

Η ψηφιακή τεχνολογία στην υγεία και τις υπηρεσίες υγείας: mhealth

Παντελής Αγγελίδης

ΕΠΙΧΕΙΡΗΣΙΑΚΟ ΠΡΟΓΡΑΜΜΑ

THEN...



NOW...



www.caglecartoons.com

http://themoderatevoice.com/wordpress-engine/files/2009_August/67736_600.jpg

«Υπέρβαση της κρίσης και αναπτυξιακή προοπτική του τομέα υγείας», 27-29 Ιουνίου 2014

mHealth

What it covers



mobile devices



Personal Digital Assistant (PDA)



smart watches & other body-worn devices or implants



With these devices it is possible to **collect big amounts of data** such as



health monitoring



lifestyle



daily activity



with this data, your doctor will make a better diagnosis & give the best treatment

patients can take control of their health: accessing their records or getting reminders about their medication



Why it is important



early diagnosis & better treatment



patients care for their own health & having healthier lifestyle



increased prevention



more efficient & sustainable healthcare



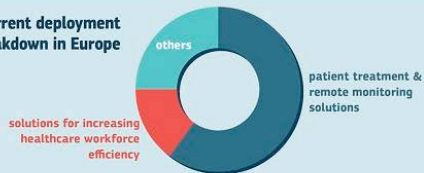
health professionals could **save 30%** of their time spent on accessing & analysing information

mHealth market



the mHealth market is sustained by over **6 billion** wireless subscriptions worldwide

Current deployment breakdown in Europe



Forecast: estimated global market value in 2017

17.6 billion EUR
divided as follows



By 2017, **3.4 billion people** worldwide will own a smartphone

1/2 will use health apps

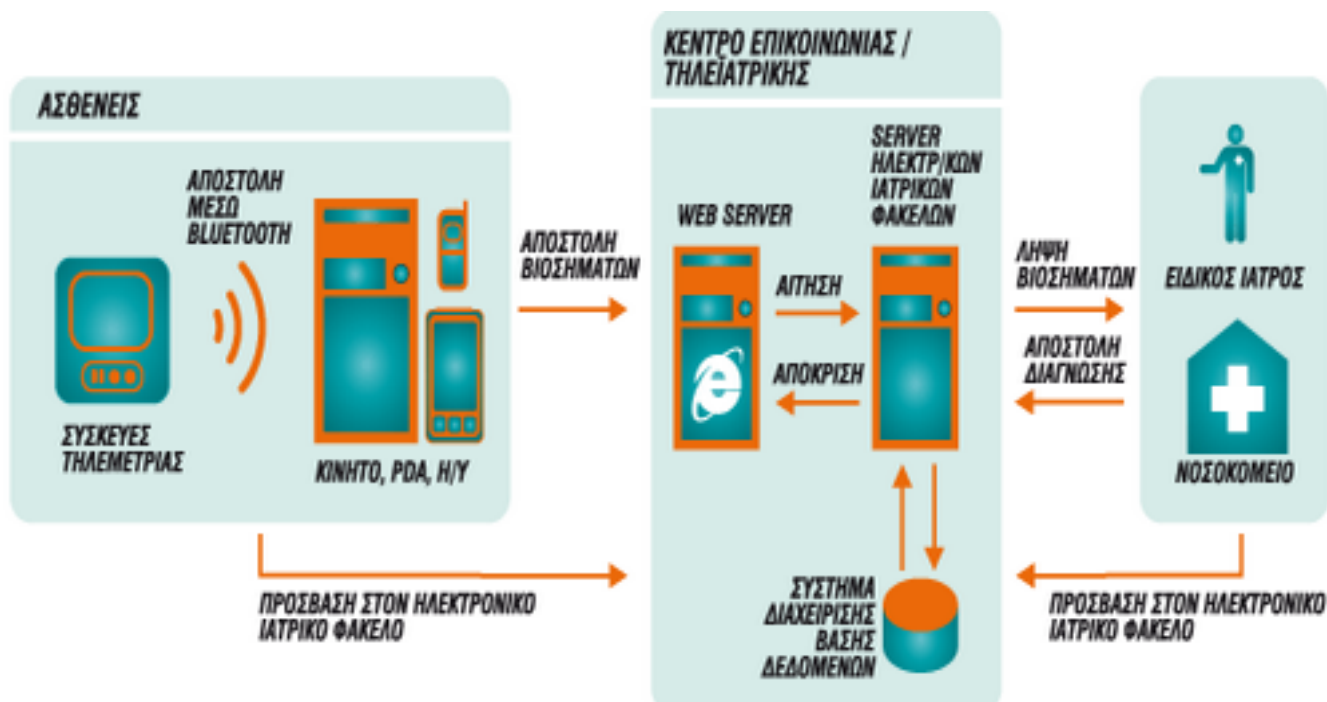


«Υπέρβαση της κρίσης και αναπτύξη

γείας», 27-29 Ιουνίου 2014



Πρωτοποριακό σύστημα τηλεμετρίας ιατρικών παραμέτρων για τη διαχείριση ιατρικών δεδομένων από απόσταση από τη Vidano.



mHealth

Αλλάζει ο τρόπος με τον οποίο η υγειονομική περίθαλψη παραδίδεται στους ασθενείς με χρόνιες ασθένειες



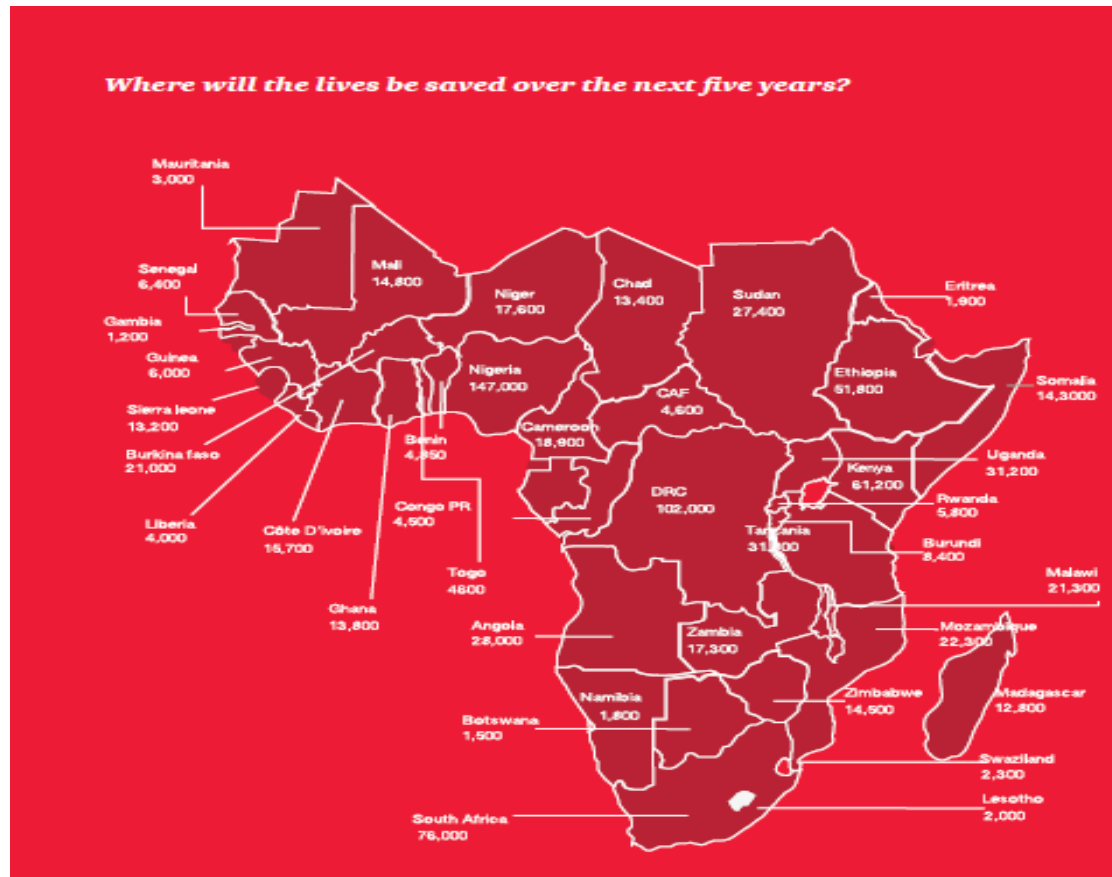
GSMA, 2012

Αυξάνεται η αποδοτικότητα και η αποτελεσματικότητα της περίθαλψης, καθώς παρέχονται στους ασθενείς περισσότερες γνώσεις και η δυνατότητα ελέγχου της κατάστασής τους ανά πάσα στιγμή

«Υπέρβαση της κρίσης και αναπτυξιακή προοπτική του τομέα υγείας», 27-29 Ιουνίου 2014

mHealth: Σώζει ζωές...

Οι εφαρμογές mHealth θα μπορούσαν να σώσουν πάνω από 1 εκατομμύριο ζωές στη νότιο Αφρική τα επόμενα πέντε χρόνια

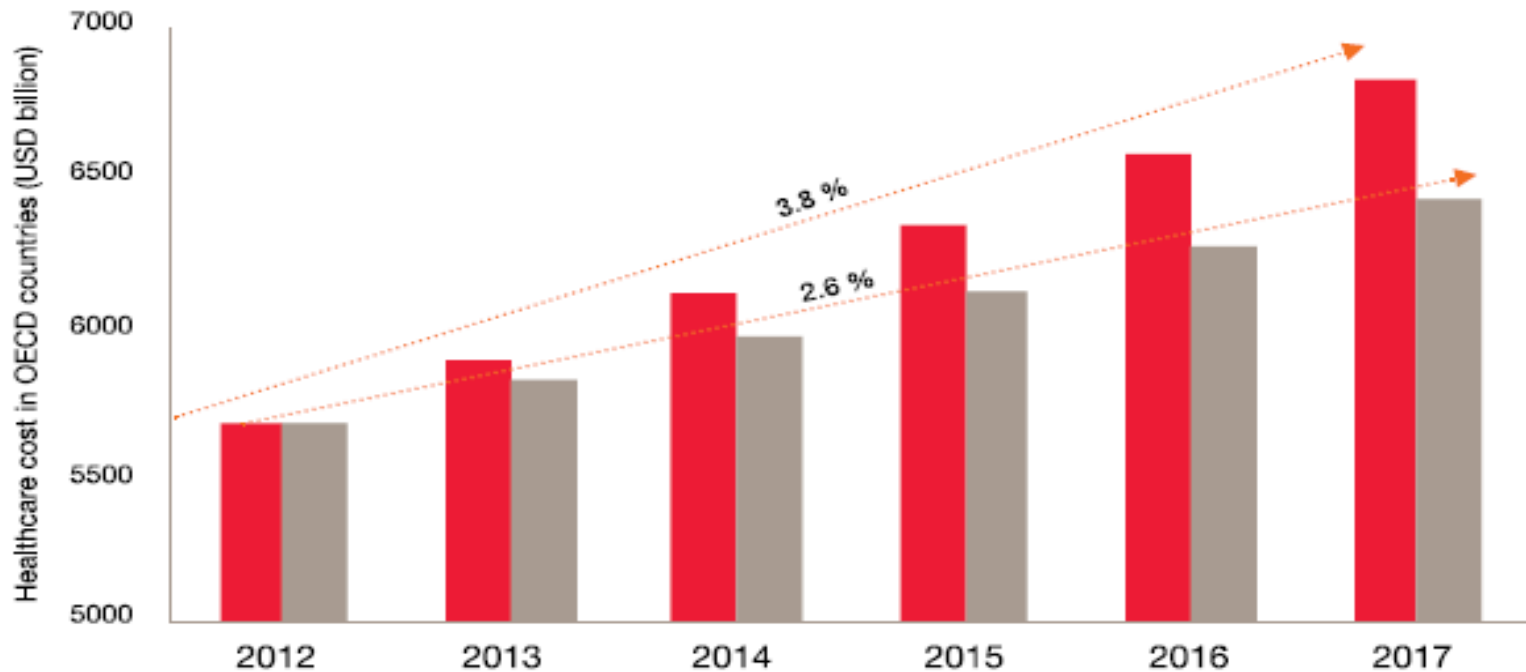


Pwc & GSMA,2013

«Υπέρβαση της κρίσης και αναπτυξιακή προοπτική του τομέα υγείας», 27-29 Ιουνίου 2014

mHealth: ...αλλά και χρήματα

Οι εφαρμογές mHealth θα μπορούσαν να βοηθήσουν στον περιορισμό του κόστους υγειονομικής περίθαλψης στις χώρες του ΟΟΣΑ κατά 400 δισεκατομμύρια δολάρια έως και το 2017.



OECD, 2011

«Υπέρβαση της κρίσης και αναπτυξιακή προοπτική του τομέα υγείας», 27-29 Ιουνίου 2014

Evidence.....

Examples of benefits and evidence



- **Evidence from Boario telecardiology and Lombardy region:**

- *Estimated annual benefit cost ratio > 3.3 : 1 by 2012*
- *Net benefit even from the first year*
- *35-47% reduction in hospital admissions (in various studies)*
- *12% reduction in outpatient visits*

Recent study results published in 2009

(Giordano et al., *Int J Cardiology* 131 (2009) 192–199):

- *36% decrease in all-cause hospital readmission*
- *31% decrease in total number of episodes of hemodynamic instability*
- *35% reduction in mean cost for hospital readmission*

Examples of benefits and evidence

- Evidence from VHA on home telehealth (cohort of ~17000 patients):
 - 25% reduction in numbers of bed days of care
 - 19% reduction in numbers of hospital admissions
 - mean satisfaction score rating of 86% after enrolment in programme

- *Evidence from trials on cardiovascular diseases*
(Source: Ericsson & HealthServices24):
 - Admissions reduced by 60%
 - 90% of the patients claimed to feel more reassured

Examples of benefits and evidence

- **Study across nearly 1000 homecare agencies in USA***
 - *Significant benefits of telehealth applications for homecare*
 - *>76% of the agencies reported reductions in unplanned hospitalisations and in emergency room visits*
 - *>71% of the agencies reported improved patient satisfaction from telehealth services*

* **“National study on the future of technology & telehealth in home care”**

by National Association for Home Care & Hospice, Philips Home Healthcare Solutions and Fazzi Associates, Inc.

<http://www3.medical.philips.com/resources/hsg/docs/en-us/custom/HomeCareStudy.asp>

Examples of benefits and evidence

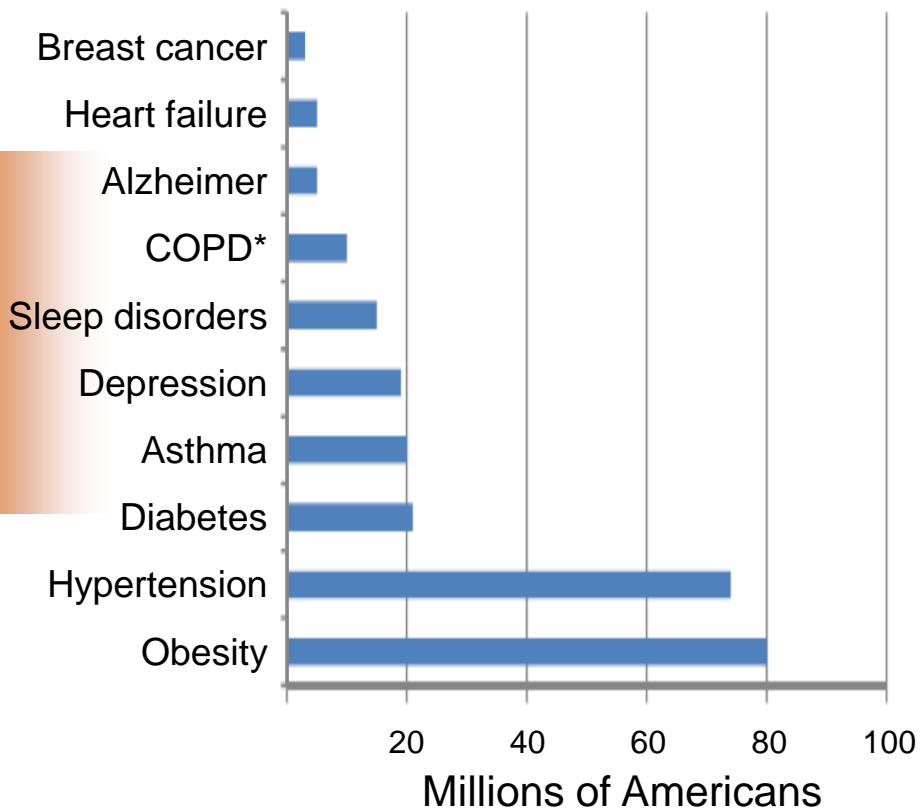
Klersy C et al. A meta-analysis of remote monitoring of heart failure patients. J Am Coll Cardiol 2009;54:1683-94.

- 20 RCTs and 12 Cohort studies (6258 and 2354 patients, respectively)
- Results (RCTs):
 - Lower number of deaths (RR: 0.83, 95% CI: 0.73-0.95, p 0.006)
 - Hospitalizations (RR: 0.93, 95% CI:0.87-0.99, p<0.03)

Polisena J, *et al.* Home telemonitoring for congestive heart failure: a systematic review and meta-analysis. J Telemed Telecare 2010;16:68-76.

- 21 studies: RCTs and observational studies
- Results:
 - Lower risk of death (5 studies): RR:0.64, 95% CI:0.48-0.85)
 - Fewer number of patients hospitalized (4 studies): RR: 0.77, 95% CI: 0.68-0.90)

Top ten conditions and diseases benefiting from wireless health

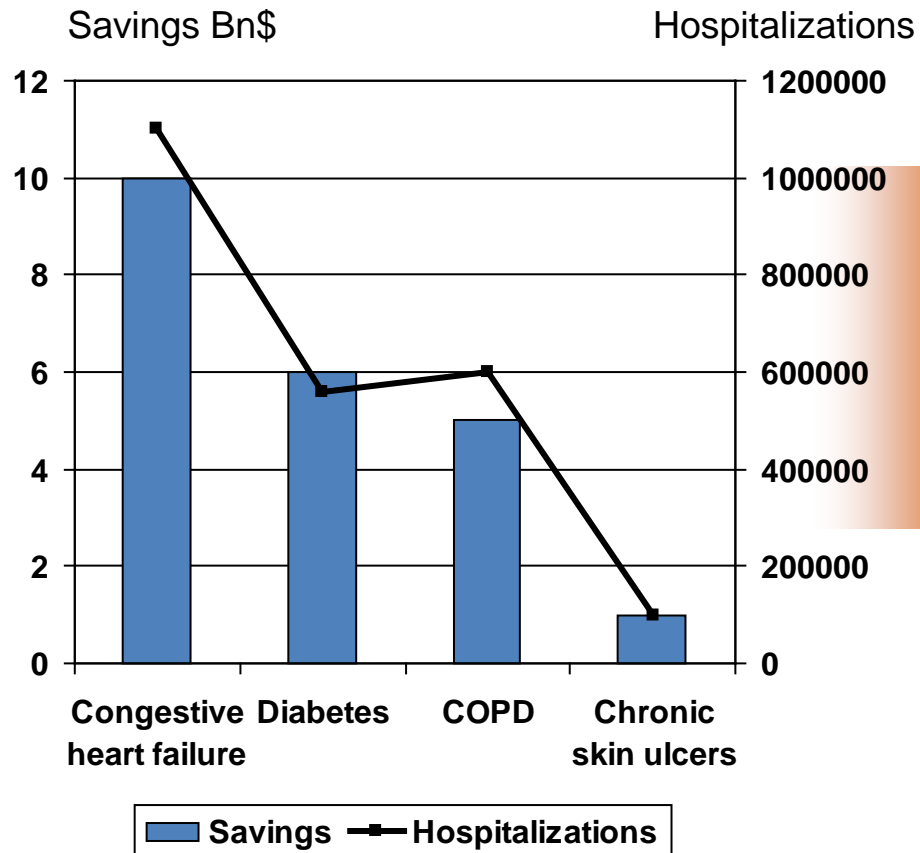


Source: Eric J. Topol, M.D. Scripps Translational Science Institute & West Wireless Health Institute

Data provided for this presentation by Manfred Kube – January 2010, Mobile Healthcare, Cinterion Wireless Modules

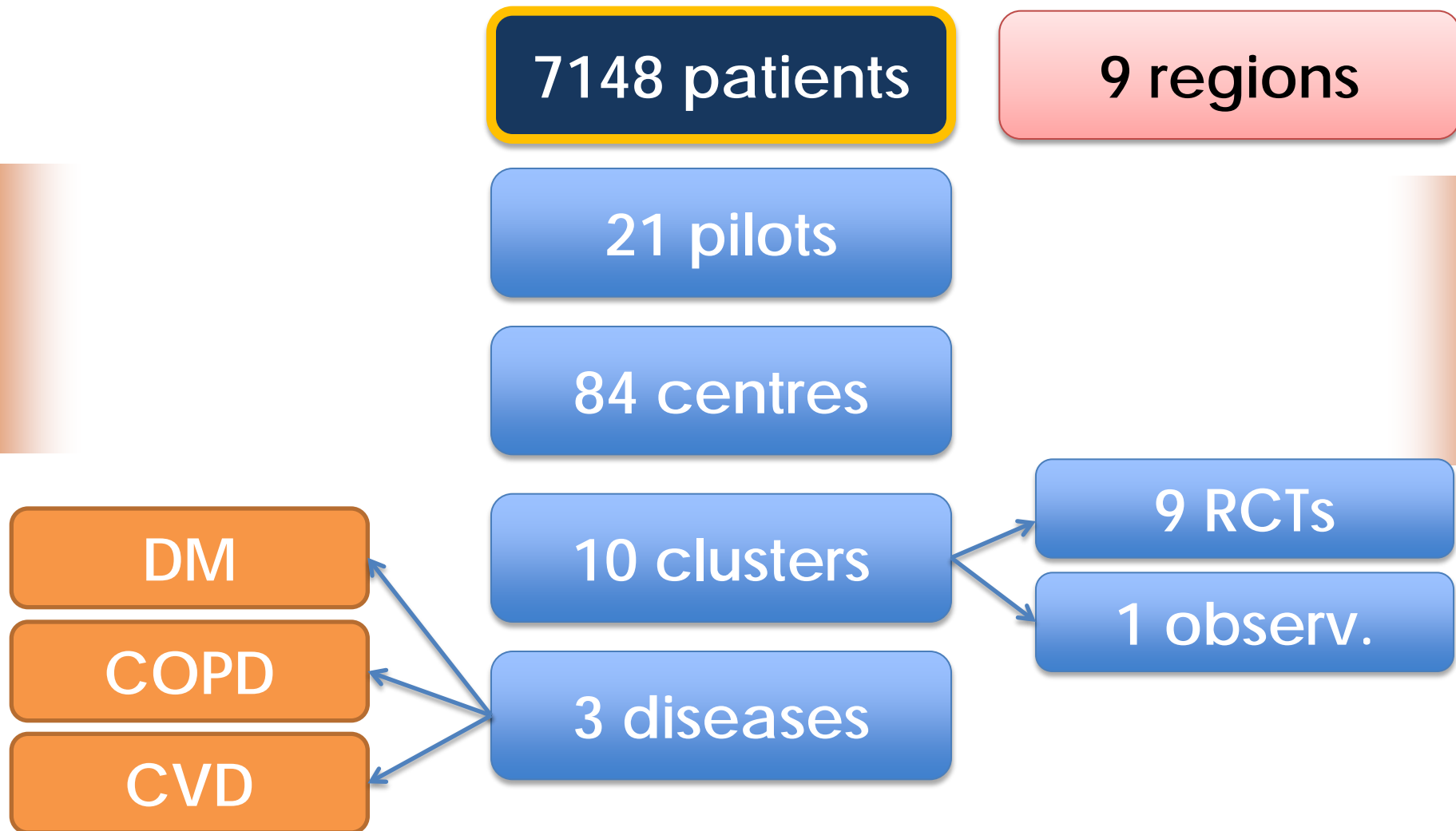
* Chronic Obstructive Pulmonary Disease

Potential annual savings from adoption of remote health monitoring

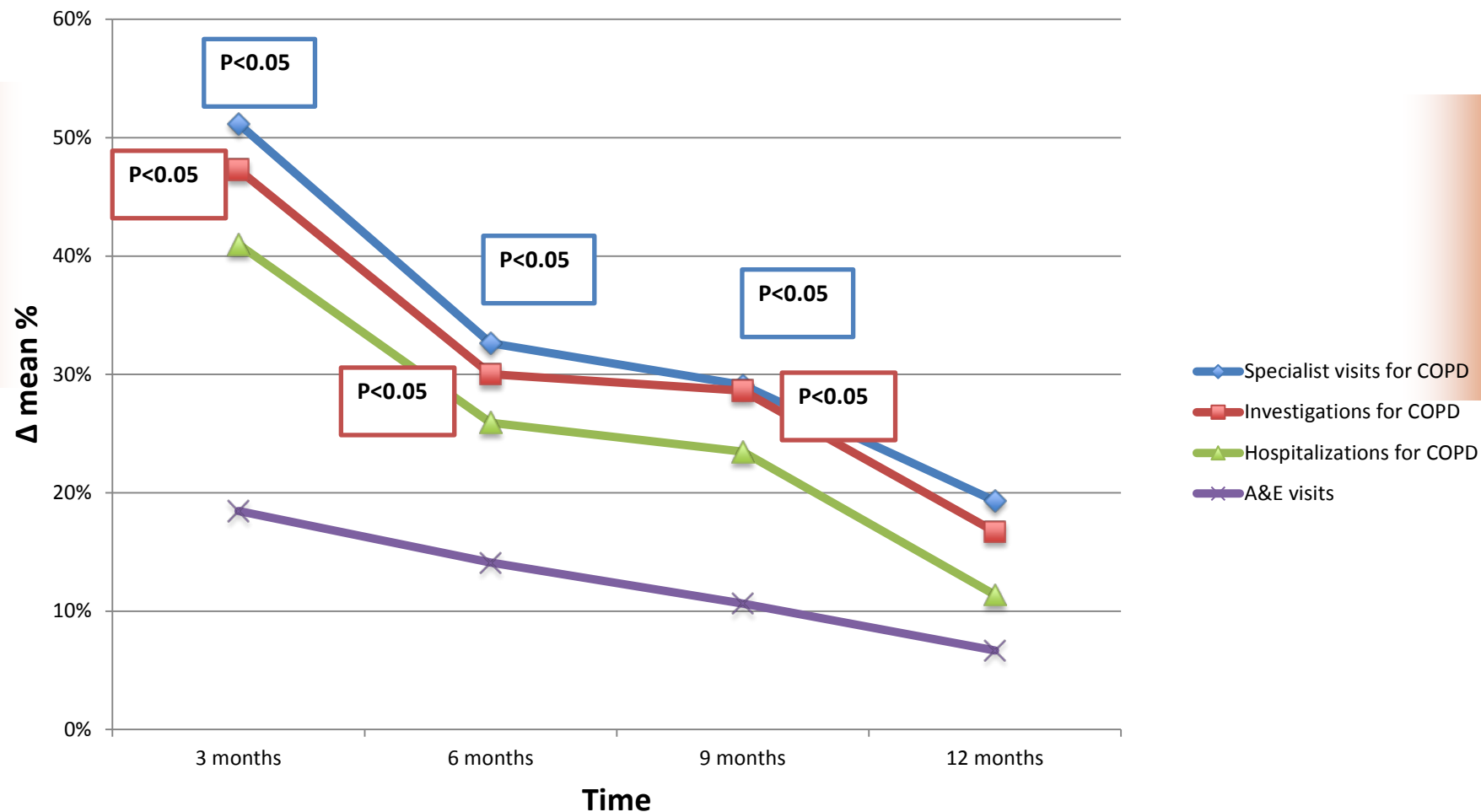


Source: Betterhealthcaretogehter.org

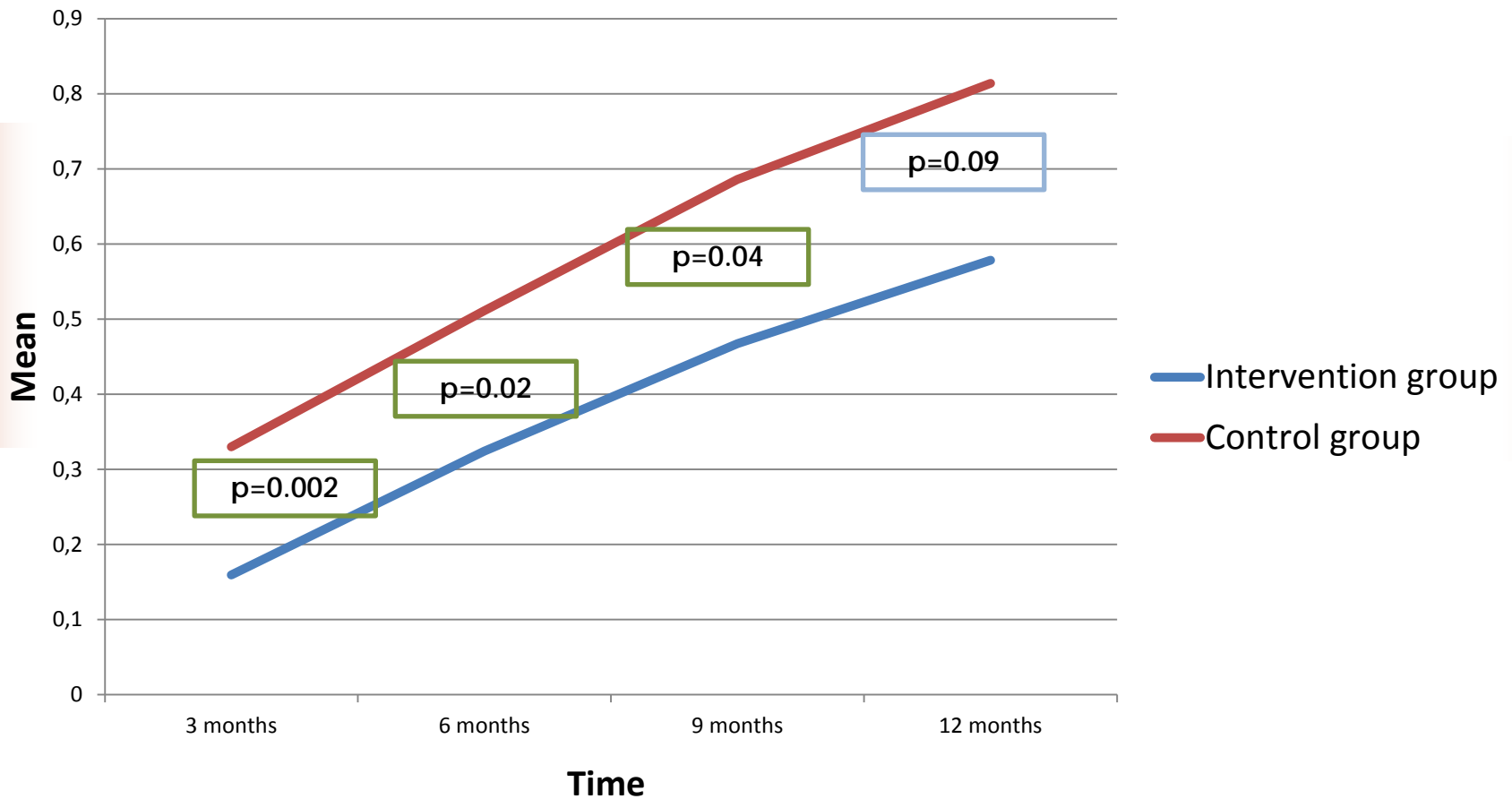
Source: Ilias Iakovidis, DG INFSO



Hospitalizations for COPD



Hospitalizations for CHF



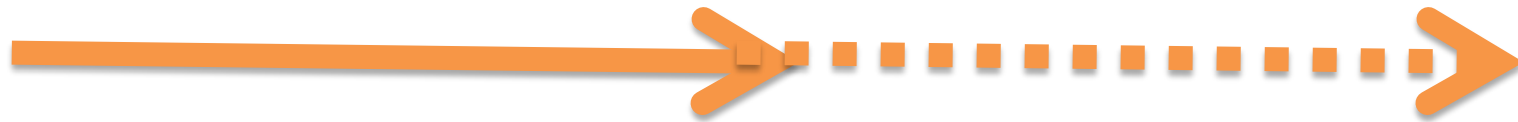
Real life.....

«Υπέρβαση της κρίσης και αναπτυξιακή προοπτική του τομέα υγείας», 27-29 Ιουνίου 2014

Barriers

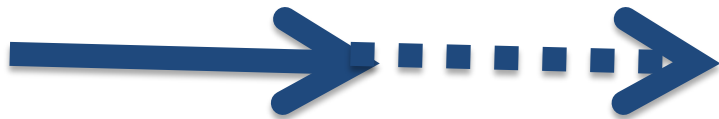
1. disconnect between who pays for and who benefits
2. lack of incentives, or even the presence of negative incentives, to invest
3. lack of incentives to adopt interoperable, standard-based technologies
4. “technicalities”: organization and governance issues, lack of sustainable business models, technical issues, difficulty engaging practicing clinicians and issues of patient privacy and legality

Το πρόβλημα του χρονισμού



Ωρίμανση Τηλεματικής Χρονίων Πασχόντων

5-10 Χρόνια



Κυβερνητική Θητεία

2-4 Χρόνια



Θητεία Υπουργού

1-2 Χρόνια

Policy intervention works

Home ▸ News ▸ Healthcare ▸ Electronic Medical Records Mandate January 2014

January 1, 2014 Federal Mandates for Healthcare: Digital Record-Keeping Will Be Required of Public and Private Healthcare Providers

DIGITAL AGENDA FOR EUROPE

A Europe 2020 Initiative

for Europe > DAE & U

online

Growth & Jobs

Science &
Technology

Telecoms
Internet

Public consultation on the
Green Paper on mobile Health



«Υπέρβαση της κρί

» Ιουνίου 2014

Policy Actions required

Νέες υπηρεσίες ολοκληρωμένης διαχείρισης χρονίως πασχόντων

Πρωτοβάθμια

Εκπαίδευση/ενημέρωση/επιμόρφωση

Επενδύσεις

Νομικό και Θεσμικό πλαίσιο



«Υπέρβαση της κρίσης και αναπτυξιακή προοπτική του τομέα υγείας», 27-29 Ιουνίου 2014

Doctor quits over EHR use

"Not being able to type and feeling very awkward in the use of computer documentation, ordering and billing have limited my ability to effectively and in a timely manner see my patients, return calls and send out lab reports," the physician wrote in an April 12 letter to his patients

<http://searchhealthit.techtarget.com/news/2240035407/As-one-doctor-quits-over-EHR-use-experts-lament-opportunities-missed>

Ευχαριστώ για
την
πρόσκληση

@PantelisAng



"If I have to be at these boring meetings, I might as well get something out of it."