



Grupo

CMC

Working in predictable results



ARTICA
telemedicina

mHealth: Aplicaciones móviles en el
seguimiento y gestión de enfermedades

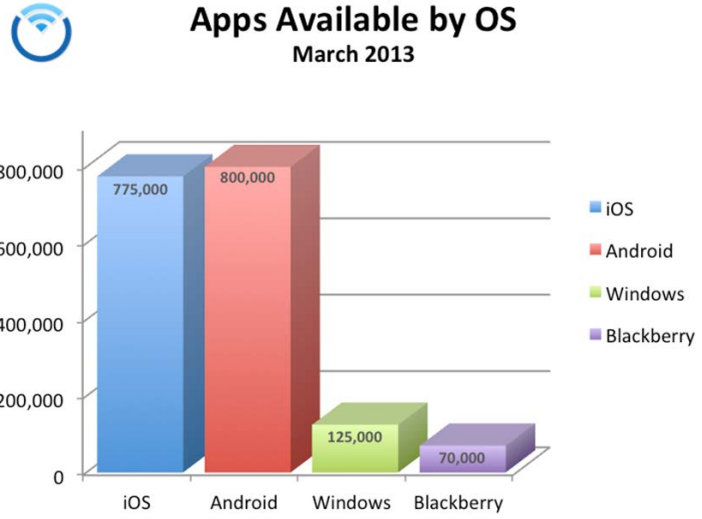
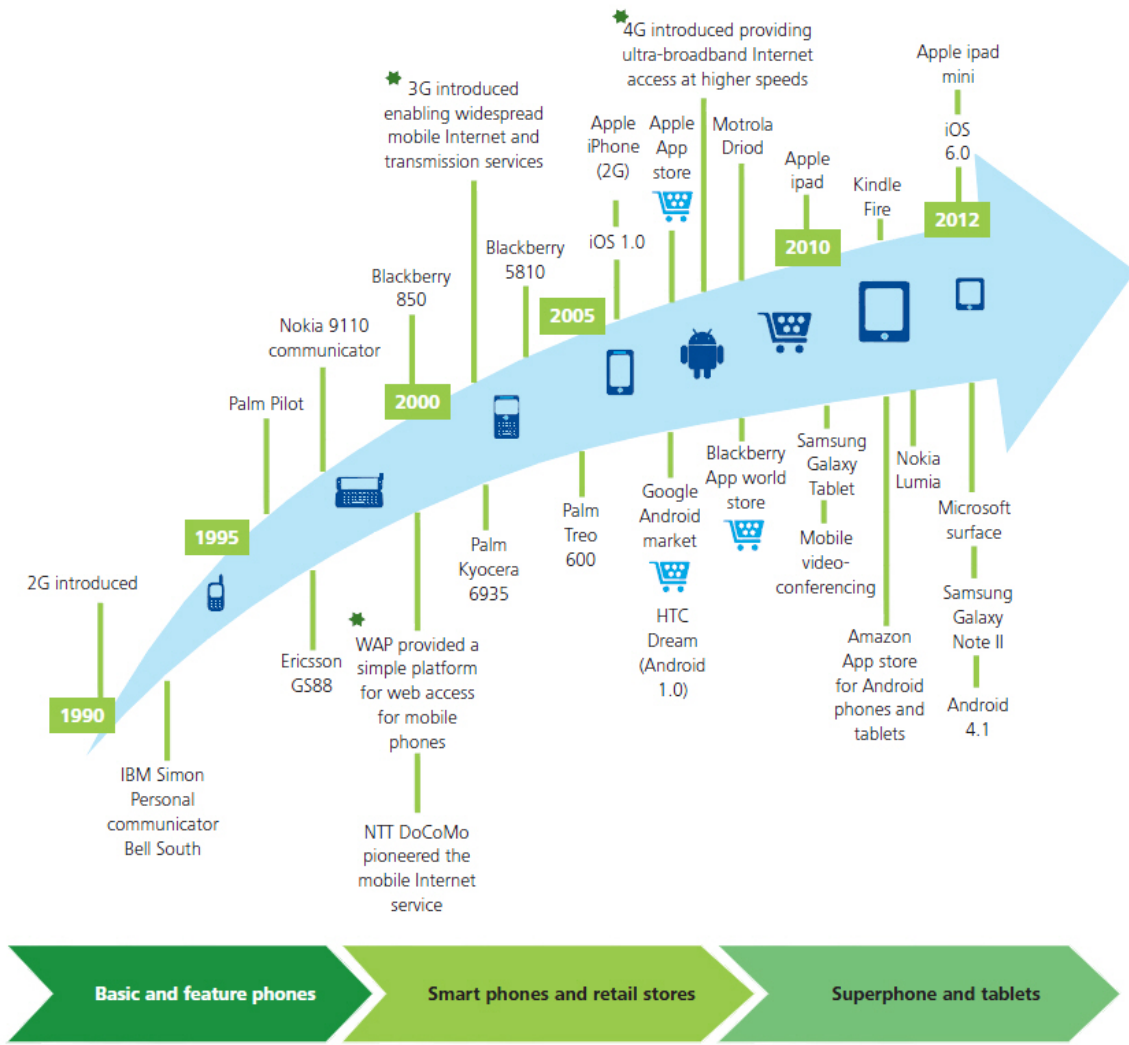


Figure 1. History of smart mobile devices



Source: Brief history of Smart Phones. PC World Jun 18, 2010 <http://www.guardian.co.uk/technology/2012/jan/24/smartphones-timeline>

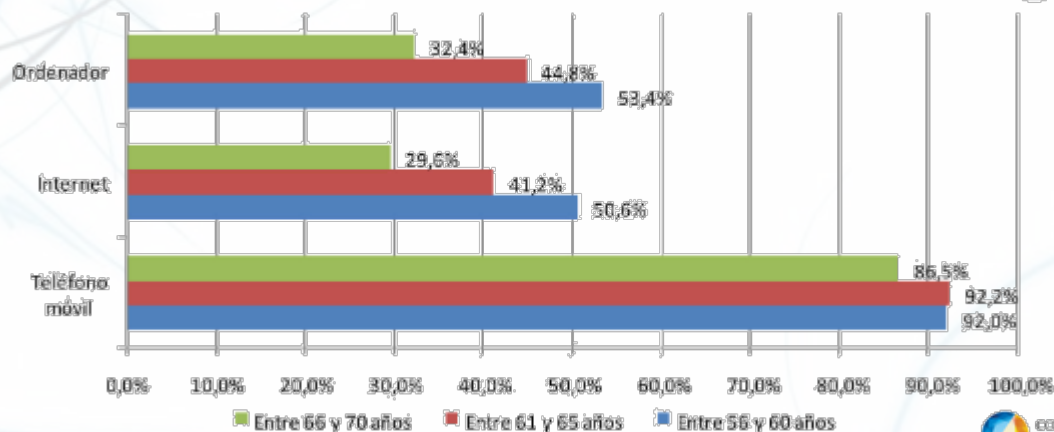
La Sociedad de la Información en el Mundo

- o 96% Tasa Media Subscripción a teléfono móvil (África 63%) (68% en 2008)
- o 1.600 millones de usuarios de Banda Ancha Móvil (Europa 70% población)
- o 1.690 millones de Smartphones (Aumento del 80% en 1 año).
- o 7/10 Smartphones son Android
- o 38% Población mundial es Internauta habitual.

Spain	3 m/e Dec 2013
Android	86.2
BlackBerry	0.2
iOS	6.7
Windows	5.6
Other	1.3

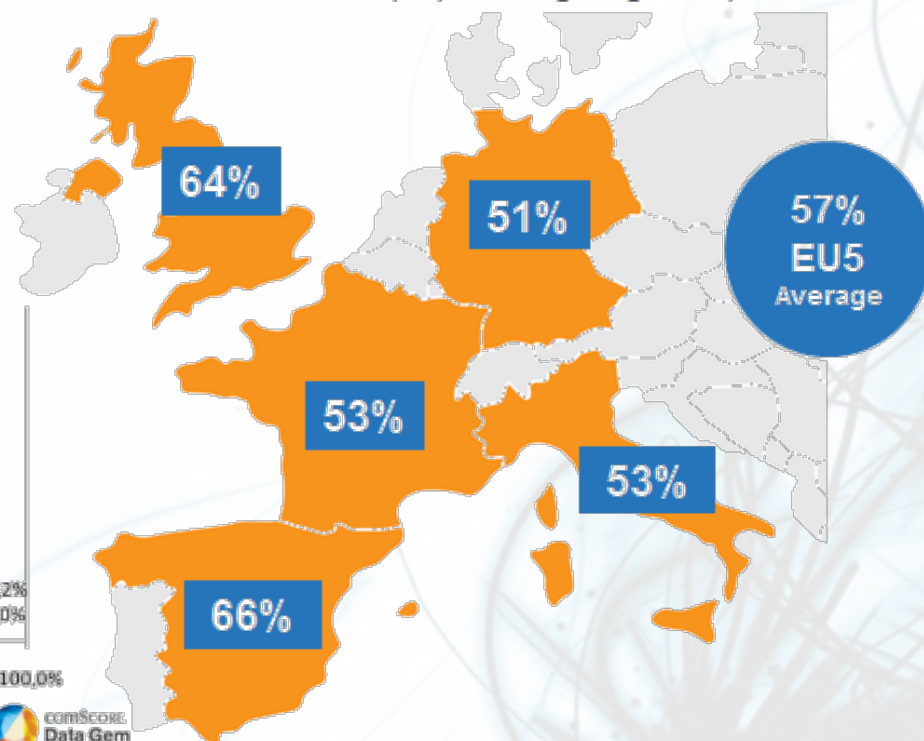
La Sociedad de la Información en España

- o Hogares con Acceso a Internet: 68%
- o Hogares con Telefonía Móvil: 96%
- o Internautas habituales: 70%, de los cuales:
 - o 44% acceden vía móvil
 - o 45% usan banca móvil
 - o 61% usan redes sociales

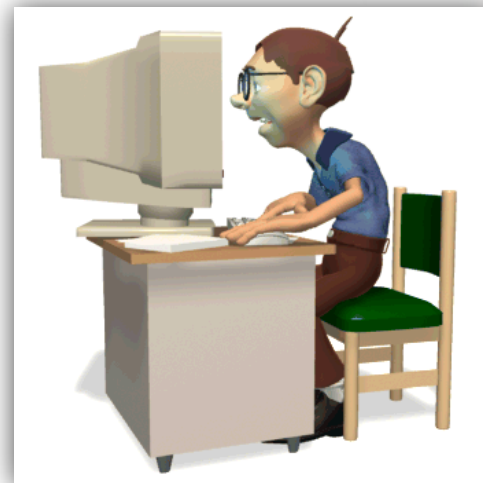


Smartphone Penetration Across the EU5 Countries

Source: comScore MobiLens, EU5, 3 Month Avg ending Dec 2012, 13+



¿Por qué es una revolución?



mHealth según la OMS

- *“Medical and public health practice supported by mobile devices, such as mobile phones, patient monitoring devices, personal digital assistants and other wireless devices”...*
“mHealth is a component of eHealth”



mHealth según HIMSS

- *“mHealth is the rapidly growing practice of medicine and public health supported by mobile devices”*



mHealth según HRSA

- *“mHealth is the use of mobile and wireless devices to improve health outcomes, healthcare services and health research”*

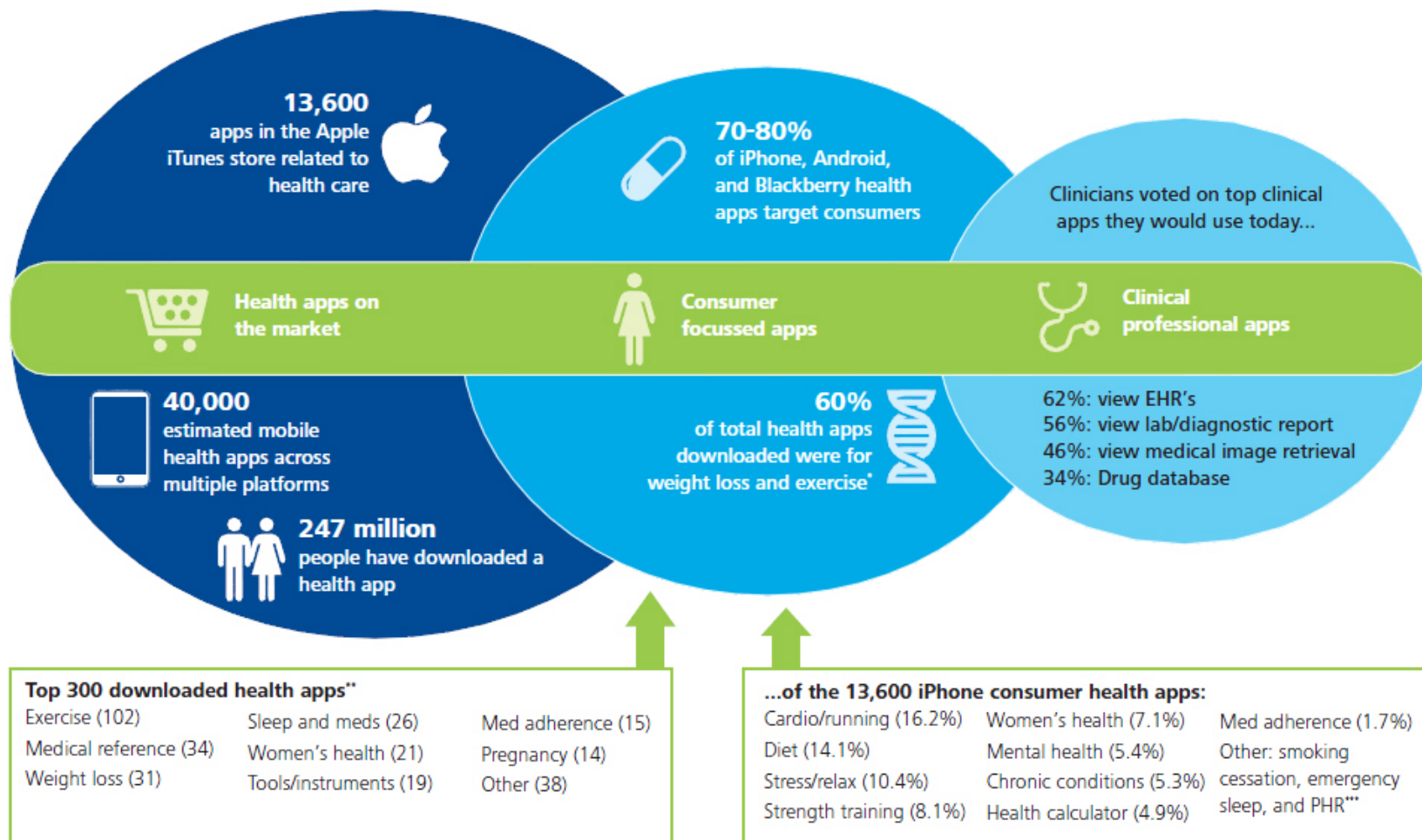


mHealth según mHealth Alliance

- *“mHealth stands for mobile-based or mobile-enhanced solutions that deliver health. The ubiquity of mobile devices in the developed or developing world presents the opportunity to improve health outcomes through the delivery of innovative medical and health services with information and communication technologies to the farthest reaches of the globe”*



Figure 6. "There's an app for that...."



Source:

* As of March 2012, iPhone and Android combined Source: "Mobile Health Applications: 2012 study", Verasoni Worldwide, August 2012

** Source: Dunbrack L. "The second wave of clinical mobility: Strategic solution investments for Mobile point of care", December 2011, IDC Health insights

*** PHR = personal health record. Source: "An analysis of consumer health apps for Apple's iPhone 2012," Mobilehealthnews, July 11, 2011

booz&co.



M-HEALTH

PHYSICIAN USE OF MOBILE TECHNOLOGY

DOCTORS ♥ TABLETS

250% MORE LIKELY TO OWN A TABLET THAN ANY OTHER CONSUMERS



USE TABLETS FOR MEDICAL PURPOSES

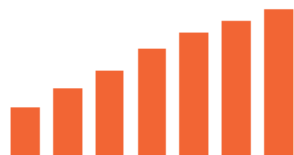


FIND THEY EXPEDITE DECISION MAKING



REPORT MOBILE DEVICES DECREASE TIME SPENT ON ADMINISTRATION

U.S. PHYSICIAN SMARTPHONE ADOPTION



IN 2012
85%
OF U.S. PHYSICIANS OWNED OR USED ANY SMARTPHONE PROFESSIONALLY

ONLINE PATIENT-PHYSICIAN COMMUNICATION



of U.S. physicians communicate online with patients via email, secure messaging system, instant messaging, or online videoconferencing



of clinicians—doctors, nurses, and nurse practitioners—now use smartphones in their practice areas every day, up from 78 percent in 2012



of all clinicians use tablets daily, up from 34 percent in 2012

The emerging field of mobile health (m-health) has enabled consumers to use smartphone technology to answer their own health-related questions with the quick tap of a touch screen. Here's a look at m-health and the impact it's making on our culture and our well-being:



visits to physicians' offices were made by Americans in 2011



of U.S. consumers are interested in m-health solutions

~85%

of doctors use smartphones and medical apps



There are more than
10,000

medical/healthcare apps available in Apple's iTunes App Store

56% of doctors who use mobile devices say they expedite decision making

40% say they decrease time spent on administration

Only **28%** of smartphone users and **18%** of tablet users describe themselves as "very satisfied" with the quality of medical apps currently available



It's the third-fastest growing app category for both iPhone and Android phones



of doctors would like their patients to **monitor their health at home**, particularly their weight, blood sugar, and vital signs

PATIENT USE OF MOBILE TECHNOLOGY



13% have accessed, stored, or transmitted personal health information or records in the past year
48% are interested in doing so



52% say they would like access to tools or websites that enable them to review quality rankings, satisfaction rankings, and patient reviews for specific doctors and hospitals

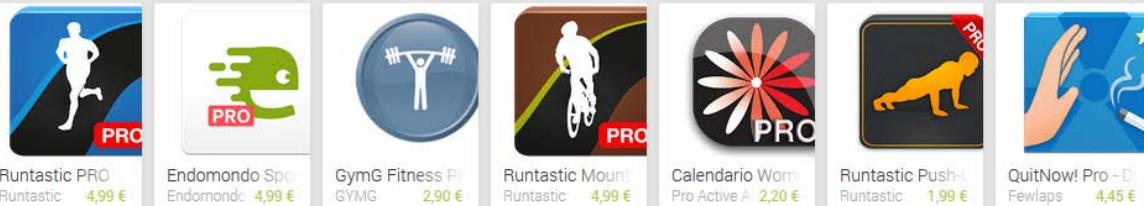


52% are comfortable in consulting with their physician through a video connection

¿Qué hay en Google Play?

Aplicaciones pagas más populares en la categoría Salud y bienestar

Ver más

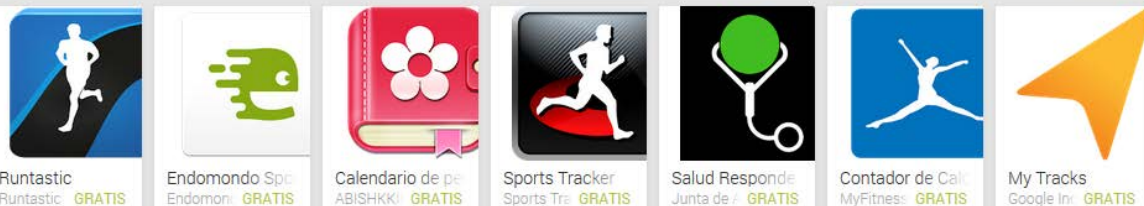


Salud & Bienestar



Aplicaciones gratis más populares en la categoría Salud y bienestar

Ver más

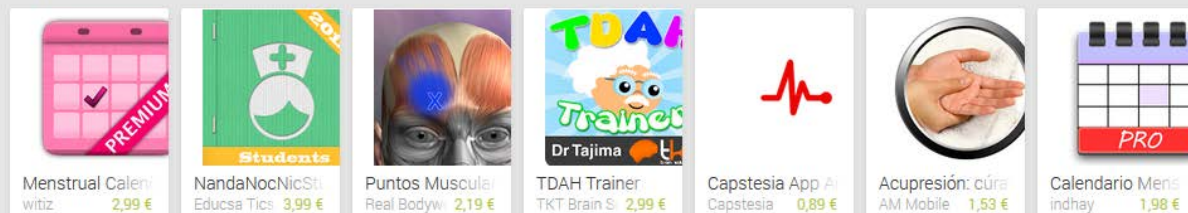


Medicina



Aplicaciones pagas más populares en la categoría Medicina

Ver más



Aplicaciones gratis más populares en la categoría Medicina

Ver más



¿Qué hay en App Store?

Salud & Forma Física

Top apps de pago: iPhone

De pago Gratis Top por ingresos

 1. Runtastic PRO GPS Running... Salud y forma fís... 4,99 €	 2. Todo-en-Uno Fitness: 1200... Salud y forma fís... 2,69 €	 3. Alarma Inteligente: ciclo... Salud y forma fís... 1,79 €	 4. 7 Min Workout - Tabla de 7... Salud y forma fís... 1,79 €	 5. iGyno Salud y forma fís... 0,89 €	 6. Monitor de Frecuencia... Salud y forma fís... 1,79 €	 7. Sleep Cycle alarm clock Salud y forma fís... 0,89 €	 8. Runtastic Mountain Bike... Salud y forma fís... 4,49 €	 9. Moves Salud y forma fís... 2,69 €	 10. Full Fitness: Entrenador de... Salud y forma fís... 1,79 €
 11. Contador de la Calorías Plus... Salud y forma fís... 2,69 €	 12. Yoga.com Studio: 300... Salud y forma fís... 4,49 €	 13. Endomondo Sports Tracker... Salud y forma fís... 4,49 €	 14. Runtastic Pedometer PRO ... Salud y forma fís... 1,99 €	 15. Fitness for women: workout... Salud y forma fís... 3,59 €	 16. Freeletics - functional high... Salud y forma fís... 4,99 €	 17. El gurú de yoga Salud y forma fís... 0,89 €	 18. buddhify 2 Salud y forma fís... 1,79 €	 19. iCulturismo Pro Salud y forma fís... 1,79 €	 20. Correr para Adelgazar Pro Salud y forma fís... 3,59 €

Top apps de pago: iPhone

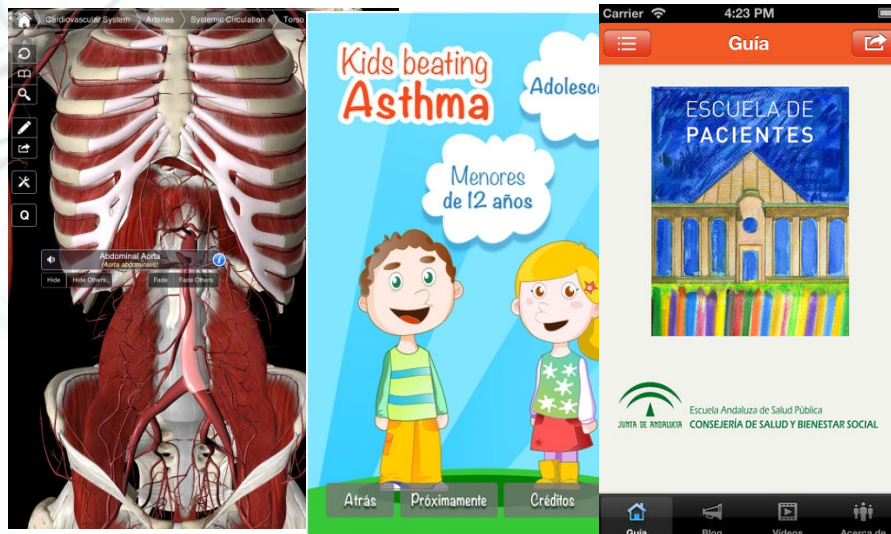
De pago Gratis Top por ingresos

 1. Cirugía Periodontal... Medicina 8,99 €	 2. iMediEcum FT Medicina 32,99 €	 3. mDoctor: Gestiona tus... Medicina 2,69 €	 4. NandaNocNicStud Medicina 4,49 €	 5. MedCalc (calculadora... Medicina 1,79 €	 6. Ayuda para el Sueño Profund... Medicina 1,79 €	 7. Puntos Desencadenant... Medicina 2,69 €	 8. Estrategias Terapéuticas en... Medicina 4,49 €	 9. FarmaInteraccione Medicina 3,59 €	 10. Duérmete niño - Método del... Medicina 2,69 €
 11. Pedi Safe - ICU, OR, ED... Medicina 0,89 €	 12. Manual de Fármacos... Medicina 2,69 €	 13. iBP Blood Pressure Medicina 0,89 €	 14. AI K. Polen Medicina 0,89 €	 15. Acupresión: cúrate a ti mismo Medicina 1,79 €	 16. MotionX 24/7: Sleep Cycle Alar... Medicina 0,89 €	 17. Miniatlas Anatomía Medicina 0,89 €	 18. iStethoscope Pro Medicina 0,89 €	 19. Vademecum Medicina 17,99 €	 20. Fiebre niños Plus Medicina 0,89 €

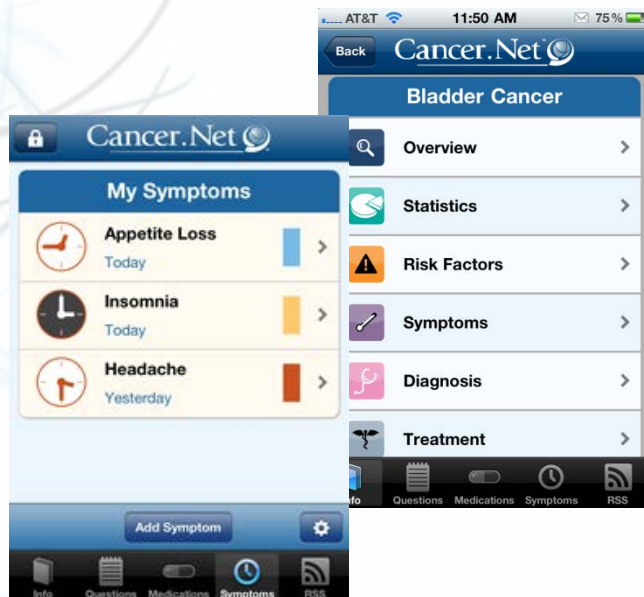
Medicina



Ejemplos de mHealth



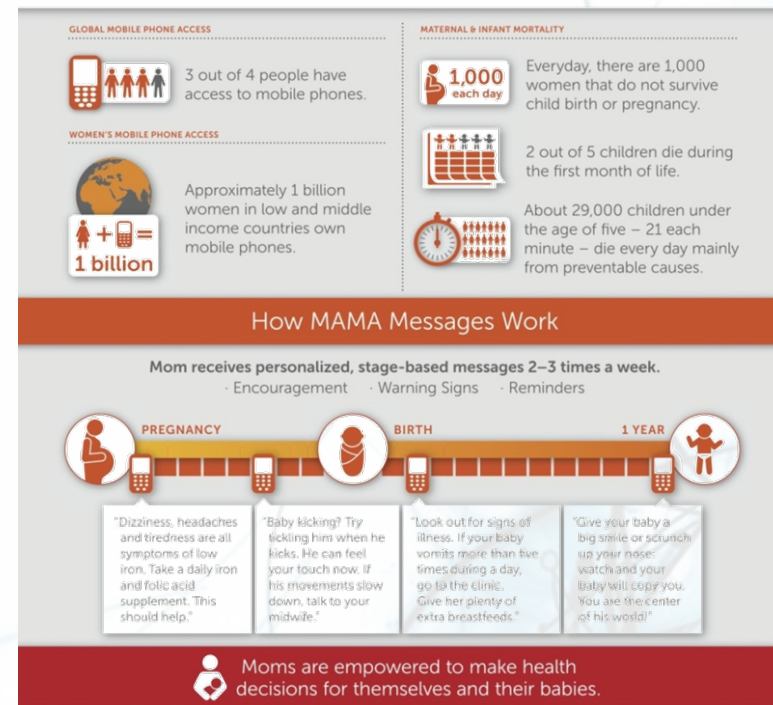
Ejemplos de mHealth



MAMA

Mobile Alliance for Maternal Action

Mobile Messages Put the Power of Health in Every MAMA's Hand



MAMA Mobile Alliance for Maternal Action

partners



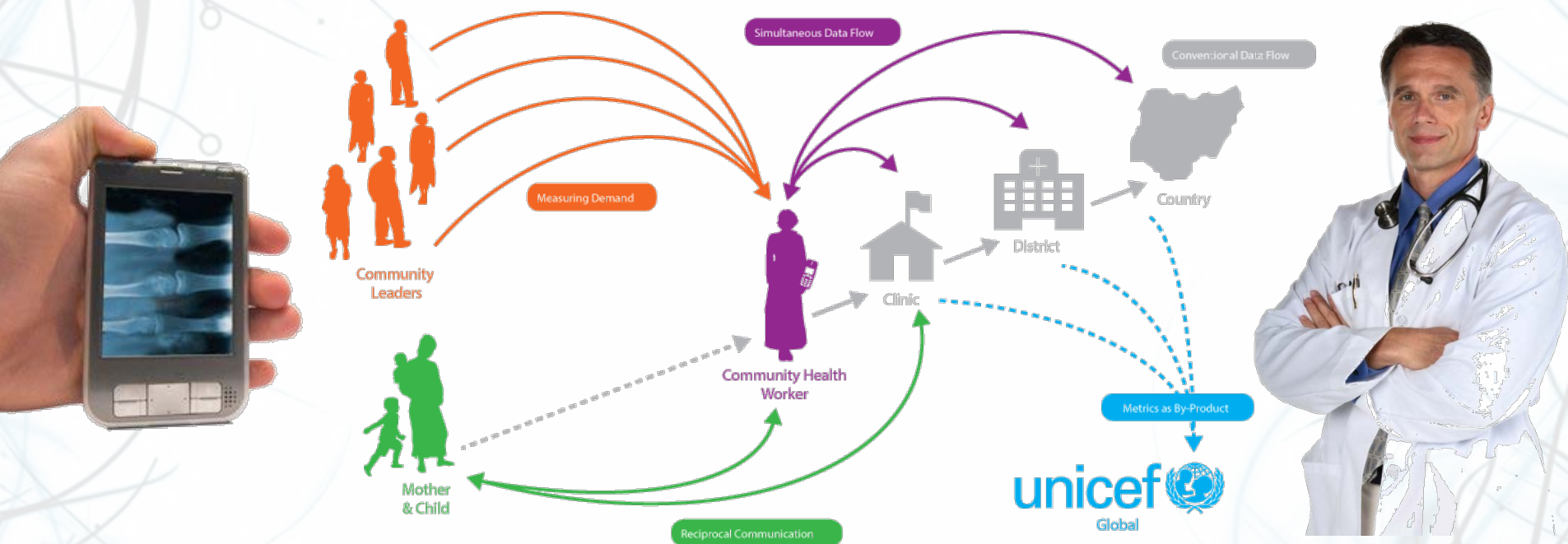
Bangladesh
South Africa
India

www.mobilemamaalliance.org

o Modelos de Gestión de Crónicos

o Medicina Personalizada & MBE

o Convergencia Socio-Sanitaria



- o Wearables
- o Self-Tracking
- o Gamificación
- o Redes Sociales
- o Coaching
- o AAL, Ageing Well
- o PHR

- o **mHealth / BYOD**
- o **Internet / Cloud**
- o SmartTV
- o SmartWatches
- o PC, Laptop

- o Historia Clínica Electrónica
- o PACS/RIS
- o Soporte a la Decisión
- o Sistemas de Información
- o BI / Big Data
- o Telemedicina / Teleasistencia
- o Interoperabilidad / Seguridad

Tomando en serio la mHealth

mHealth
New horizons for health through mobile technologies

Based on the findings of the second global survey on eHealth

Global Observatory for eHealth series - Volume 3

World Health Organization

Deloitte.

mHealth in an mWorld
How mobile technology is transforming health care

Deloitte Center for Health Solutions

Emerging mHealth: Paths for growth

A global research study about the opportunities and challenges of mobile health from the perspective of patients, payers and providers

pwc

www.pwc.com/mhealth

White Paper Series on mHealth and Aging

mHEALTH SOLUTIONS FOR IMPROVING MENTAL HEALTH AND ILLNESSES IN THE AGING PROCESS

ADA KWAM
mHealth Alliance, UN Foundation
October 2013

mHealth Alliance Pfizer

EEUU

FDA **FDA**
APPROVED

TGA Health Safety Regul
TGA APPROVED

Mobile health in 2024

1. Contact lenses
A new generation of contact lenses is being developed that can monitor blood sugar levels and detect early signs of diabetic retinopathy.
Fact About 300 million people are expected to have diabetes by 2030.

2. Fridge
The refrigerator of the future will be able to monitor the freshness of food and alert you when it's time to throw it away.
Fact Food waste costs the global economy \$240 billion annually.

3. Artificial pancreas
New artificial pancreas technology will allow people with diabetes to monitor their blood sugar levels and adjust insulin levels automatically.
Fact In 2013, 1.6 million people were diagnosed with diabetes.

4. Clothes
Smart fabrics in all clothes sense and respond to changes in temperature, humidity, and the possible onset of disease such as skin cancer.
Fact There are currently about 1.5 billion people in the world who are expected to be over 65 by 2030.

5. Thermometer patch
An electronic skin-on "thermometer" will be able to monitor temperature changes around the area of skin where it is placed, tracking heat flow through the skin. This indicates cardiovascular activity.
Fact The number of people who die from cardiovascular diseases, mainly from heart diseases and strokes, will increase to 29.3 million by 2030.

6. Shoes and socks
Shoes and socks that monitor foot pressure and detect when you are too sedentary and need to move. Different socks will be used for different activities.

NHS choices
health apps library

www.bupa.com/mhealth

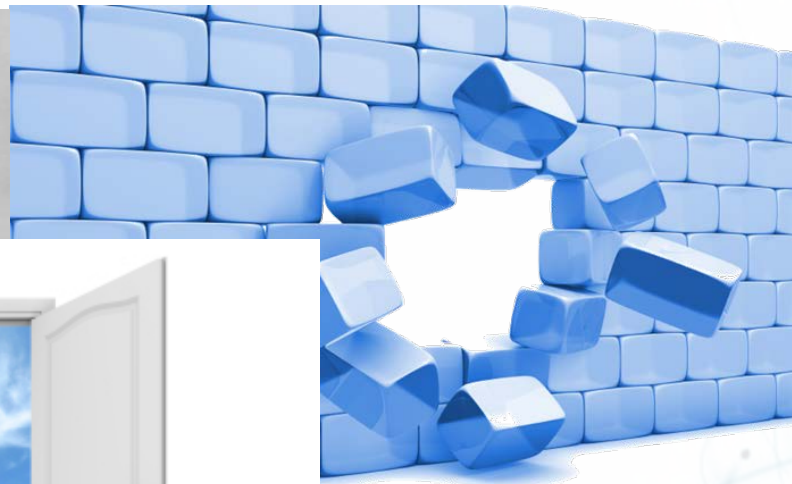
@bupa bupamhealth in bupa

European Directory of Health Apps 2012-2013
review by patient groups and empowered consumers

With foreword by Robert Madelin
European Commission Director General for Communications Networks, Content and Technology

Mobile partner: Partners: Publisher:

Reflexionando la mHealth



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- Blog: eHealth Wars

