

Can eHealth improve care and research in Duchenne MD?

No disclosures

Prof. dr. Douwe E. Atsma

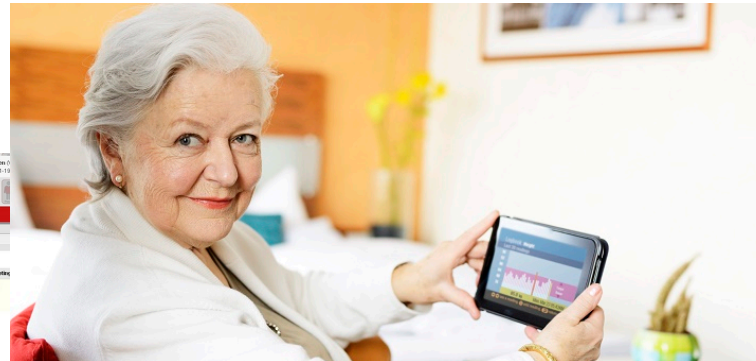
Department of Cardiology, LUMC

Co-director National eHealth Living Lab
(NeLL)



What is eHealth?

“The use of information- and communication technologies, notably internet technology, to support or improve health and healthcare”



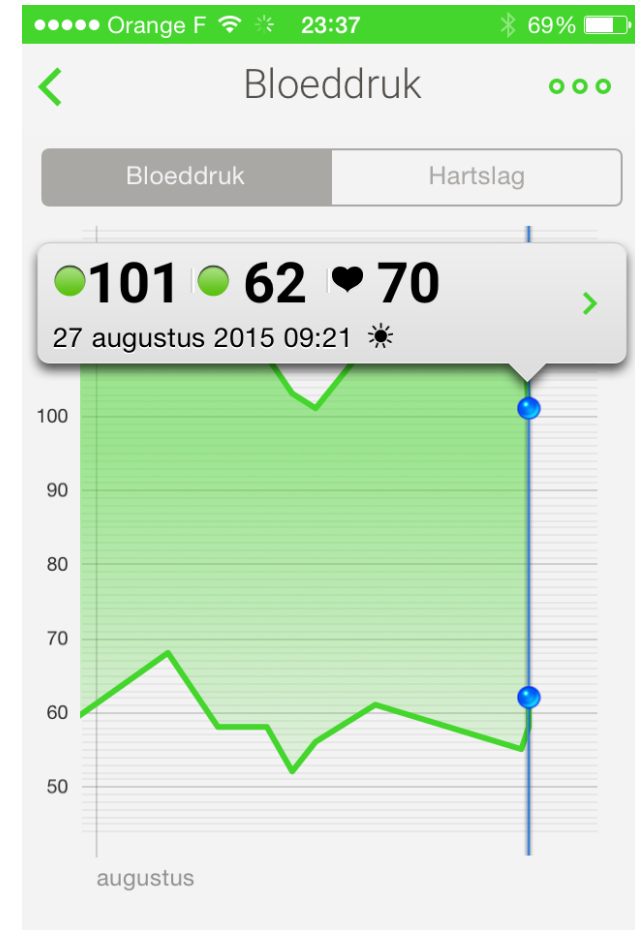
raad voor **V**olksgezondheid en
Samenleving

The Box



Blood pressure monitor

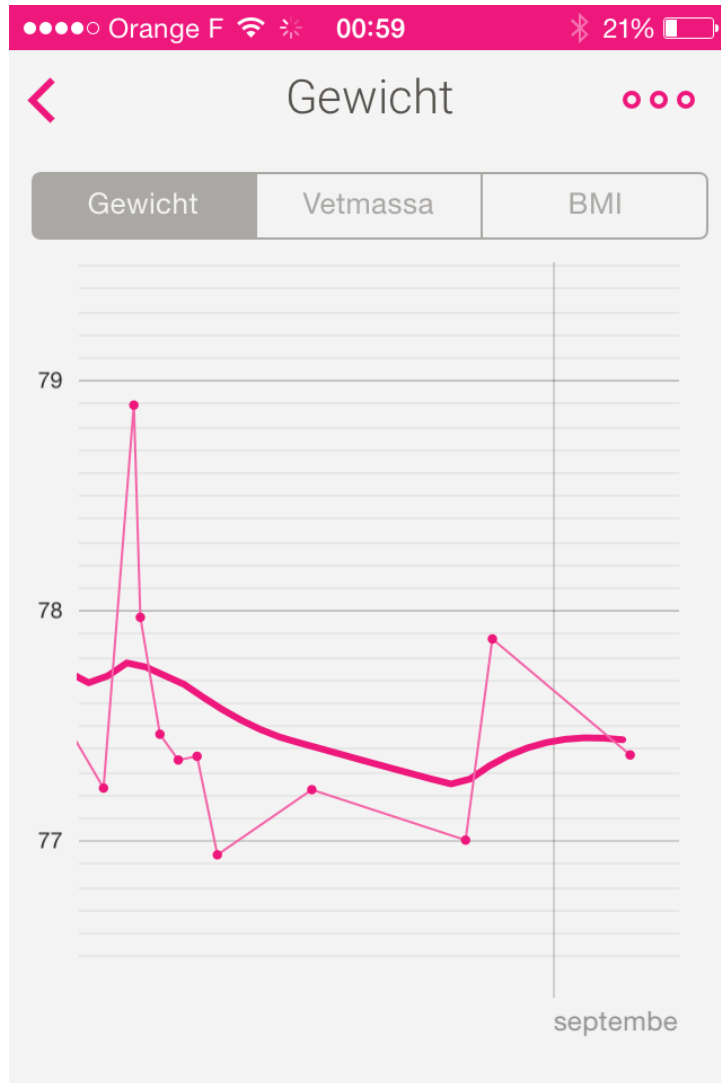
Connects via Bluetooth with your smartphone



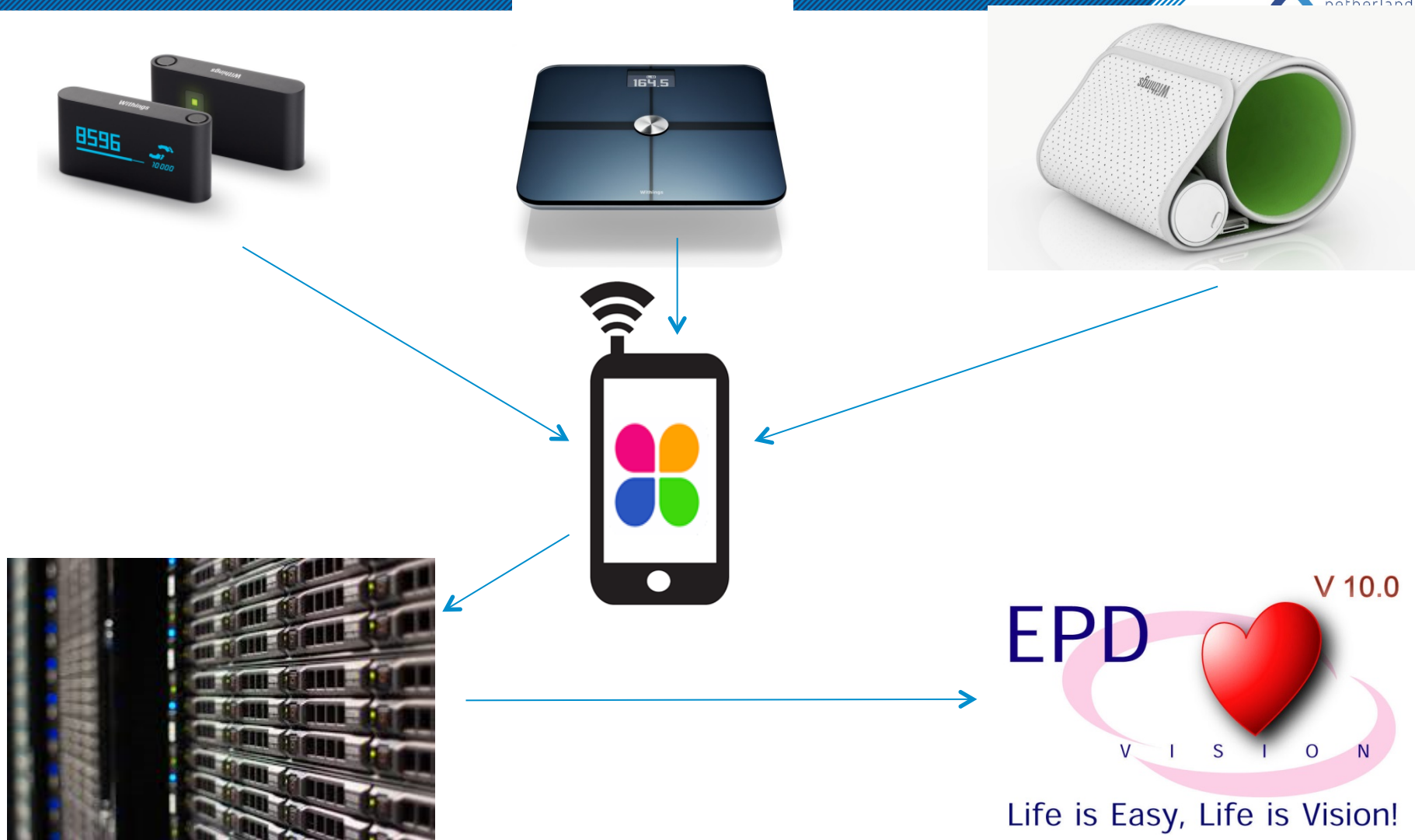
Activity and sleep tracking



Body weight

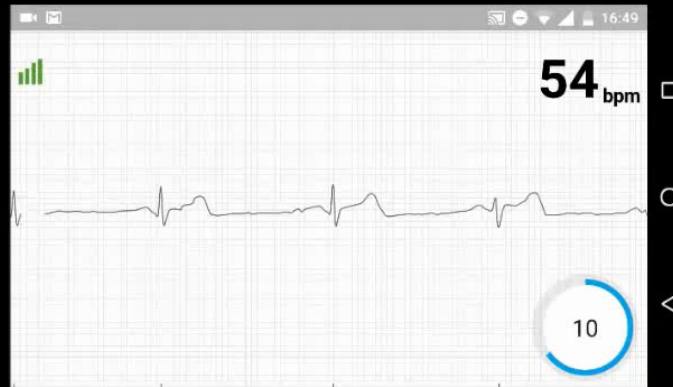


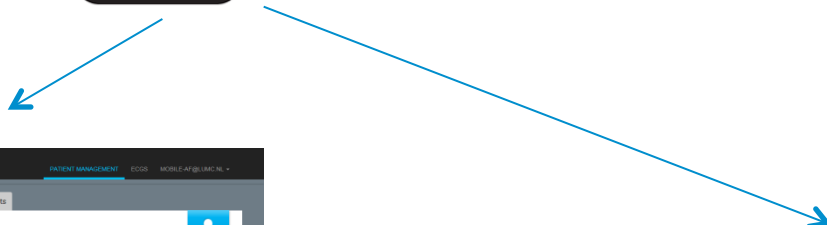
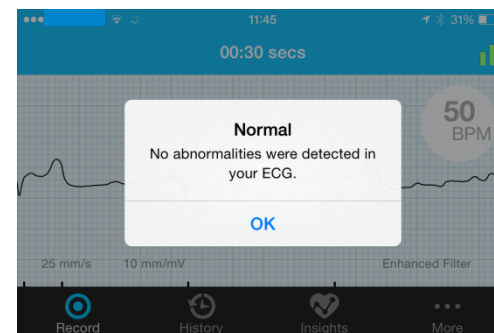
Data integration into EMR



Electrocardiography








AliveCor

PATIENT MANAGEMENT ECGS MOBILE APP @ UMC NL

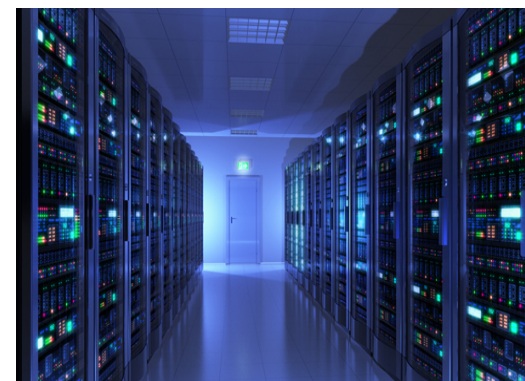
[Patients](#)
[Recent Reports](#)
[Invite A Patient](#)
[Archived Patients](#)

Patient Lookup

LAST NAME:
Enter patient's last name

LAST NAME	FIRST NAME	LAST ECG TAKEN	DATE OF BIRTH
Deakes	William	Aug 0th, 2015 12:03PM	Sep 28th, 1993

© 2015 AliveCor, Inc. All Rights Reserved. US Patent Nos. 8,301,250, 8,559,562 and Patents Pending. AliveCor is a registered trademark of AliveCor, Inc. in the United States and other countries.

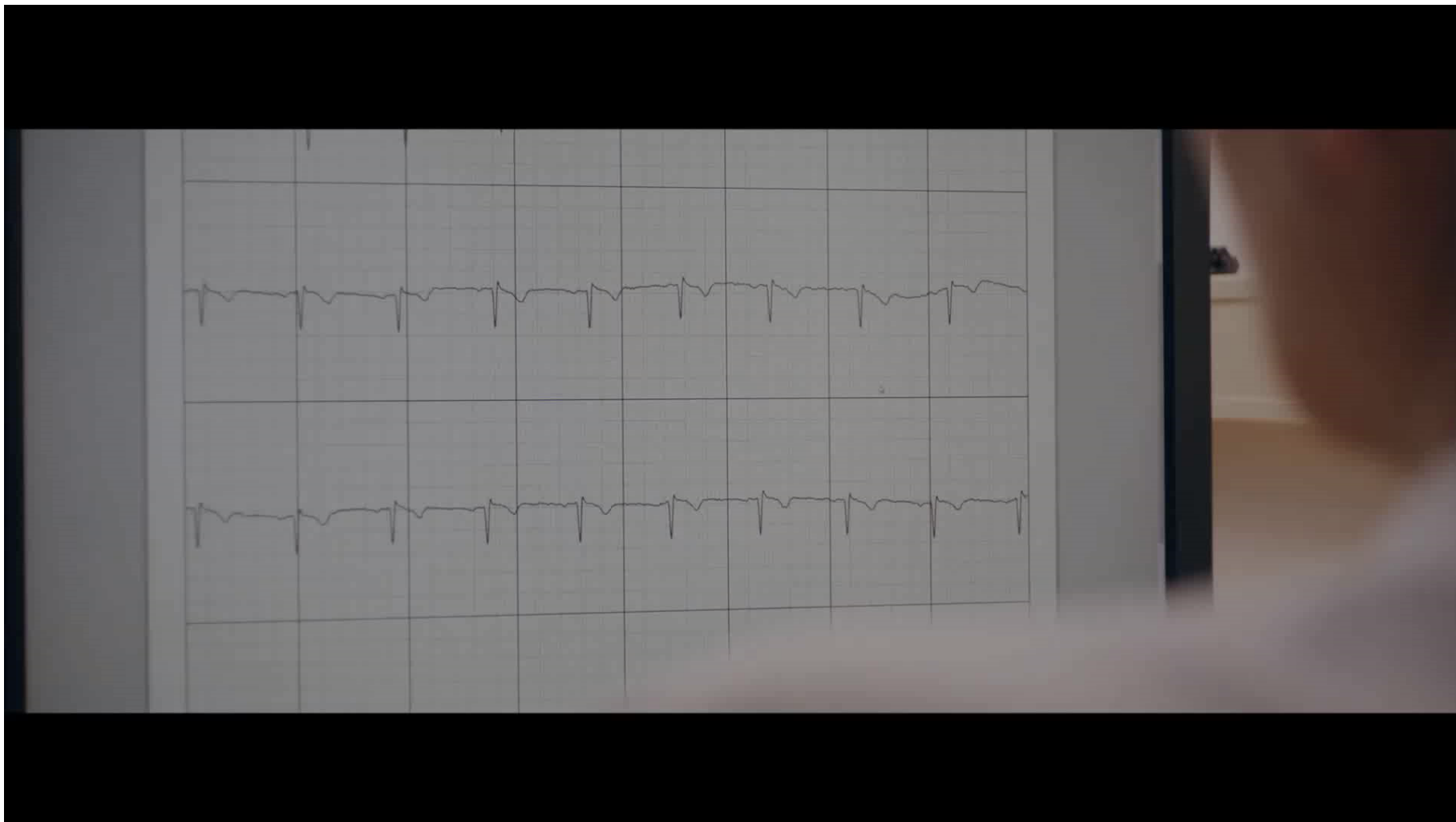


Oxygen saturation

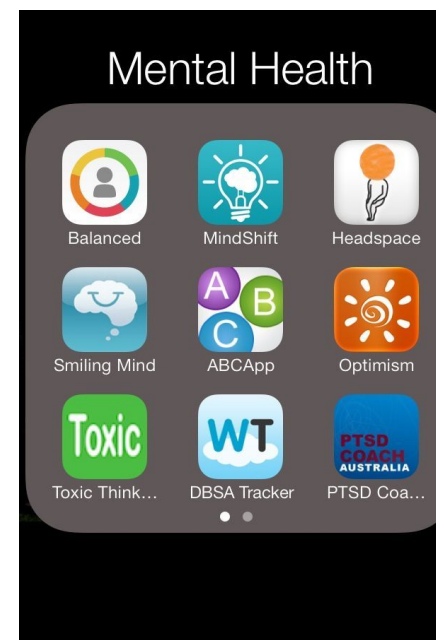
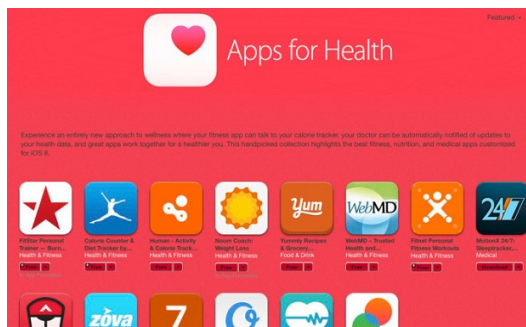


Body temperature

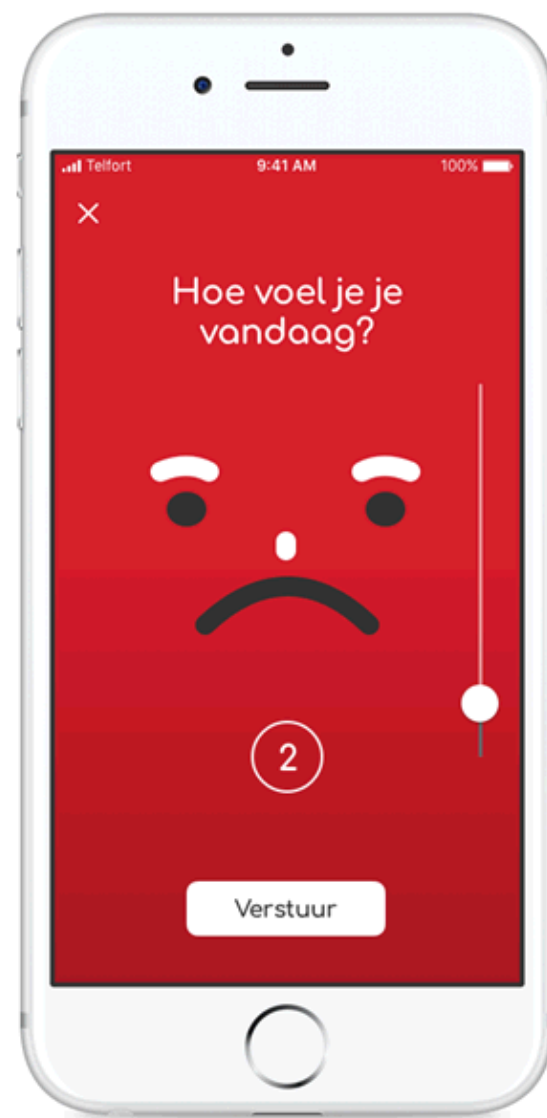




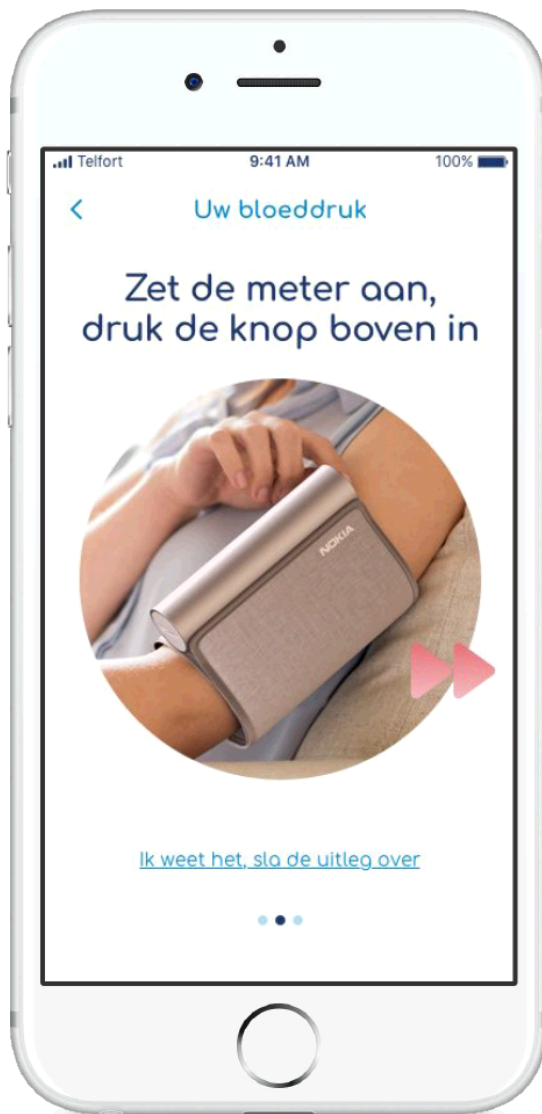
Many 'health' apps available...



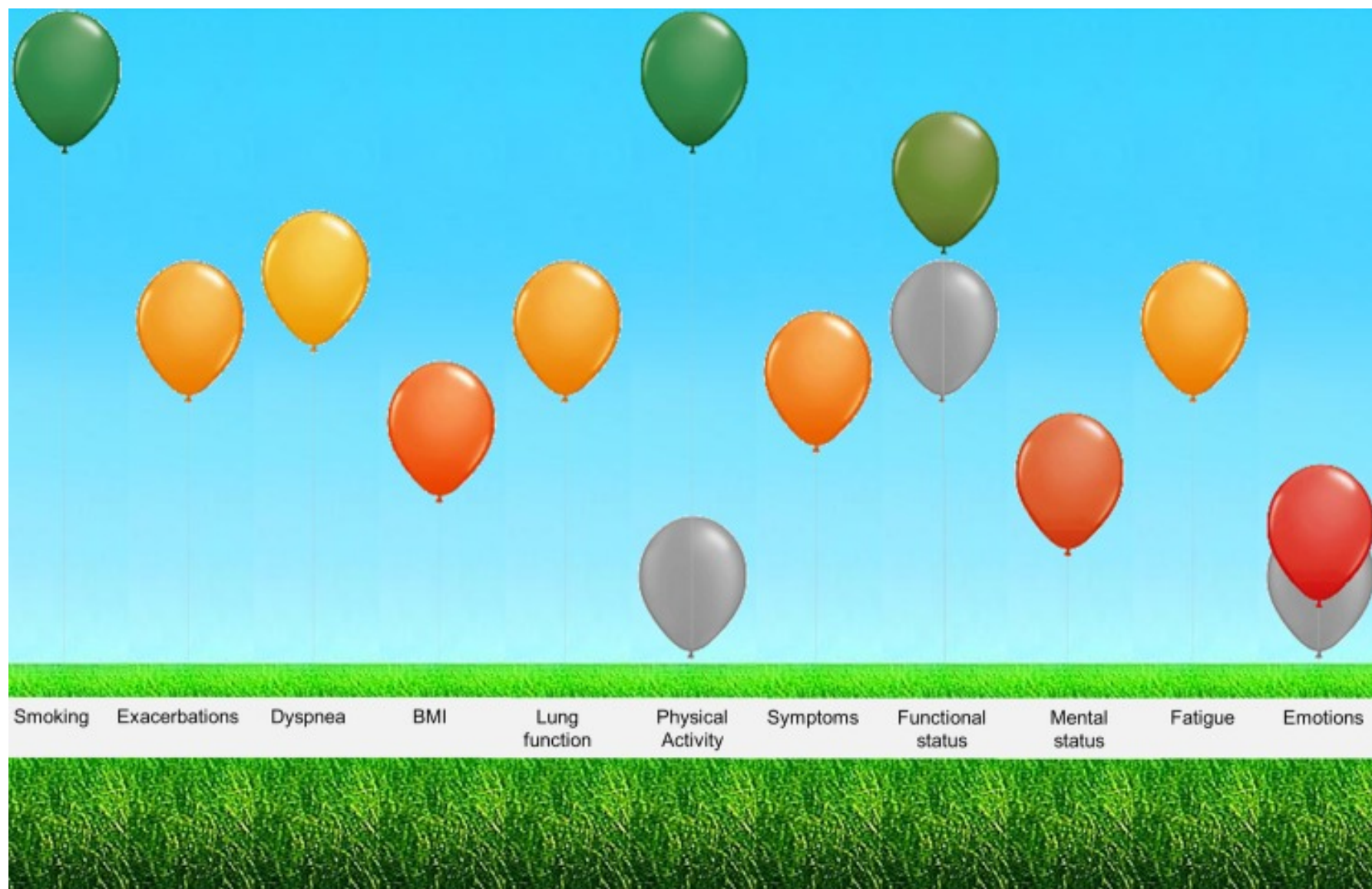
NeLL app platform



NeLL app platform



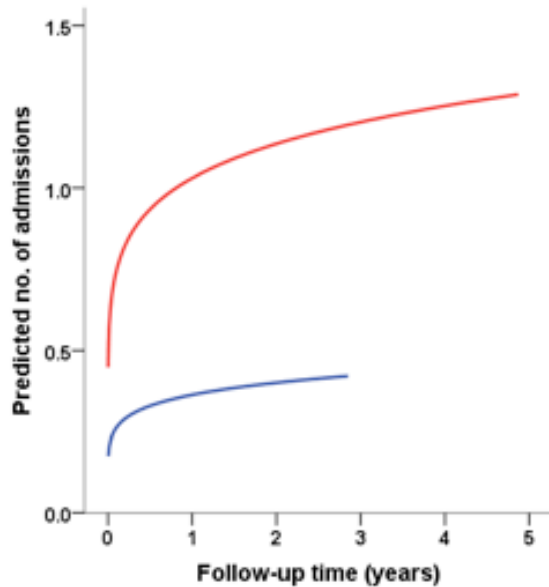
ABC Burden of Disease tool



Effect van Telemonitoring bij Hartfalen

○ Voor inBeeld
○ Na inBeeld

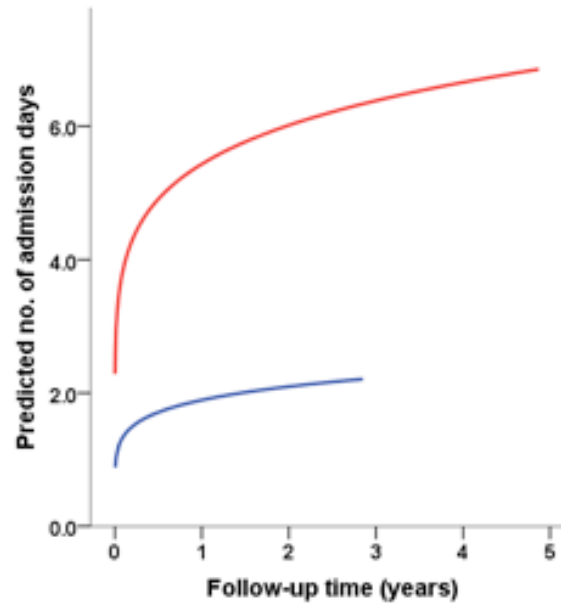
Daling van het aantal ziekenhuisopnames



$p < 0.001$

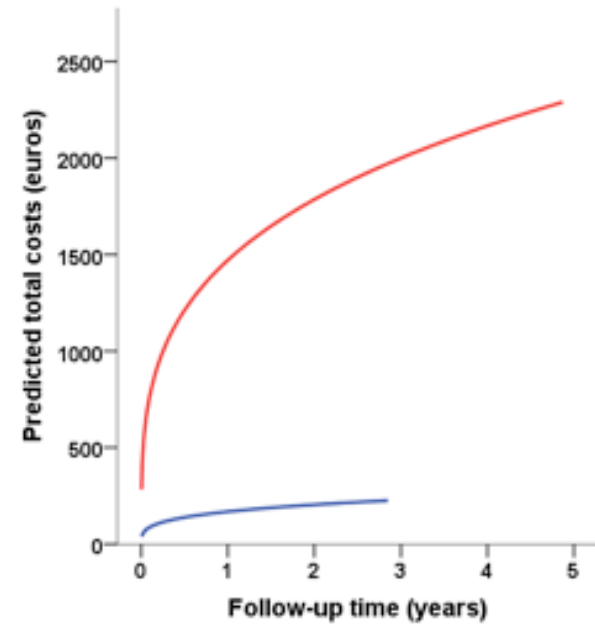
(gecorrigeerd voor geslacht, leeftijd op baseline en duur van de follow-up)

Daling van de opnameduur



$p < 0.001$

(gecorrigeerd voor geslacht, leeftijd op baseline en duur van de follow-up)



$p < 0.001$

kosten zijn 89% lager na inBeeld

(gecorrigeerd voor geslacht, leeftijd op baseline en duur van de follow-up)

Potential items for Duchenne app

Measurements, using mHealth: activity, blood pressure, heart rate, O₂Sat

Questionnaires: Quality of Life, dietary intake

Coaching: personalized advice

Information: personalized, background

Challenges

Serious gaming

Contact with doctor, physical therapist, dietician, etc etc

A succesfull app ...

- Addresses and solves a true perceived problem
- Is personalized
- Adapts to changing situations
- Is based on scientific evidence
- Functions flawlessly on a technical level
- Adheres to technical standards
- Connects to relevant other systems
- Is secure
- Is safe

- Not enough end-user participation
 - Goals
 - Interface
 - Feedback
 - ...
- Connectivity issues
- Security issues
- Project management
- Cost

Question to you!

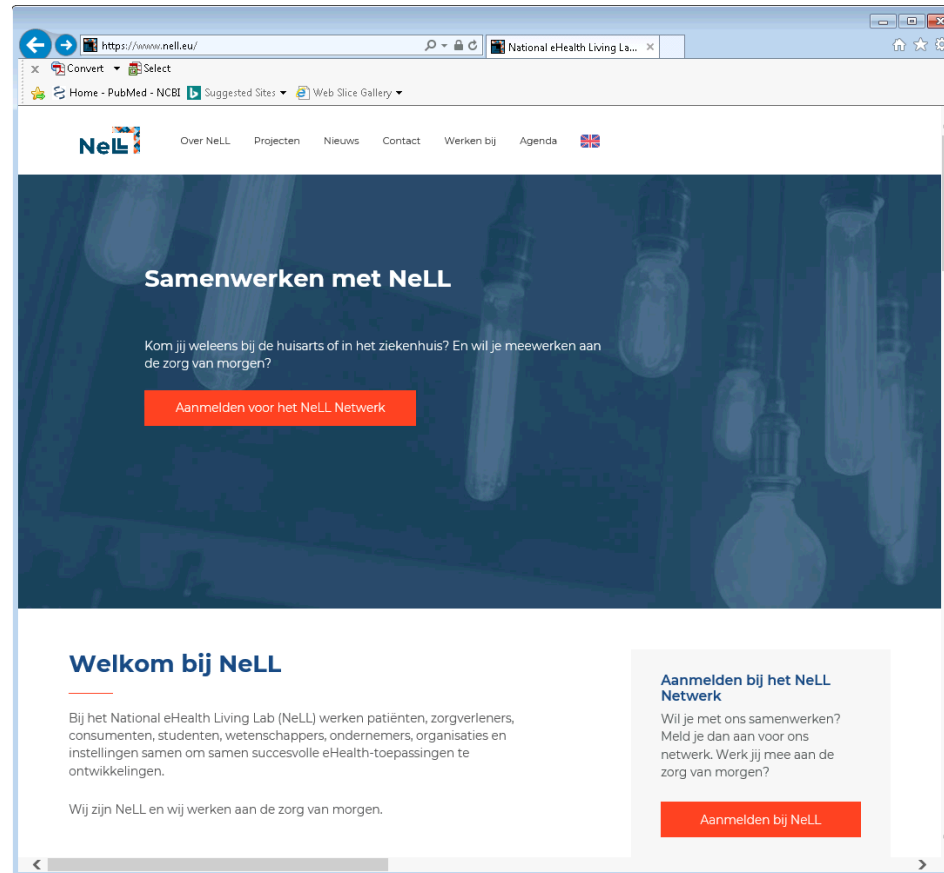
Do you think it is worthwhile to develop an app (with or without accompanying mHealth devices) for Duchenne patients and families?

If 'No'

Thank you for your attention!

If 'Yes'

Please provide feedback at info@nell.eu



www.nell.eu