

# mHealth: A powerful tool for access to health in developing countries



Source: The African Economy July 2013

Global Forum-Geneva November 2014  
Florence Gaudry-Perkins-  
International Director Global Government Sector  
Alcatel-Lucent

# The Mobile Revolution

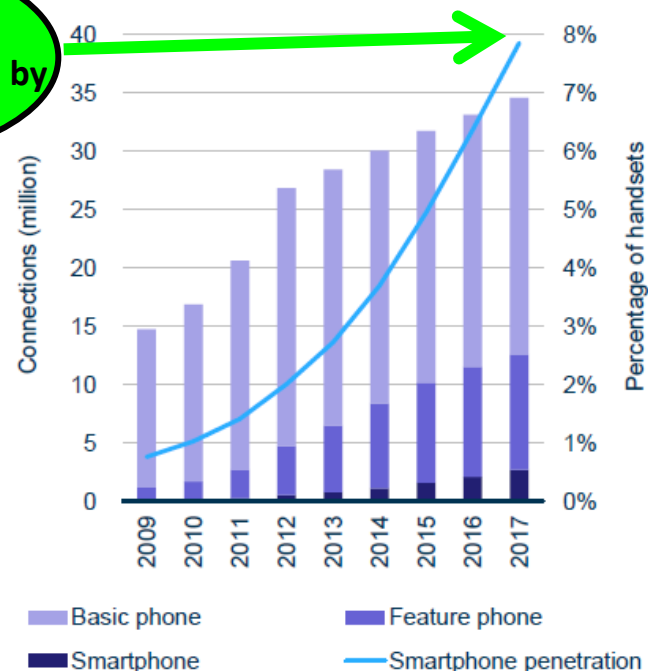
✓ In Senegal **90% of people who access internet do it from their mobiles.** In Ghana, it is 55%. In China, **83% of connections are done by Mobile.** In India, **7 out of 8 people connect via their mobiles.**

✓ Mobile penetration in Africa should reach 85% by 2015 whereas only 7% of households have a fixed internet connection (less than 1% in Sub-Saharan Africa)

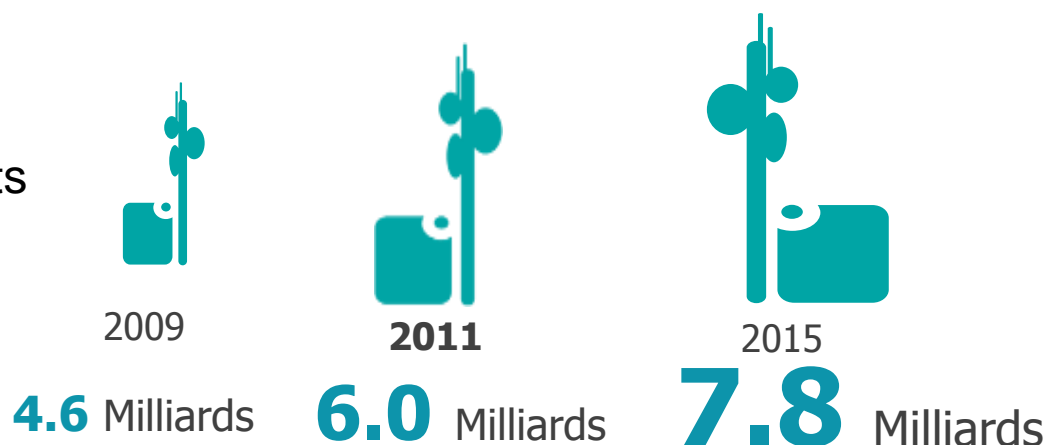
✓ **Smartphone growth= 43% per year since 2000 in Africa.** Forecasts are that 69% of mobiles will have internet access by end 2014.

**40% Smartphone penetration in Ghana by 2017**

Figure 18: Active mobile SIMs by device category, and smartphone penetration, Ghana, 2009–2017 [Source: Analysys Mason, 2013]



Source: Analysys Mason (2013)



# mHealth is a game changer

**Definition:** delivery of healthcare information and services via mobile devices

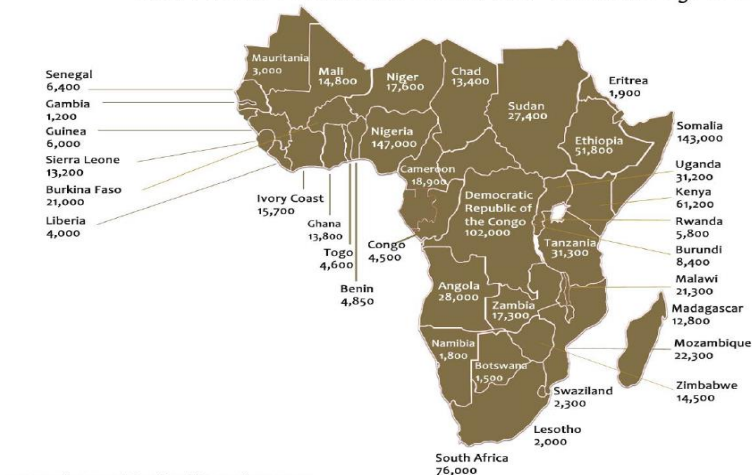
***"Medicine is about to go through its biggest shakeup in history"***

**Eric J. Topol, M.D.**, cardiologist, geneticist, and researcher

Author of "The Creative Destruction of Medicine: How the Digital Revolution Will Create Better Health Care"

**mHealth could save over 1 million lives just in Sub-Saharan Africa over the next 5 years**

Over the next 5 years, mHealth could potentially save more than 1 million lives in sub-Saharan Africa



Note: Map plots potential number of lives saved per country.  
Source: PricewaterhouseCoopers report, "Connected Life: The Impact of the Connected Life Over the Next Five Years"

**devex**  
Be Bold. Do It Well.

**In developed countries, Mobile Health solutions could save \$400 billion in 2017**

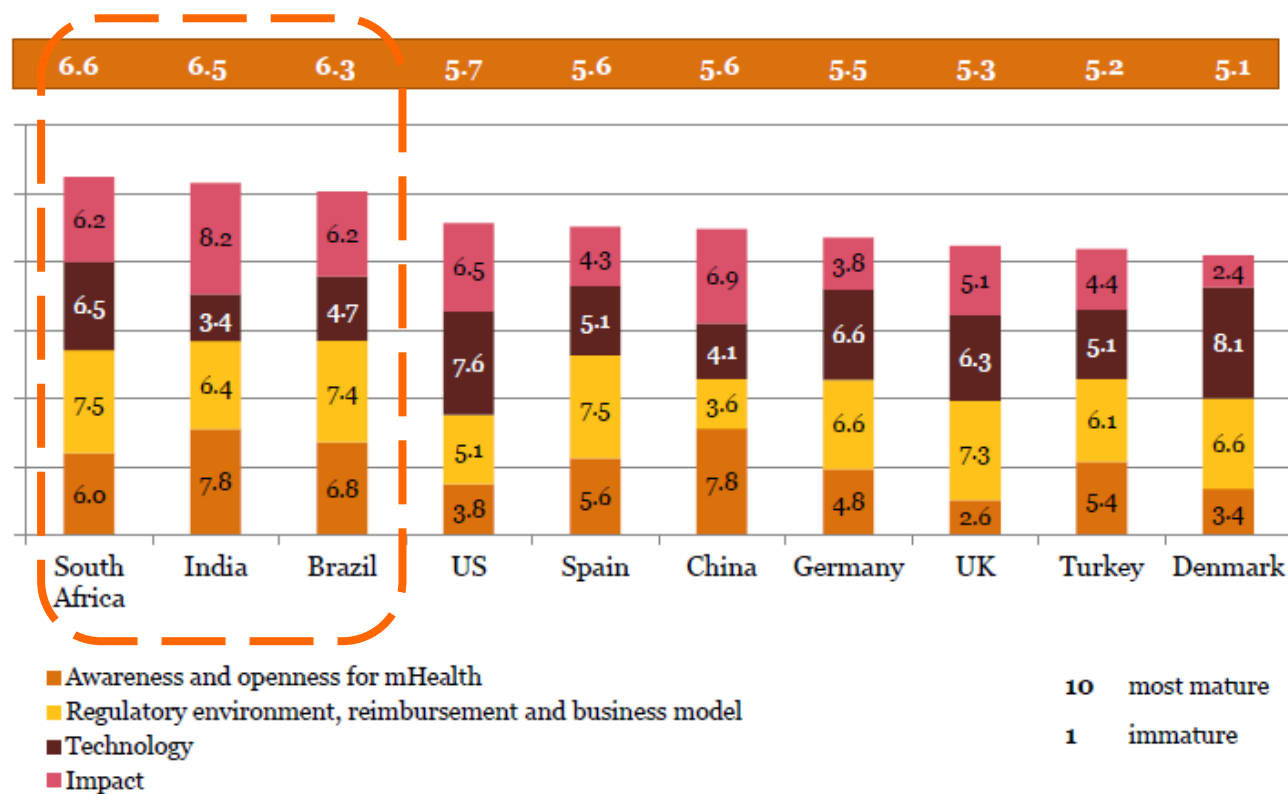


Source: PwC Feb 2013 « Connected Life the Impact of the Connected Life Over the Next Five Years

# Emerging markets will lead the way in mHealth

➔ mHealth is less disruptive to healthcare in emerging markets because for a majority, it is not a substitution to care but rather the only access

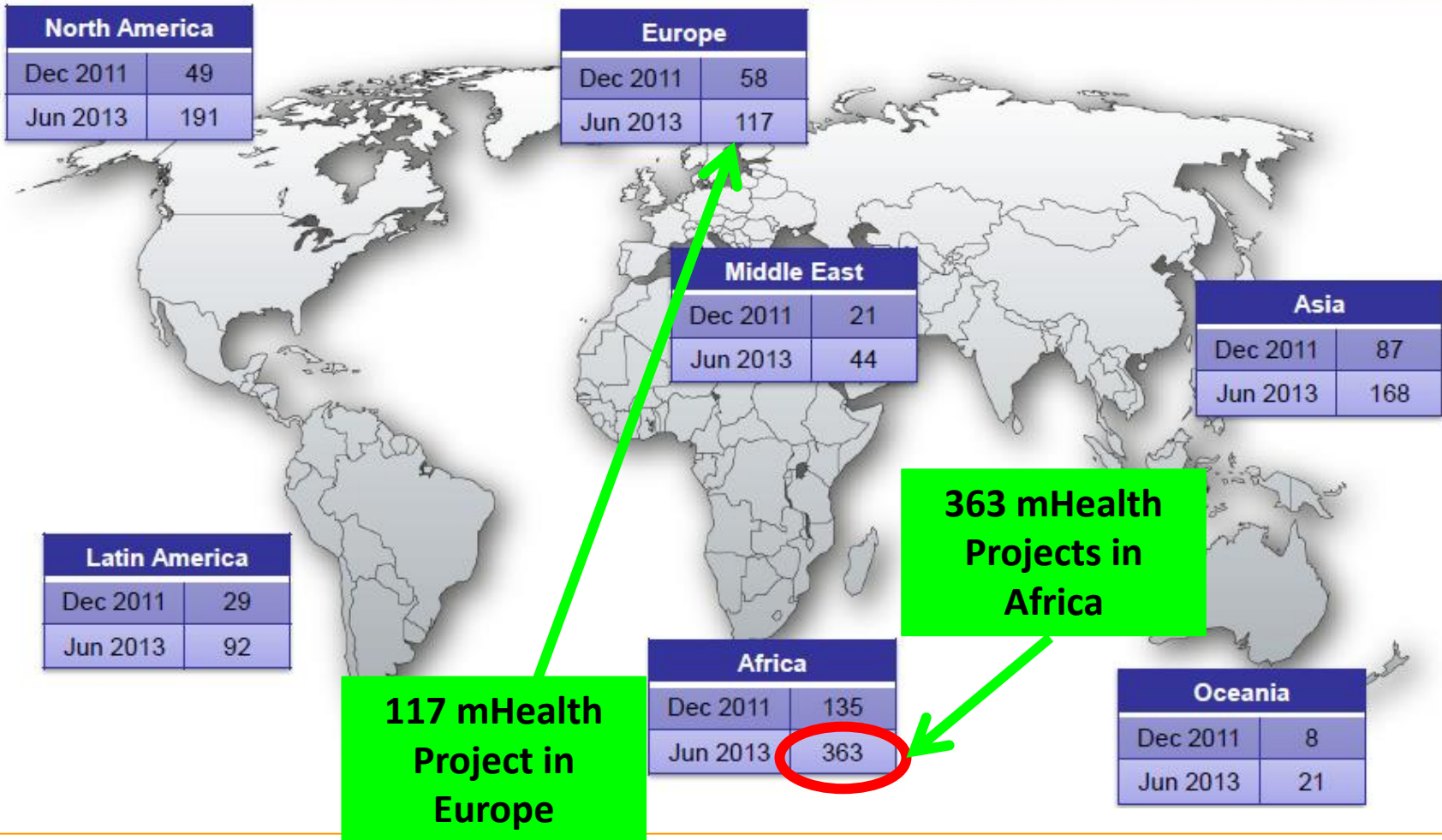
**61%** of surveyed patients in emerging markets are aware of term 'mobile health' (vs. 37% in developed markets)



Source: PWC (2012)

# mHealth projects tracked globally by GSMA in June 2013... but many stay at pilot stage

996 services tracked globally – up from 387 at end 2011





## Partner of the mDiabetes project in Senegal



World Health  
Organization



Alcatel-Lucent



✓ Part of the “**Be He@lthy Be Mobile**” ITU and WHO initiative

✓ Goal: use mobile technology and mHealth to fight diabetes

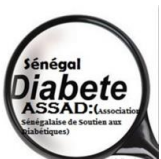
✓ SMS and applications will:

- **mAwareness:** Help diagnose patients (50% to 90% are undiagnosed in Africa)
- **mEducation:** educate diabetics to prevent the disease and better manage it (goal for ex to reduce amputations by 50% over the next 4 years)
- **mTraining:** Educate health workers
- **mTracking/mDiagnosis:** Develop tools for remote diagnosis (ex pictures of foot wounds sent by smart phones)

✓ launch of mRamadan pilot in Dakar June 16<sup>th</sup>. Official launch of project in November 2014 around International Diabetes Day. 4-year project to grow incrementally- Over 1 million SMS & Quizzes planned for next 10 months.

✓ Alcatel-Lucent contributes with : SaaS platform, Helps Ministry of Health in coordination and fostering links with the ICT ecosystem, links with funding institutions

✓ A number of other countries have expressed interest for this program as diabetes is a big challenge in developing and emerging countries (80% of deaths from diabetes are in lower income countries)



# Launch of mDiabetes pilot around Ramadan on June 16th 2014



**3500 Diabetic patients received 25 messages before and during Ramadan to prevent the problems due to fasting**

**« It is soon Ramadan! Consult you Doctor to verify if your glucose level is normal, ie. between 0,90 and 1, 20 g/l). More info on [www.mdiabete.gouv.sn](http://www.mdiabete.gouv.sn)**

**« Attention! If you are following an insulin treatment it is preferable to avoid fasting. [More info on www.mdiabet.gouv.sn](http://www.mdiabet.gouv.sn) »**

**« Re-adapt your medication doses and hours with your Doctor before starting your fast ».**

**« Drink approximately one liter of water in the morning before staring your day of fasting »**

**“Attention! If you have heart, kidney or eye complications, you should avoid fasting”.**



mDiabetes, mEbola, mAlerts, mTraining for  
health-workers, mDiagnostics, mAwareness,  
mHealthInsurance, mPayments

**We are connected  
Let us save lives !!**



*MobileMarketingWatch*

„THANK YOU FOR YOUR ATTENTION!

**Contact Alcatel-Lucent:**

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# ANNEX

## Alcatel-Lucent's involvement in mHealth and role in projects: A Social Innovation Strategy

# Digital Inclusion is a pillar of our strategy



Alcatel-Lucent is engaging with governments and stakeholders around the world on digital inclusion

- **Promoting Digital Inclusion & National Broadband Plans with governments & international organizations (Broadband Commission, UN-ITU, UNESCO, WHO, Development Banks, OECD, Affordable Internet Alliance etc)**
- **Our Innovation – The Shift Plan enabling our vision “of a connected world” and our eGovt solutions**
- **R&D Bell Labs research on digital inclusion and social/economic impact of Broadband**
- **Alcatel-Lucent Foundation and philanthropy focused on youth digital literacy**

**BROADBAND COMMISSION**  
FOR DIGITAL DEVELOPMENT



MEMBER OF  
**Dow Jones Sustainability Indices**  
In Collaboration with RobecoSAM



**ROBECOSAM**  
Sustainability Award  
Industry Leader 2014



**ROBECOSAM**  
Sustainability Award  
Gold Class 2014




DJSI Technology  
Industry Group Leader



# Our work in mHealth began with AMREF

The Challenge: Acute shortage of Health workers in Africa as the region requires **an additional 2.4 million nurses and over 1 million Community Health Workers.**

|   | <u>Classroom</u>   | <u>E-Learning</u>   | <u>M-Learning</u>  |
|---|--|---|--|
|  <p><i>AMREF (also known as "the Flying Doctors") has over 54 years' experience in health development and is now one of the continent's leading health development and research organisations.</i></p> | AMREF used to train roughly <b>100 Nurses/year</b> in Kenya through classroom. | AMREF increased in a short-time its reach to <b>1,300 Nurses/year</b> in Kenya through eLearning. | AMREF estimates that mLearning would reach <b>40 times more</b> students as compared to classroom. |

||| →  
**X13**

||| →  
**X40**

# Creating Shared Value

- Using the company's core skills and products to develop innovative services aimed to solve a social need while driving direct or indirect revenues.
- These projects most often involve partnering with NGOs, governments, international organizations, foundations and development banks or other donors.



**mLearning for Health and mHealth enable better access to health and education in developing and emerging countries via mobile devices, making it a natural path to explore for ICT and health companies .**

# To successfully develop mHealth and mEducation projects, ALU has...

...built relations with development bank, donors, international organizations



... developed a solid and relevant mHealth and mLearning ecosystem



... rely on a scalable technologic platform





# In the past few years Alcatel-Lucent has achieved a thought-leadership position in the mHealth and mLearning for health space

*"The Mobile Learning event at Alcatel Lucent's booth in Barcelona clearly demystified any doubts anyone had about the commercial potential of mLearning."* Sonia Jorge, Dr Regulation and Public Policy-Pyramid Research



GSMA Mobile World Congress 2013  
Wednesday, February 27th- Alcatel-Lucent Booth – Hall 3B 114  
5:30 pm- 7:00 pm followed by Cocktail Reception and Launch of the Broadband Commission Report on Education  
**Mobile Learning: Moving Beyond CSR. How operators can drive revenue and social impact through value added services.**



# The role of Alcatel-Lucent for mHealth



- We can **help aggregate operators** around mHealth projects across the world as well as establish and manage links with the ICT eco-system (data centers, mobile devices, cloud, applications, Ministries of Telecom and regulators, ICT organizations etc)
- We have a **strong links in many international organizations and development banks** which can help support the projects
- We have constructed **solid relationships with the mHealth and mLearning eco-system** developed over the past 4 years
- We can provide **robust, industrial platform and solutions for mobile applications (SaaS) and make the solution complete for governments via its eGovernment Distributed Cloud solution**
- We can work with partners on **financially sustainable mHealth models** based on the new concept of shared value (**business modeling**)
- We are **present in over 100 countries** and can help cross-fertilize projects across countries and regions

# The mHealth Service Chain & mBox

