Health apps – quality evaluation from the patients’ perspectives

E-Mental health: Evidence-based and safe?
Rennes, France
11 December 2018

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Director
myhealthapps.net/PatientView
Recent snapshot...

Global

2017 2016

325,000 health & medical apps 259,000 health & medical apps
85,000 publishers 55,000 publishers
3.6bn downloads 3bn downloads
78,000 new health apps added to major app stores

$18bn spent on wearable monitors/sensors/trackers

Sources: Research2Guidance; Our Mobile Health, BBC
Taking stock: evolution of mHealth and apps

To 2016: 250,000 health apps available – but primarily still a consumer/patient-driven phenomenon. Apps being chosen, tried and used by patients and the health-conscious public to manage their general health and wellbeing, and chronic conditions – still largely independent of their healthcare professionals (HCPs) and healthcare systems.

2016 - A gradual gaining of acceptance of valid and relevant health apps by HCPs and health systems – and wider access to mHealth for patients.

If mHealth is to deliver what it promises to patients and the public – and to resource-strapped healthcare systems

App data need to:

- Be able to integrate securely with EHRs and clinical/care pathways
- Be accepted as valid by clinicians and insurers, so apps can be recommended, prescribed and reimbursed
- Be accepted as evidence of end users’ real needs and preferences
- Be used as the basis for patients and HCPs to co-create their treatment and care
That’s the market picture .... But what are the most important factors for patients?

Issues that still need to be fully addressed before digital health tools and apps become mainstream in healthcare...

• **Quality, accuracy, reliability and relevance**
  – who should certify this?

• **Trust and transparency**
  - who’s behind the app? Who funded it?

• **Data protection/privacy**
  – (mis)informed consent. Who has access to the data?

• **Data security**
  – what happens if data are breached?

• **Liability and redress**
  – who’s accountable when things go wrong?

• **Guidelines**
  – for developers/HCPs/patients - quality and regulatory compliance

• **Sustainability**
  – who should pay to maintain and upgrade health apps and make them available long-term to patients?
About PatientView

• UK-based research, consulting and publishing company

• **Collects and analyses the viewpoints of thousands of patient groups (and their members) worldwide** – since 2000

• Has the capacity to reach out to **70,000+ patient organisations worldwide**, covering over 1,000 health specialties

• Launched [myhealthapps.net](http://myhealthapps.net) in November 2013 to help patients, carers, and health-conscious consumers find apps that have been tried and trusted by people like them
Surveys, research, reports, white papers, directories, toolkits...
myhealthapps.net partners and research collaborators (past and present)
Where we are today...

- 500+ apps (90 available in French; 40 in the mental health category)
- Covering 150+ health specialties
- Apps in 50 languages
- Reviews by over 700 patient organisations worldwide
- Transparency: info on and links to app developer, who funded the app, whether it was developed with a medical adviser, if it has regulatory approval (if necessary)
- Neutral platform: only apps recommended by patient, carer or health consumer groups included. Myhealthapps.net/PatientView takes no money from app developers or app downloads
myhealthapps.net ... out of 450 apps
*(does not add up to 100% - some overlap between categories)*

- Health, Wellness and Care in the Community: 64%
- Disability: 24%
- Medical: 17%
**Why was the M3 created?**
The primary care clinician is usually the first healthcare provider a person sees to discuss a mood problem. By better organizing your information the M3 should enable you and your advisor to better serve your healthcare needs. The numbers of undiagnosed and misdiagnosed mental health patients continues to increase at an alarming rate. The customized assessment report you receive after completing the M3 Screen efficiently organizes your responses over a range of mood disorders. WhatsMyM3 enables patients and clinicians to monitor trends over time.

**Who created M3?**
The M3 was created by primary collaborators Robert M. Post, MD Head of the Bipolar Collaborative Network; Bernard M. Snyder, MD Assistant Clinical Professor of Psychiatry at Georgetown University and a cognitive behavioral therapist; Michael L. Byer, President of M3 Information; and Gerald Hurowitz, MD Assistant Clinical Professor of Psychiatry at Columbia University and a clinical psychopharmacologist.

“Hub of Hope believes that no matter what you’re going through, you shouldn’t have to do it alone. Find services local to you using geolocation technology. ...Using the Hub of Hope is completely free and confidential. You are not required to provide any personal information or pay for use. It is simply there to say, if you should ever need help, whether for you or somebody you are looking after, we’ll make it easier to find.”

Since launching in July 2017, the Hub of Hope has had:
• 1200+ support groups and charities registered
• 21k+ unique users have accessed the Hub of Hope
• 87k+ unique page views

Languages  English
Countries of use  UK
Cost  Free
Developer  Mashbo, with UK mental health charity Chasing the Stigma (Based in United Kingdom)  
http://www.chasingthestigma.co.uk
Funder  As developer, including support from the Albert Gubay Charitable Foundation
Medical Adviser  Mashbo, with UK mental health charity Chasing the Stigma.
Reviewer  Grassroots Suicide Prevention, a Brighton-based suicide prevention charity
Review  “Hub of Hope: Local resources throughout the UK”
A UK website that uses your location or postcode to search for local services around you. An easily searchable database of local support groups and organisations within the UK.” Included in the local charity’s national resource list.
In the UK, a local branch of a national health charity, Mind, has produced a guide to more than 20 mental health apps for:

- mental well-being
- depression and anxiety
- physical well-being
- eating disorders
- younger people.

It gives guidance on how each app can help, and includes links to download the app. It’s part of an online suite of local support, including a directory of help available in the towns served by the group.

https://www.mindcharity.co.uk/advice-information/how-to-look-after-your-mental-health/apps-for-wellbeing-and-mental-health/

http://www.myhealthappsblog.com/patient-group-news/patient-groups-site-app-recommendations/
What do patients and carers want from health apps?
A June–Oct 2014 global survey conducted by PatientView, myhealthapps.net, and Health 2.0

- 1,130 respondents
  - with either a long-lasting illness, or caring for someone who has one
- From 31 countries
  - 82.3% from Europe
  - 10% with diabetes
  - 9.6% with cancer
  - 7.6% with arthritis
  - 6.6% with a mental health problem
  - 6.4% with a rare disease
  - 4.9% with a hormonal disorder
  - 4.8% with pain
  - 4.4% with a heart condition
  - 4.2% with multiple sclerosis
  - Plus: 39 other conditions

Download white paper with full research findings from www.myhealthapps.net/resources
Irrespective of what health apps you are currently using, what do you want most from health apps?

- Help me understand my medical conditions/choices of treatments (61%)
- Provide practical support (such as care planning) (55%)
- Track my symptoms/lifestyle/feelings to see if I am improving or not (46%)
- Provide a way of communicating more regularly with doctor/nurse (45%)
- Provide support for my treatment/care, but at the right time (45%)
- Raise public awareness about diseases/conditions important to me (38%)
- Allow me to comment/feedback on the healthcare services I receive (35%)
- Stop me feeling isolated, by helping me reach out to other people (31%)
- Provide emotional support (30%)
- Be less expensive for me than other forms of healthcare support (26%)
Which of the following would convince you to use health apps regularly?

<table>
<thead>
<tr>
<th>Feature</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide trustworthy, accurate information</td>
<td>69%</td>
</tr>
<tr>
<td>Be easy to use/simple/well-designed</td>
<td>66%</td>
</tr>
<tr>
<td>Provide guarantees that my personal data is secure</td>
<td>62%</td>
</tr>
<tr>
<td>Be free</td>
<td>56%</td>
</tr>
<tr>
<td>Contain no advertisements</td>
<td>51%</td>
</tr>
<tr>
<td>Work effectively and consistently over time</td>
<td>44%</td>
</tr>
<tr>
<td>Not be expensive to buy, and provide value for money</td>
<td>28%</td>
</tr>
<tr>
<td>Allow me to network with other people important to me</td>
<td>26%</td>
</tr>
<tr>
<td>Be packed with detail (I don’t mind complex apps)</td>
<td>23%</td>
</tr>
</tbody>
</table>

Patients/carers also need guidance on which apps to trust.
Do any of the following prevent you from downloading some health apps, or using them regularly?

- 37%: The sheer number of health apps makes choosing them confusing
- 32%: I am not sure health apps will help me
- 31%: I prefer face-to-face consultations with doctor/nurse
- 30%: I know of no health apps relevant to me
- 27%: I am suspicious of health apps, because I don’t know who makes them
- 27%: Health apps are not used by my doctor/nurse
- 17%: Can be too expensive
- 8%: Health apps are not trustworthy/reliable
- 3%: Not available in my language/cater for my cultural background

Not just about the monetary cost of the health apps ... patients want support on which ones are most relevant to them.
Results of survey: general needs
(Respondents were asked quantitative multiple choice questions)

63% want **practical support** (such as care planning)
56% want **support at the right time**, such as by issuing me with reminders and other information
48% want to **understand more** about medical conditions and choices of treatments
47% want **emotional support**
45% want a way of **communicating more regularly** with the doctor or nurse
39% want to be able to **track my symptoms/lifestyle/feelings** etc, and know if I am improving or not
36% want to **stop feeling isolated**, and want the app to help reach out to other people
36% want help to **raise public awareness about diseases/conditions** important to me
34% want to comment (**give feedback**) on the healthcare services I receive
19% want the **app to be less expensive for me than other forms of healthcare support**
What do respondents involved with mental health want from apps?

Results of survey: what the apps need to incorporate

What would make respondents involved with mental health conditions use apps regularly?

Apps that ...
- provide trustworthy, accurate information (73%)
- are easy to use (67%)
- are free (59%)
- provide guarantees that my personal data are secure (unless I choose to pass on my data, for instance, to my doctor) (56%)
- contain no advertisements (55%)
- work effectively and consistently over time (53%)
- are not expensive (33%)
- allow me to network with other people important to me (33%)
- are packed with detail (I don’t mind complex apps) (19%)
Analysing patient groups in 17 therapeutic areas

Published August 2018
**Methodology:**

8 indicators measuring the capability of patient groups

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Business stability</td>
<td>Looks at the stability of patient groups by considering different aspects of their core business activities</td>
</tr>
<tr>
<td>2. Communication (social media)</td>
<td>Looks at the patient groups’ ability to communicate with their constituency (people with a disability/patients/carers)</td>
</tr>
<tr>
<td>3. Services to patients</td>
<td>Measures how effectively patient groups support their constituency (people with a disability/patients/carers)</td>
</tr>
<tr>
<td>4. Networking with healthcare stakeholders</td>
<td>Measures how effectively patient groups connect with other influential healthcare stakeholders</td>
</tr>
<tr>
<td>5. Networking with peers</td>
<td>Measures how effectively patient groups connect with other patient groups within (and outside) their specialty</td>
</tr>
<tr>
<td>6. Reputation</td>
<td>Measures how influential patient groups feel they are with key healthcare stakeholders</td>
</tr>
<tr>
<td>7. Impact on health policy</td>
<td>Measures whether patient groups feel government prioritises their therapy area/geographic region (and whether the group has an impact on official health policy)</td>
</tr>
<tr>
<td>8. Resilience</td>
<td>Measures patient groups’ resilience, and whether they feel they can cope with common challenges</td>
</tr>
</tbody>
</table>
Benchmarking the patient groups: the potency of patient groups
by therapeutic area

<table>
<thead>
<tr>
<th>Therapeutic Area</th>
<th>2018</th>
<th>2014</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood disorders</td>
<td>1st</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>2nd</td>
<td>1st</td>
<td>1st</td>
</tr>
<tr>
<td>Cancer</td>
<td>3rd</td>
<td>4th</td>
<td>9th</td>
</tr>
<tr>
<td>Rare diseases</td>
<td>4th</td>
<td>=6th</td>
<td>7th</td>
</tr>
<tr>
<td>Renal</td>
<td>5th</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Respiratory</td>
<td>5th</td>
<td>3rd</td>
<td>2nd</td>
</tr>
<tr>
<td>Diabetes</td>
<td>=7th</td>
<td>=6th</td>
<td>4th</td>
</tr>
<tr>
<td>Mental health</td>
<td>=7th</td>
<td>10th</td>
<td>5th</td>
</tr>
<tr>
<td>Liver/hepatitis</td>
<td>9th</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Rheumatological</td>
<td>10th</td>
<td>9th</td>
<td>11th</td>
</tr>
<tr>
<td>Neurological</td>
<td>11th</td>
<td>11th</td>
<td>10th</td>
</tr>
<tr>
<td>Circulatory and heart</td>
<td>=12th</td>
<td>8th</td>
<td>3rd</td>
</tr>
<tr>
<td>Disability</td>
<td>=12th</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Skin</td>
<td>14th</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Carers/family/friends</td>
<td>=15th</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Endocrine</td>
<td>=15th</td>
<td>5th</td>
<td>8th</td>
</tr>
<tr>
<td>Gastrointestinal</td>
<td>17th</td>
<td>2nd</td>
<td>6th</td>
</tr>
</tbody>
</table>
Summary - highlights of trends among the patient groups (17 therapy areas)

Overall equal 7th – Mental health

2018’s 64 respondent mental-health patient groups are ranked overall 7th out of 17 therapy areas—significantly higher than their overall 10th (out of 11 therapy areas) in 2014 but on a par with their 2012 overall rank. Mental-health patient groups in 2018 exhibit both strengths and weakness across the indicators of patient-group capability:

- Mental-health patient groups remain unchanged 2012-2018 in their capabilities at business stability (4th in 2018), networking with other healthcare stakeholders (9th) networking with peer organisations (9th) and reputation (10th).
- Mental-health patient groups have improved their ability to impact upon (government) health policy (7th). Furthermore only 20% of them in 2018 think that their government does not consider mental health to be a healthcare priority (in both 2014 and 2012 the equivalent figure was around 40%). These groups also slightly improved their resilience (9th) to common challenges faced by patient organisations mostly due to better access to medicines (4th in 2018 for this sub-category); more cooperative medical professionals (9th); and more cooperative governments (8th).
- e-communication (12th). A higher percentage of mental-health patient groups in 2018 than in 2014 (49% v. 42%) say that they embrace social media. But the reason for their low ranking at this indicator of patient-group efficacy is that other types of patient groups have increased their investment and activity in social media even more.
- Providing services to patients (12th). This ranking is primarily because only 8% of 2018’s mental-health patient groups say that they fundraise for medical research; just 16% represent patients’ interests in drug development; and only 13% express patients’ views to regulatory bodies.

Final rankings for patient groups specialising in mental health:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rank out of 17</td>
<td>4th</td>
<td>12th</td>
<td>12th</td>
<td>9th</td>
<td>9th</td>
<td>10th</td>
<td>7th</td>
<td>9th</td>
</tr>
</tbody>
</table>
Trust is still a crucial issue...

Research by PatientView among **190 patient groups worldwide for Deloitte** for its 2017 report* found that:

- Only **32%** of patient groups surveyed had ‘some’ or ‘high’ trust in **health apps from pharma**
- **76%** of patient groups had ‘some’ or ‘high’ trust in apps produced by patient groups
- **83%** of patient groups said that their members would be ‘willing’ or ‘somewhat willing’ to share the personal data from their health app with their own specialist/consultant or primary-care doctor...

... while **only 30%** would be willing to share their data with a **pharma company**

Source: *Pharma and the connected patient – how digital technology is enabling patient-centricity*, Deloitte Centre for Health Solutions, 2017
[https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Life-Sciences-Health-Care/gx-ishc-pharma-and-connected-patient.pdf](https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Life-Sciences-Health-Care/gx-ishc-pharma-and-connected-patient.pdf)
Greatest trust is for apps from patient groups

The top 4 sources of apps where patient groups have ‘high trust’ are from:

- Patient groups (47%)
- Doctors/Nurses (44%)
- Universities (29%)
- Patients themselves (25%)

By contrast, only 2% of respondents rated apps from pharma as ‘high’ trust.

But...

Some patient groups are willing to co-create apps with pharma. These relationships can be successful and result in well-established, popular apps, such as MyAsthma funded by GSK with patient input from Asthma UK.

28 out of the 190 patient groups surveyed by PatientView (more than 15%) had already co-created apps with pharma.
Challenges for pharma (and most) apps

The Deloitte report highlighted how little traction pharma health apps have gained. Research commissioned from Research2Guidance identified that:

- Out of 3.2 billion health app downloads, pharma apps only accounted for 5.6 million in 2016.
- Of these, the Top 5 most popular pharma apps accounted for more than 50% of pharma app downloads.

Around 1060 apps were produced in Q1 of 2017 alone by the 12 largest pharma companies, but on the basis of the above findings it would seem that most will struggle to be noticed or used by patients.

In addition, a few patient groups identified negative issues including:
- Disappointment in content, functionality, usability and uptake
- Withdrawal of funding and support from the company when their product licence expired
- ‘Pop-up’ advertising within the app
Why do many patients drop out of eHealth self-management support?

A recently-published, small-scale, qualitative joint study in Norway investigated why patients with Type 2 Diabetes quickly left a programme of 4 e-consultations intended to support their self-management with eHealth.

Interviews with the patients identified 4 common barriers:

• Usability issues
• Confusing or irrelevant content
• Impact on patients’ time
• Lack of face-to-face support

So, the study team concluded that:

“To maintain motivation, our study points to the importance of combining eHealth with regular face-to-face consultations.”

“It seems important to facilitate more user-friendly but high security eHealth technology” – Department of Health Studies, University of Stavanger, Stavanger, Norway, Stavanger University Hospital, Stavanger, Norway, 3Centre for Evidence-based Practice, Western Norway University of Applied Sciences, Bergen, Norway

Report: https://www.researchgate.net/publication/317236591_Dropout_From_an_eHealth_Intervention_for_Adults_With_Type_2_Diabetes_A_Qualitative_Study

Review of technology and health apps for a better patient experience

Toolbox and methodology to explore users’ needs:

• Patient and stakeholder ethnographic interviews
• Diary study
• Shadowing
• Usability testing

Connectivity

“One of the main strengths of the analyzed tools is the enhanced connection they promote among different actors. They allow value co-creation and easy exchanges of different kinds of assets that otherwise wouldn’t be possible or would be difficult to manage.”
Virtual reality (VR)

Technology is not only used for monitoring: new VR applications are being applied to therapy itself.

In 1996, research scientist Hunter Hoffman and psychology professor David R. Patterson first used immersion VR for pain control. Since then, potential applications of VR have been explored for a wide range of medical conditions.

In medicine, VR is now also used as an alternative to sedative drugs (eg, allowing dosage reduction and a lower patient request for painkillers in the post-surgery phase).

Other applications use VR in combination with physiological monitoring and feedback, in the treatment of panic and anxiety disorders.

“One of the main strengths of the analyzed tools is the enhanced connection they promote among different actors. They allow value co-creation and easy exchanges of different kinds of assets that otherwise wouldn’t be possible or would be difficult to manage.”

Source: Review of health apps and technology for a better patient experience, Experientia, 2018
According to the EFA, "mobile devices can today support medical and public health practice if the right apps are in place. mHealth can significantly contribute to patients’ empowerment, enabling them to manage their health more actively and to live more independently. It can also support healthcare professionals in treating patients more efficiently as mobile apps can track adherence to treatment and encourage healthy lifestyles."

**Funded by:** EU Horizon 2020 Research and Innovation framework programme

**Aims:** to develop a **patient-friendly**, sensor-based tool to collect clinical, environmental and behavioural data relating to the patient.
Apps now being used for large-scale recruitment for medical research

**Asthma Mobile Health Study**

*Developed by:* Icahn School of Medicine at Mount Sinai, New York, USA and LifeMap Solutions, a subsidiary of biotech company BioTime

*Platform:* built using Apple’s new ResearchKit (launched March 2015)

*Participants enrolled in first six months following launch in the US in March 2015:* 8,500+; enrolment recently extended to the UK and Ireland

*Partners (since March 2016):* 23andme (1.2 million customers)
In the USA, the American Sleep Apnea Association (ASAA) used ResearchKit for their Sleephealth study app, launched in 2016, offering two linked benefits for patients:
• a personalised tool designed to help people better understand the link between their sleep habits and general well-being
• an opportunity to share sleep data on a large scale.

Results: One year from launch, it has nearly 20,000 users. Whilst at its peak 47% of these opted in to take part in the sleep study. 65% had never taken part in medical studies before.

The ASAA puts a lot of emphasis through its website and forum on the benefits of becoming what it calls `citizen researchers':
• receiving support
• sharing insights
• helping direct future research
• improving their knowledge of what our medical system does and how it works.

“This really represents a new way of doing medical research...We are in the beginning stages of learning how to do it.

One of our goals is to spread the word about the importance of taking part in research...we want interested individuals to not just participant in a single research study, but to consider joining our community as well, and be part of the research movement.”

Carl Stepnowsky, Chief Science Officer for the American Sleep Apnea Association
In July 2017, the UK Information Commissioner’s Office ruled that the patient data-sharing agreement between the Royal Free London NHS Foundation Trust and Google DeepMind was non-compliant with data protection law in a number of areas.

1: “It’s not a choice between privacy or innovation
...The price of innovation didn’t need to be the erosion of legally ensured, fundamental privacy rights.”

2: Don’t dive in too quickly
...Carry out your privacy impact assessment as soon as practicable, as part of your planning for a new innovation or trial.

3: New cloud processing technologies mean that you can, not that you always should
...consider whether the benefits are likely to be outweighed by the data protection implications for your patients.

4: Know the law and follow it
...obtain expert data protection advice as early as possible in the process.”

Recommendations from Elizabeth Denham, UK Information Commissioner
DeepMind’s response:

“In our initial rush to collaborate with nurses and doctors to create products that addressed clinical need, we didn’t do enough to make patients and the public aware of our work or invite them to challenge and shape our priorities. Since then we have worked with patient experts, devised a patient and public engagement strategy, and held our first big open event.”

Patient expert recommendations
(endorsed by Mustafa Suleyman, CoFounder of DeepMind and Head of Applied AI):

- Appoint a patient lead with the same level of influence as the clinical lead
- Resource an entirely patient-led AI project
- Appoint Patient Advisors alongside the clinical advisory team...ensuring the scope is not just defined by doctors and nurses
- Create a patient panel to hold DeepMind to account from the patient point of view
- Develop patient testing groups equivalent to clinical testing groups.”

Rosamund Snow, patient campaigner and author of Co-designing a patient and public involvement and engagement (PPIE) strategy for DeepMind Health

EU initiatives on mHealth

April 2014: Green Paper on mHealth published

July 2014: Public consultation on the green paper closes

January 2015: Submissions to the public consultation published

March 2015: First meeting of a working group to develop a code of conduct on privacy (industry-led)

December 2015: Final version of the code of conduct on privacy published and submitted to Article 29 Working Party for approval

March 2016: First meeting of a new working group (multi-stakeholder) to develop guidelines for assessing the validity and reliability of the data that health apps collect and process. Report published in April 2017

May 2016: The revised General Data Protection Regulation enters into force in the EU (Member States have until May 2018 to fully adopt)
http://ec.europa.eu/justice/data-protection/
Member organisations of the Working Group on Assessment Guidelines for Health Apps

COCIR
DIGITALEUROPE
Digital Health & Care Alliance
Eucomed
European Association of Hospital Pharmacists (EAHP)
European Cancer Patient Coalition
European Federation of Allergy and Airways Diseases Patients' Associations (EFA)
European Institute for Health Records (EuroRec)
European Social Health Insurance Platform (ESIP)
European Society of Cardiology
Hannover Medical School
Heart Team sp. z o.o.
HL7 International Foundation
King’s College London
Medappcare
MSD (Europe), Inc.
National University of Ireland Dublin
Netherlands Organisation for Applied Scientific Research TNO
PatientView Ltd
Standing Committee of European Doctors (CPME)

Plus public health authorities from: Austria, Czech Republic, France, Malta, Poland, Portugal, Spain & the UK
**Broad scope**: covering the so-called ‘grey zone’ of those apps that just fall below the lowest category (Class 1) medical devices

For example: clinical decision support tools for diagnosis/treatment recommendation; access & editing of EHRs, patient/carer decision aids & self-management tools, simple calculators of personal information (eg BMI), generic medical calculators etc.
Sustainable healthcare app

**FINANCIAL**
- Sustainable business model, for example subscription, payer contribution

**TECHNOLOGICAL**
- Works seamlessly over multiple platforms
- ‘Smooth’ updates with no loss of data or negative impact on patients

**CLINICAL**
- Accepted by HCPs and patients because medical content is accurate, and regularly reviewed and updated

**INTEGRATED**
- Accepted as part of the local healthcare support system
- HCPs, patients and carers clear how this app fits into the person’s care

**‘FOR LIFE’**
- Able to adapt and target personalised support for a patient at each stage of a journey with a long-term condition
We welcome your input and involvement!

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