medical apps should be able to run without a connection whenever the application allows it.

In your opinion, are there any strong user acceptability/usability issues related to future implantable integrated devices?

Answer Options	Response Count
Yes	16
No	4
Not sure	20

If yes please specify and provide comments on your answer	11
answered question	40
skipped question	6

Not as long as they last for at least a year without needing any attention and will work reliably over htat time. Any shorter time will be a problem.

Safety

All should be extreme user-friendly.

A conflict between good care and individual and free choice as driving values might come up.

There is also technological issues.

Without proper public awareness and education, patients will be reluctant to engage. One barrier is some patients may feel it will threaten their identity and independence.

I strongly believe in user-driven healthcare. All treatments are offers. There is always a usability issue to any piece of treatment, advice or equipment, and especially implantable ones.

not enough time to elaborate.

Clear and transparent guidelines are needed. People need to lose fear of being manipulable or surveillanced by others.

I would think that all implantable devices would have to be very user oriented in order to ensure acceptance from patients

Implantable integrated devices always carry strong rejection rates due to privacy and safety.

Besides, implantable devices always pose a greater risk and are significantly costlier to develop, produce and sell than apps or external monitoring devices

In your opinion can regulatory frameworks solely be a sufficient solution to interference issues ? (if no you may select more than one option)

Answer Options	Response Count
yes	5
no, software solutions should be also adopted e.g. dynamically allocate spectrum	7
no, new frequency bands and wider spectral bandwidth per frequency channel are necessary	4
no, new dedicated connectivity protocols/standards should be developed	8
no, new class of communication (hardware) modules should be embedded in medical devices	9
Please provide comments on your answer	4
answered question	18
skipped question	28

Sorry I've never encountered the word 'interference' before? I presume you mean wireless interference?

No experience in this field

Only "no"

not enough time to elaborate.

Are there any relevant energy-saving technologies, not identified in the roadmap, which in your opinion are suitable for mHealth devices?

Answer Options	Response Count
answered question	9
skipped question	37

This seems an area that can be safely left to the business sector as it's in their interest too.

I don't know

No opinion

No experience in this field

xxx

not enough time to elaborate.

I am not sure, but in 3-5 years time we will surely see new energy saving technology that are not identified yet.

It's fundamental the duration of the battery

No.

But I'd suggest a closer relationship to mobile handsets, where energy saving technologies are key to lighter and long lasting devices.

Besides technology advancements to e.g. allowing for semantic interoperability, who in your opinion should take the lead for stimulating and/or harmonizing standardization efforts?

Answer Options

EU

Industrial standards associations

National healthcare systems

National governments

Trade bodies

Other (please specify in the box below)

Please elaborate on your answer, you may also provide comments.

answered question

skipped question

A difficult one as all should be involved but if it is the EU, it means we will move at the pace of the slowest which is unacceptable. You haven't mentioned Continua yet - to me that is extremely important in coordinating standards across the world.

Industrial standards associations should be confronted with clear targets under monitoring of EU and national healthcare systems. If targets are not reached, regulatory requirements should be implied by EU according to a clearly communicated roadmap.

The democratic way. I believe in multiple solutions as long as there is development. There is a long history of standardizations in the IT field over > 30 yrs. I think all will be involved, with each their interests and capabilities. Many standards have mostly academic interest, but still drive communication and progress. Som standards can be used to lift development of HC systems to new levels 13606, IHE, HL7,.... But it is still (and should be) possible to launch a new unstandard health service, if it demonstrates promising services. Standards can depict the world, but they can't innovate.

not enough time to elaborate.

It best to do it from the most broad perspective.

It is a difficult question since the different bodies have different power in the different EU countries. In Denmark the national government will have stronger power than fx in other countries with a health care system based on private insurance.

All the ticked above are necessary and should be regulatory coordinated / harmonized

I think that this most be set at the most hgher level, to assure the biggest efect.

But I´d fist conduct experiments intra-nation and between nations, to identify the real life issues of the process.

In your opinion who has responsibility for ensuring the app complies with the Medical Device Directive?

Answer Options	Response Count
App developer/designer	24
App store	10
Other (please specify in the box below)	11
Please elaborate on your answer, you may also provide comments.	10
answered question	45
skipped question	1

The app store is hte one making hte sale so, as with other sales of gooods issues, it is hey who are responsible.

With the MDD it is the responsibility of seller/provider to ensure that the system complies with the MDD.

The app store is just the distributor! The MDD and the EN ISO 62304 are about software development process which has to be followed by the developer, nobody else can do that.

European official app store

Independent Entity.

The provider of the App

Both, and all who have used it in their business. The medical device directivew, on the other hand, should be agile and fit to purpose, not to protectionism.

A new institution who is responsible for inspection

not enough time to elaborate.

I feel that both options are unsuitable since both pursue financial interests. There must be regulatory bodies involved, more or less similar to the (mostly national) rules or laws regarding the development of medical devices.

Apps that do not interfere with treatment or diagnosis should not need to be MDD complaint.

The MDD process for those apps that have medical use should be revised to certify apps and not the device they run on.

Do you think the proposed centralised approach (cloud computing) for storing patient health record is more suitable/secure than decentralised solutions where the patient keeps her health records (e.g in its mobile or in other personal digital stores)?

Answer Options	Very unsuitable/insecure	Somewhat unsuitable/insecure	No difference	Somewhat suitable/secure	Very suitable
	6	10	8	12	6
Please provide comments on your answer					
answered question					
skipped question					

Yes, if the patients keeps it, they will lose it.

If the patient keeps his/her health records then it is in the responsibility of the patient to whom the information is provided (at least that will be the perception of the patient).

this is a question of proper design, not of basis technology. The decentralised solution has built-in safety but is also not secure (enough)

We don't have a choice, much of what needs to be done can't be done with a decentralised solution

It increases security and patient satisfaction to enable storing patient health record simultaneously with cloud computing.

mHealth is based on mobility, connections between patient and system occur anywhere, anytime.

Local data storage add complexity to operations, and put interoperability, availability and security measures under local administration. This is directly translated into costs and vulnerability.

Cloud solutions are key to wide international deployment

In your opinion can the current data protection legislation and the proposed changes (new regulation) be regarded as sufficient safeguards for future developments in mHealth?

Answer Options

Very insufficient	Somewhat insufficient	No opinion
4	8	14

Please provide comments on your answer
answered question
skipped question

Just need really big fines for those that don't comply.

We make the legislation as we go.... We need to remove som, change some and add some!

not enough time to elaborate.

You always need to develop it further, but it provides a good starting point!

They are probably sufficient but MUST be flexible.

I do not know the UE directives, but for us, one of the basic goals of mHealth is to empower patients to manage their diseases,

Other words to enable access to medical technology.

In Brazil, and I pretty much assume this is also the case in India, medical knowledge and service offer is not evenly geographically distributed.

In 2001, a survey shown that São Paulo and Rio de Janeiro states concentrated 46% of Brazilian doctors.

mHealth, as well as e-health, provide access to services. Patients at countryside Brazil can be follow'd up by doctors thousands of miles away, as it happens with our application.

I do believe that in this scenario, privacy is secondary to health and wellness

Which current (or future) issues in privacy and data protection do you consider to be the biggest challenges in the context of the deployment of mHealth?

Answer Options

Response Count

The speed of the developments in mHealth technologies

4

The application of new rights in the context of mHealth

0

The uncertainties with regard to the implications of new rights in data protection for mHealth

2

The lack of flexibility of data protection legislation in order to adapt to rapid changes and new developments

10

The general use of privacy by design	10
Balancing data protection and privacy rights with technological innovation	12
Other (please specify in the box below)	2
Please elaborate on your answer, you may also provide comments.	4
answered question	40
skipped question	6

"The lack of flexibility..." is essentially the same as "The speed of the developments..."

Coordination with initiatives like <http://www.robolaw.eu/>

Don't know

not enough time to elaborate.

The changes mHealth is expected to bring to the field of healthcare in the next decade might also include a number of new actors in healthcare. What do you expect from them?

Answer Options

answered question

skipped question

Not sure I completely new professions but the GP who in my youth (in 1950s) would regularly visit us at home, who now stays in his surgery receiving patient visits and patients down appropriate care pathways. The highly-qualified nurse with a prescribing qualification will become much more important.

I don't see a relevant change in the current value chain for healthcare provision, apart from potentially specialize technology developers. Basically, healthcare providers will remain the core.

- New professions will be focused on income & profits - They will be less healthcare focused - Rules & Regulations that should be followed should be well stated

New services can not be introduced without abandoning old ones. This will trigger opposition and resistance. The new professions should be integrated into existing structures.

Computer science professionals should be as an architect firm a new building project

What about opportunity? 😊 We need to generate tons of new jobs, accelerate health and treat with higher quality...!

XXX

not enough time to elaborate.

Hard to be guessed.

I believe the private healthcare market will expand thus leading to a more blurry boundary between lifestyle products and services and professional healthcare services will rise due to mhealth uptake.

Skills

I do not agree with the rise of new professions.

What I foresee is doctors, nurses and other HCP having access to new tools,

and having to be trained on them to do a better job

At the moment the power of the EU in terms of healthcare is relatively limited. Cross-border reimbursement is an important issue. Would you favour an increase in the power of the EU in healthcare in order to further harmonize reimbursement schemes?

Answer Options

Strongly disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree
2	4	10	18

Please provide comments on your answer

answered question

skipped question

Good idea; I just cannot see how the EU could achieve that.

We have so many problems with cross-sectoral reimbursement in Austria that cross-border reimbursement is an issue with much less priority. If the EU would have any possibility to influence the loss of resources and barriers imposed by the different sectors in the national health system would be much more helpful, and this has to be done anyway before talking about "cross-border" care.

We can easily make health in our own countries. European cross-border opportunities are extra possibilities, not necessities. But certainly a "like"

"relatively limited"? Relative to what? not enough time to elaborate.

This is a big challenge because we finance our healthcare systems differently. But I agree there should be harmonizing (and mobility) to provide better and more flexible healthcare for the EU citizens. Again a high priority should be to take care of equality in health (and thus healthcare delivery for all).
How important would you consider a pay for performance system as described in the scenario?

Answer Options

Please provide comments on your answer
answered question
skipped question

The goal for doctors is to make their best to heal their patients. Any kind of reward method should be based on this fact. The use of mHealth should be fostered by demonstrating that the use of mHealth can find "pay per performance" adequate.

Issues can't be "very unimportant" - it doesn't make sense!

I think the scenario is ill considered Making judgements based on it would therefore be meaningless not enough time to elaborate.

I strongly support outcome reimbursement schemes (opposed to output)

It can be “a sword with double blade” as it may incentivize health providers for use (when they get remunerated for using the system) but may hinder patient use (if the system is too complex or expensive).

Pay for performance rise reactions to medical ethics and equalitarian access to health.

And we are at a point that we still need to prove that paying for performance has the desired effect on health results.

Since one of the consequences of adopting mHealth/eHealth solutions is the availability of data, I would gather the data and prove effect before establishing PFP schemes.

Do you agree on the potential of mHealth for inclusion as described in the roadmap?

Answer Options

Please provide details on your answer
 answered question
 skipped question

MHealth is not only coming - its coming fast. But technology comes faster than practice. It is the re-design of health services that decides both speed, potential and inclusion.

I think the roadmap is ill considered Making judgements based on it would therefore be meaningless not enough time to elaborate.

We saw this inclusion happen.

75% of Brazilians are attended by the public health services only.

In the public sector, diabetic patients are treated mostly by non-specialist.

Patients usually lack the skills to manage their insulin doses calculations themselves.

With our tools, many of these patients had access to better treatment and doctors felt safer to treat diabetic patients

Where do you see the main advantages of mHealth in facilitating the creation of interoperable healthcare systems? (you can select more than one answer)

Answer Options	Response Count
Reducing health-care costs	28
Increasing patient clinical outcomes (more effective treatment)	34
Increasing the effectiveness of health care professionals	34
Increasing patient empowerment	24
Improving health-care systems	28
Other (please specify in the box below)	4

Please elaborate on your answer, you may also provide comments.

answered question

skipped question

3
42
4

By gathering more information anonymously researchers will be able to improve their ability to predict future health events such as exacerbations, heart attacks etc..

Being able to provide the same quality of care with less (personal) resources in the future, when personal resources in healthcare will be more limited.

Increasing patient participation and responsibility

How would you judge the role of mHealth in the creation of interoperable healthcare systems?

Answer Options

Very unimportant	Somewhat unimportant	Neutral	Somewhat important
0	0	6	18

Please provide comments on your answer

answered question

skipped question

Not sure I understand this one. A very implicit question. And is an interoperable healthcare system a good healthcare system? What I do want though, is a people-centered service-oriented healthcare system capable of servicing the people and their families as efficient as possible. And mobile technologies are important enablers and an inherent part of this process

mHealth puts interoperability on the stage, since it creates the need and also provide the means to address it.

In our case, this could mean the app getting awake by a glucose test or sending doses to insulin pumps.

This would free the patient of the extra burden of retyping information as it is today.

What is your background?

Answer Options	Response Count
Academic/Research	26
Health-care professional	8
Health-care research	6
Industry/Provider	4
Industry/Research	0
Patient	0
Patient support groups	0
Policy	0
Other	1
answered question	45
skipped question	1