

# mHealth by Kiwok



## SUMMARY

### THE PROBLEM THAT KIWOK ADDRESSES

Healthcare providers are under pressure to reduce costs of care.

### THE SOLUTION THAT KIWOK OFFERS

A Mobile and interactive body close sensor technology - BodyKom

# BodyKom ECG

Secure communication  
over the mobile net



## **BodyKom ECG** care benefits

Earlier  
diagnosis

More effective  
treatment

Treatment  
follow up

Caregiver  
support

# How BodyKom remote monitoring works

**1.** ECG signals are recorded on BodyKom equipment



**2.** ECG data is transmitted to phone via bluetooth



**3.** ECG data is transmitted across any mobile network



**4.** ECG data is processed in the BodyKom server



**5.** Caregiver and other registered parties are notified of abnormal heart behaviour



**6.** ECG data is delivered to caregivers' analysis application via an adaptor



## BODYKOM™ ECG PATIENT KIT

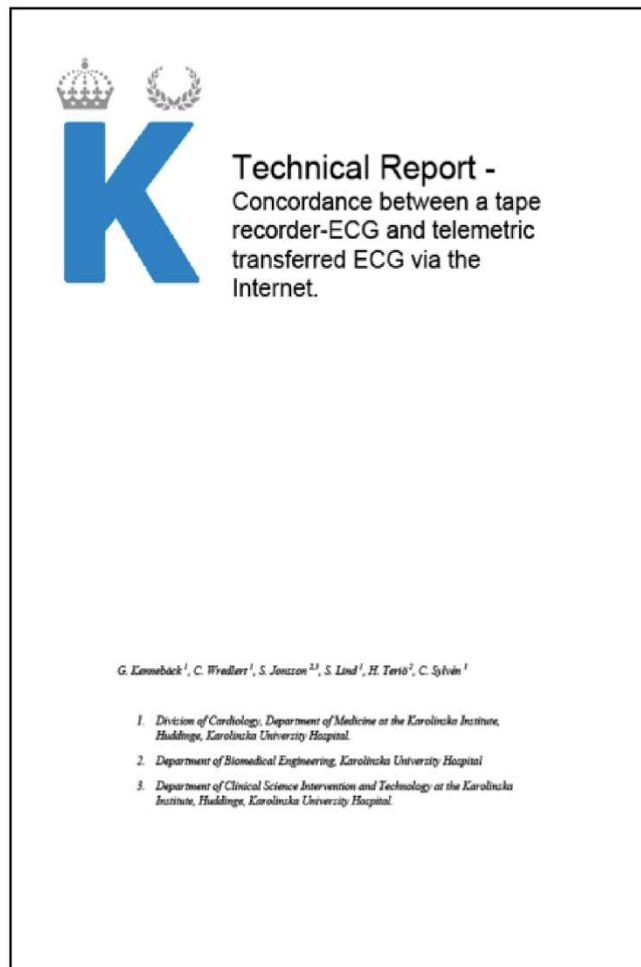


External power pack

BodyKom transmitter

BodyKom Recorder

## Technical report of BodyKom Remote Monitoring ECG



The service is tested since 2006 at Karolinska University Hospital, Stockholm, Sweden

Built by CE certified standard components. In CE process for EU.

Sale in full scale in progress in the Nordic countries and India.

So far there are 15 pilot installations in Sweden.





## MHEALTH

Financial Times, September 2010

” The next step will be adding mobility.....Deloitte calls this the “killer app” for health care providers. ”

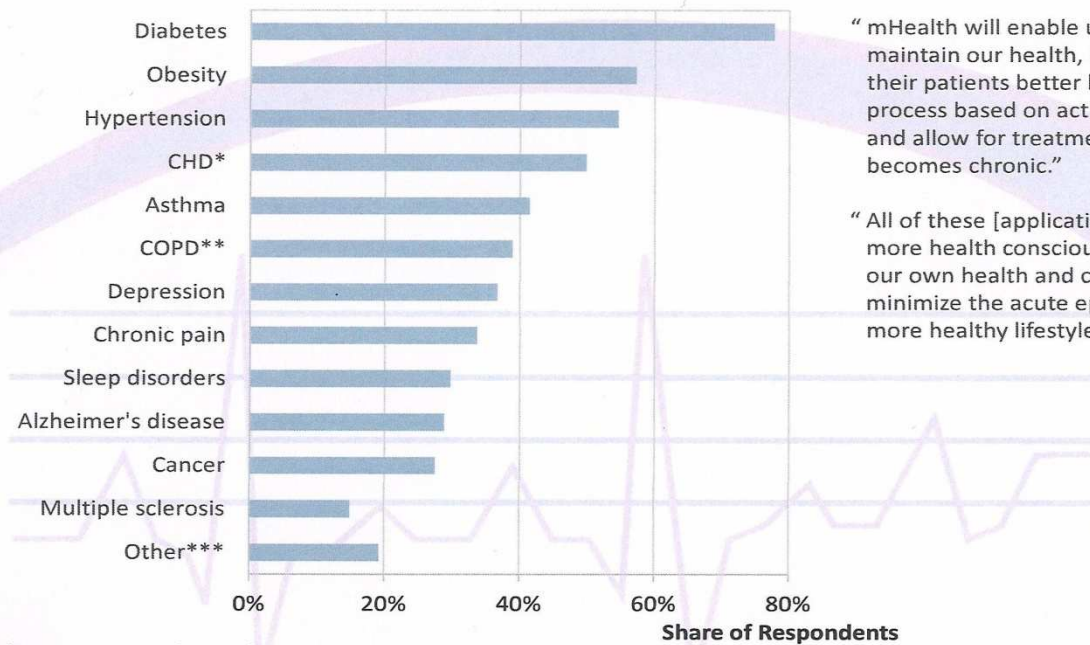
## Summary

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- The majority of participants forecast mHealth to break through in the next five years.
- Nearly 80% of respondents see diabetes as the therapeutic area with highest business potential.
- Today healthcare interested people and clinical doctors are the main target groups for mHealth solutions, as perceived by 61% and 58% of respondents, respectively.
- Mobile health solutions for patients and professionals differ a lot in their business potential: survey participants concentrate most on medication compliance and health tracking tools for patients, and on remote monitoring and continuing medical education solutions for professionals.
- Almost 70% of survey participants agree that app developers and agencies will be the main players in the market.
- Smartphone penetration is seen as the main driver for mHealth by 63% of respondents.
- Lack of standardization (50%), regulation (49%) and market transparency (49%) are the main barriers facing mHealth.
- Smartphones will offer the highest business potential for mHealth compared to other handheld devices.
- App stores will lose their role as main distribution channels for mHealth solutions.
- Android and iOS will be preferred mobile platforms for mHealth solutions.
- mHealth apps are seen as tools to improve communication between patients and healthcare professionals and amongst healthcare professionals.

## Diabetes is seen as the therapeutic area with highest business potential

Which therapeutic areas offer the best market potential for mHealth solutions?



“mHealth will enable us to learn about and maintain our health, helping the clinicians to know their patients better by enabling an interactive process based on actual, daily recorded metrics, and allow for treatment before the disease becomes chronic.”

“All of these [applications] will enable us to be more health conscious and active, more aware of our own health and chronic conditions, helping minimize the acute episodes in our life, enabling a more healthy lifestyle.”

\* CHD refers to coronary heart disease

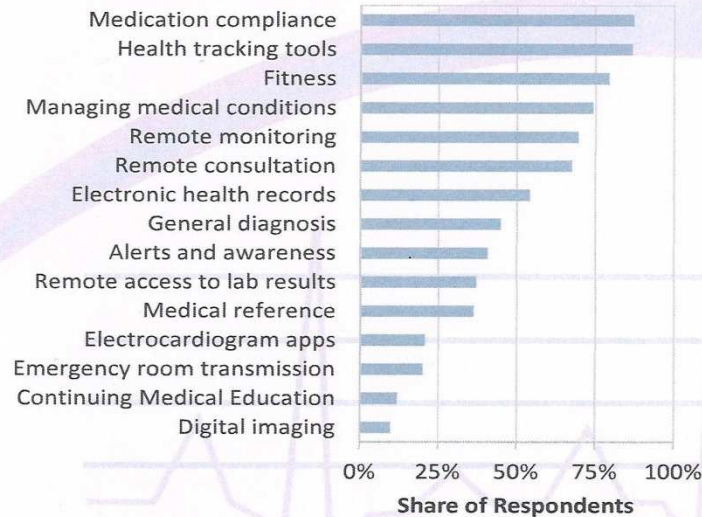
\*\* COPD refers to chronic obstructive pulmonary disease.

\*\*\* Other chronic diseases such as HIV, Aids, epilepsy, infectious diseases, other less serious illnesses.

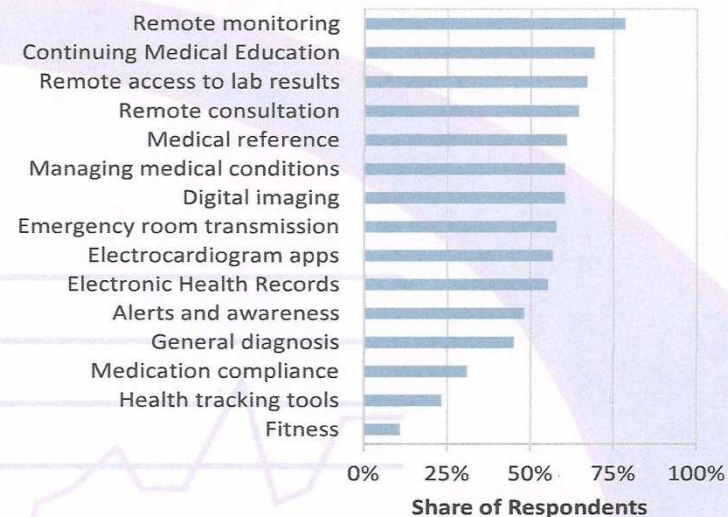
## Mobile health solutions for patients and professionals differ a lot in their business potential

What mHealth solutions offer the biggest market potential for medical professionals and patients?

### Patients



### Professionals

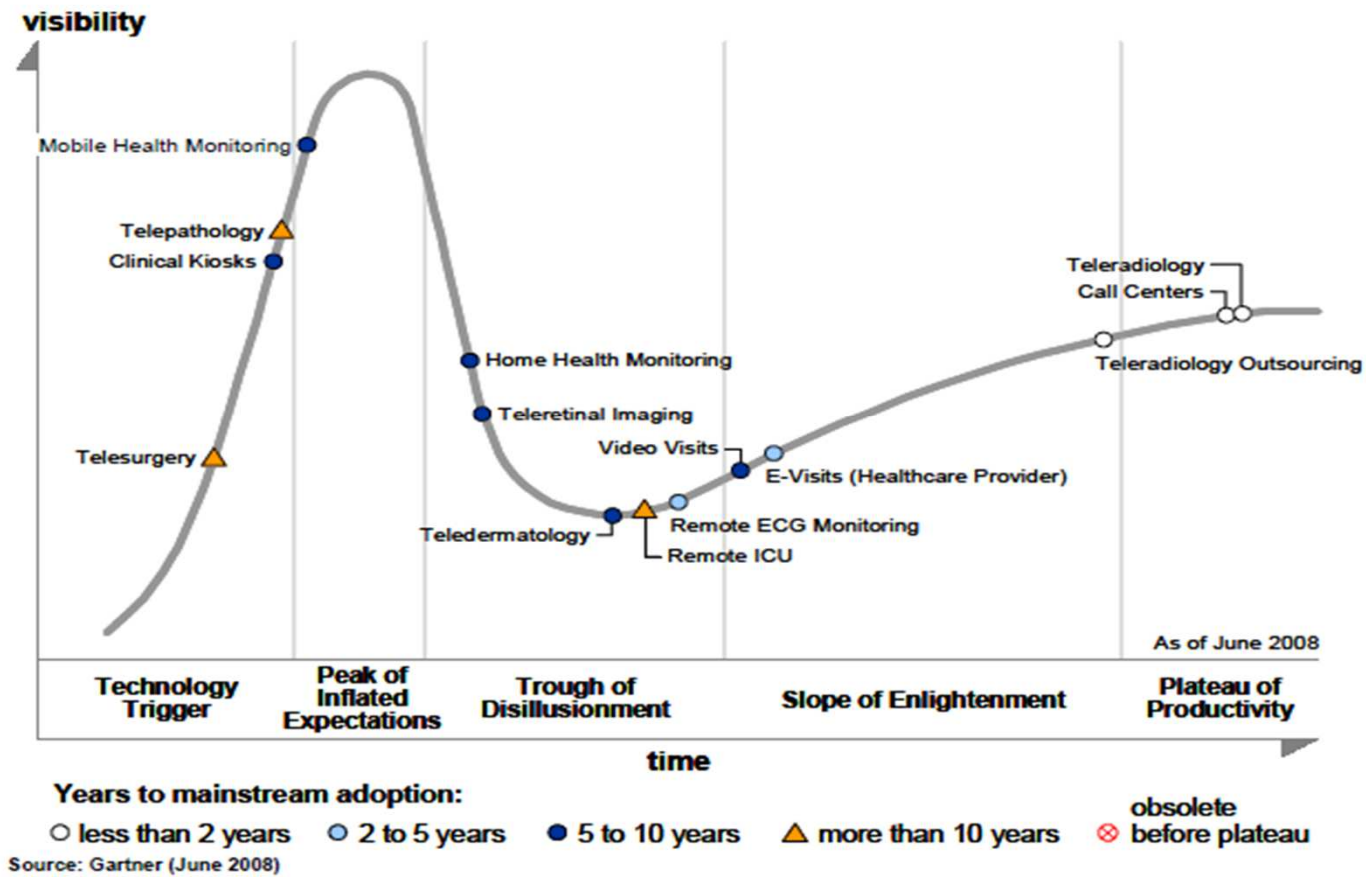


“mHealth has the potential to prevent patients from being lost in the system after leaving the doctor’s rooms. Consumers will be able to improve wellness in their daily lives, as with mHealth solutions they will remain “always connected” to their healthcare providers.”

“A digital dialogue, centered around an individual patient and his 3D anatomical display, will be the future of virtual medical solutions.”

## GARTNER HYPE CYCLE

Figure 1. Hype Cycle for Telemedicine, 2008



## THE MARKET

Kiwok is a medtech company addressing the remote monitoring market with a mobile solution. mHealth is by many healthcare professionals seen as the solution to worlds healthcare shortage

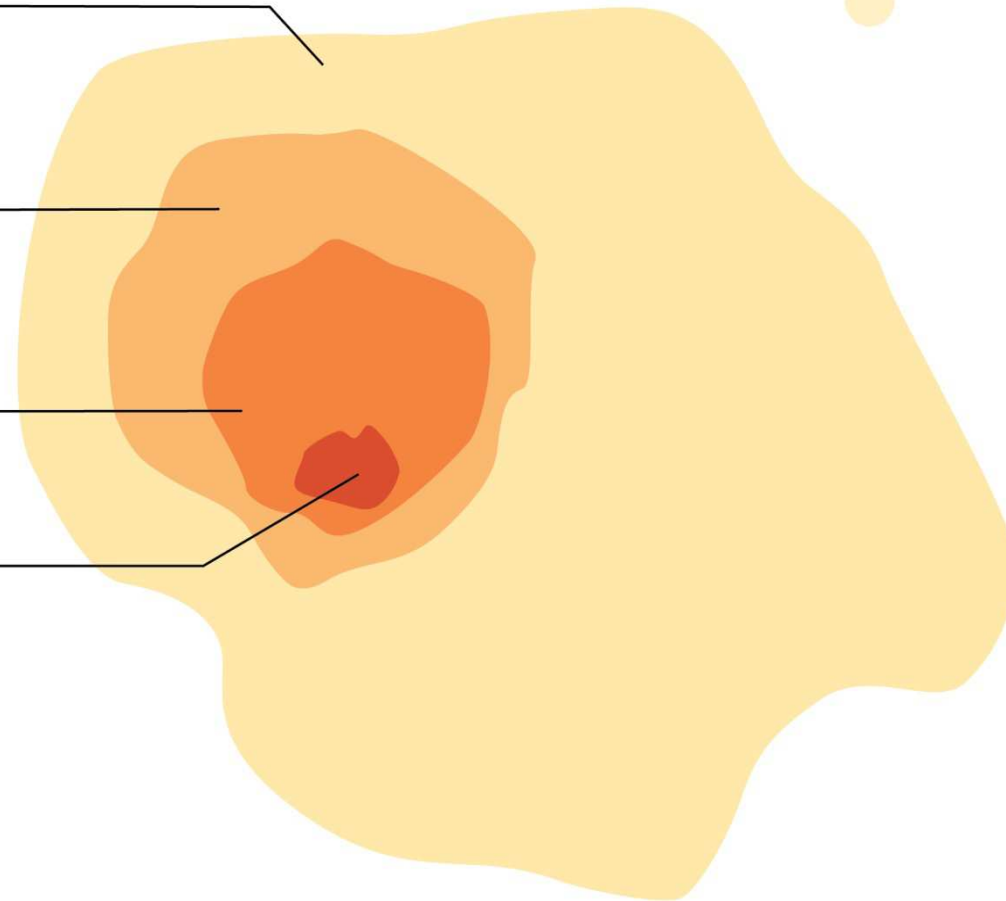
## Global mHealth market

4 billion people in the risk zone of lifestyle diseases

400 million people Identified with Coronary Artery Diseases

A Growing market Demand for 120 million ECG Analyzes

12 million ECG analyses 2011



## BodyKom<sup>TM</sup> – securing the no. 1 position worldwide

### Method Patent

- Granted method patent in the United States
  - Method patents also applied for in Europe, India, Canada and South Korea

### CE Certification

- The application for CE certification of the in-house developed software was filed in early 2011

### FDA Approval

- Study of requirements for FDA approval in the U.S. is currently in progress



## Awards



Sjukvårdens  
IT-pris 2006



*Guld*  
MOBILEN



**Gartner**

## THE EVOLUTION OF BODYKOM™

- Developed by Kiwok in collaboration with HP, WIP and Karolinska since 2004
- Servers in cooperation with Hewlett-Packard
- Mobile Software and Mobile Communications (WIP)
- Decision Support System (FICO)
- ECG Recorder (SR Medizinelektronik)
- Ethical application, patient studies and technical reports  
(Karolinska)
- Cool Vendor Report (Gartner 2009)
- Itanium Innovation Award (Intel 2009)

## THE EVOLUTION OF BODYKOM™

- References: Karolinska Sjukhuset, since 2006, Syster Gudrun projektet, Landstinget Blekinge 2010 - 2011, and Centrum för Telemedicin, 2012.
- The split up of BodyKom into a product line, 2011.
- Introducing 24h ECG analysis as a product, 2011.
- Participating in public procurements in Landstinget Västerbotten, Söder Sjukhuset and Landstinget Dalarna, 2011.
- Initiating a joint venture with Blekinge Tekniska Högskola, 2011.

- Establishing a ECG Analysis Center in

## THE BOARD

### **Kiwok Nordic AB (publ), Stockholm**

Mats Norman, chairman, MD, CEO GlobenHeart

Anders Brinck, CEO Shortcut Media AB

Stefan Holmström, CEO, MD and Chief Medical Officer  
Every

Åke Olsson, owner Kiwok and Bengt Nielsen, GE  
Healthcare, nominated

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Anders Björlin, Kiwok

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Per Ceder, chairman, CEO Nordic Finance, Nicosia

## THE TEAM

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Anders Östlund, Chief Operating Officer

Anders Björlin, Business Architect and  
Sitemanager Karlskrona

Johan Östlund, Chief Financial Officer

Lena Schelin; Key Account Manager

Nordic Finance, Cuprys, Manages Kiwok Ltd.