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# *Emerging mHealth: Paths for growth*

June 2012

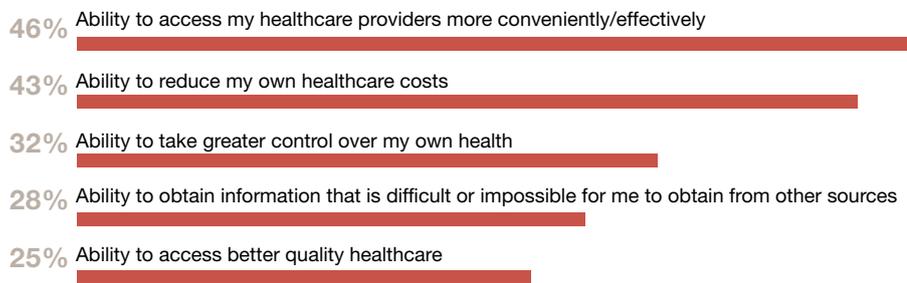


[www.pwc.com/mhealth](http://www.pwc.com/mhealth)

Mobile healthcare (mHealth) is “the biggest technology breakthrough of our time [being used] to address our greatest national challenge”, said US health and human services secretary, Kathleen Sebelius, in her keynote address at the 2011 annual mHealth Summit in the Washington, DC area. Worldwide, the technology and its promise have moved up the healthcare agenda.

**Chart 1: Patients will adopt mHealth if it improves access, lowers cost and increases control**

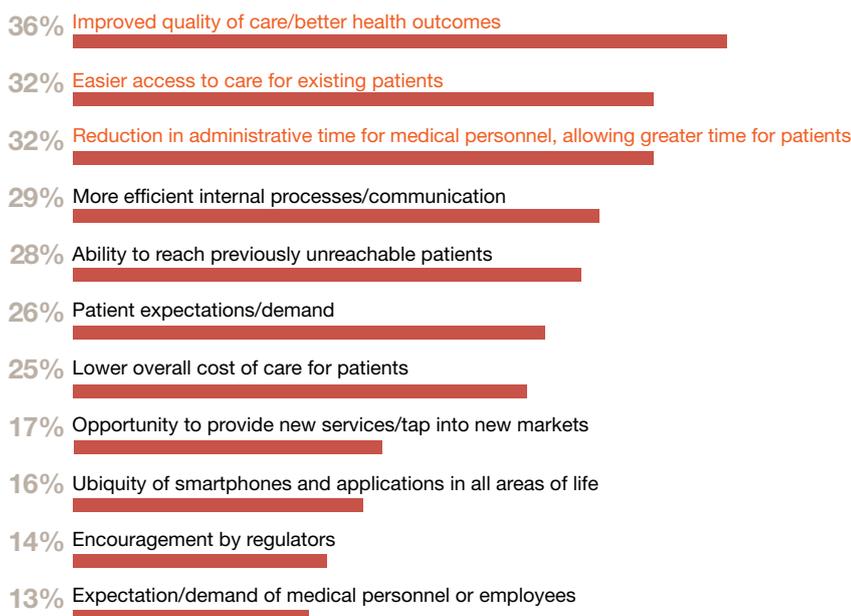
*Top drivers for patients to consider beginning to use or increasing use of mHealth applications/services*



Source: Economist Intelligence Unit, 2012

**Chart 2: Search for quality and efficiency are top incentives for doctors to adopt mHealth**

*What would spur doctor adoption of mHealth*



Source: Economist Intelligence Unit, 2012

The interest is understandable. Increasingly ubiquitous and powerful mobile technology holds the potential to address long-standing issues in healthcare provision. However, such effervescence in a field with few proven business models suggests that, yet again, technology-driven hype may lead to expensive failures.

This Economist Intelligence Unit report, commissioned by PwC, examines the current state and potential of mHealth in developed and emerging markets, the ongoing barriers to its adoption and the implications for companies in the field.

**Key findings**

**Expectations are high for mHealth.** Roughly one-half of patients surveyed for this report predict that mHealth will improve the convenience, cost and quality of their healthcare in the next three years (see “About the research”). Meanwhile, six in ten doctors and payers believe that its widespread adoption in their countries is inevitable in the near future. Yet most experts interviewed for this study, while also convinced that mHealth will eventually become an important part of care provision, expect that adoption will take time.

**Healthcare’s strong resistance to change will slow adoption of innovative mHealth.** New technology is not enough. Widespread adoption of mHealth will require changes in behaviour of actors who are trying to protect their interests. The challenge will be even greater for innovators because the improvements that mHealth can bring—such as patient-centred care and a greater focus on prevention—will involve disruption of how healthcare is provided. To succeed, innovators must manoeuvre through culturally conservative, highly regulated and fragmented yet often monopolistic systems that often provide contradictory incentives.

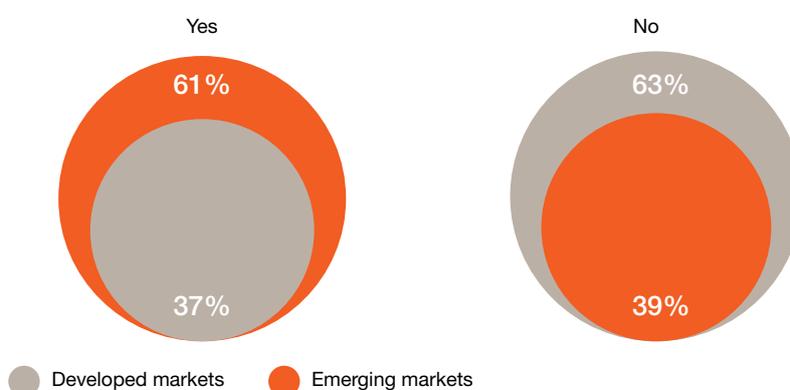
**The diversity of interests at play makes an evolving landscape even more complex.** Patients want more convenient provision of healthcare, but they also want greater control (see chart 1). For doctors, mHealth can help provide better patient care and ease their administrative headaches (see chart 2), but they are likely to resist the loss of power implicit in greater patient control. Payers already display interest in mHealth, and the economic pressure for more patient-centred, preventive care is likely to drive them further towards the patient's viewpoint.

**Emerging markets are the trail-blazers in mHealth.** Patients in these markets are much more likely to use mHealth applications or services than those in developed countries (see chart 3). Similarly, more emerging-market doctors offer mHealth services than colleagues in developed countries, and more payers cover these costs. The ability of these countries to leap ahead lies in the paucity of existing healthcare: there is greater demand for change and, just as important, there are fewer entrenched interests to impede the adoption of new approaches.

**Solutions, not technology, are the key to success.** Widespread mHealth adoption requires services and products that appeal to current payers because patients, highly sensitive to price, will provide little income. Consumers' sense of entitlement with regard to health-care aggravates this price sensitivity. Accordingly, vendors must concentrate on solving payers' problems. Technology is an essential, but not sufficient, tool in this endeavour.

**Chart 3: Patients are more aware of mHealth in emerging markets**

*% of patients who are familiar with the terms "mobile health" or "mHealth"*



Source: Economist Intelligence Unit, 2012

#### **PwC perspective: What this means for your business**

The growing pervasiveness of technology is enabling the emergence of a new, more patient-centric healthcare value chain. As a result, conventional business models, which typically place consumers at the periphery, may soon no longer apply.

To lead, all stakeholders—physicians, hospitals, health insurers, pharmaceuticals, medical device companies and government—will likely shift their practices toward patient/consumer models that will focus on clinical outcomes, value, and patient satisfaction.

One needs to look no further than other industries (e.g., media, retail and travel/tourism) that provide value-add online services—many of which are free of charge—in order to generate a competitive advantage. As in these other industries, business models that will likely get the most traction will be based on payment schemes that leverage retailers, product companies and other business partners to absorb any additional costs with minimal reliance on consumer payments.

#### **PwC perspective: Ingredients for successful mHealth models**

PwC research has found that mHealth solutions have begun to embrace the following six principles:

**Interoperability** – interoperable with sensors and other mobile/non-mobile devices to share vast amounts of data with other applications, such as electronic health records and existing healthcare plans.

**Integration** – integrated into existing activities and workflows of providers and patients to provide the support needed for new behaviours.

**Intelligence** – offer problem-solving ability to provide real-time, qualitative solutions based on existing data in order to realize productivity gains.

**Socialisation** – act as a hub by sharing information across a broad community to provide support, coaching, recommendations and other forms of assistance.

**Outcomes** – provide a return on investment in terms of cost, access and quality of care based on healthcare objectives.

**Engagement** – enable patient involvement and the provision of ubiquitous and instant feedback in order to realize new behaviours and/or sustain desired performance.

## About the research

In developing this report, commissioned by PwC, the Economist Intelligence Unit conducted two surveys in ten countries: Brazil, China, Denmark, Germany, India, South Africa, Spain, Turkey, the UK and the US. The first survey asked 1,027 patients—with a broad distribution of economic backgrounds, ages, levels of education and states of health—about their opinions on various aspects of mHealth. The second survey queried 433 doctors and 345 executives from payer organisations. The respondents in the doctor group were drawn from the public sector (46%) and the private sector (49%) or were independent physicians (5%). The group is more urban (67%) than suburban (24%) or rural (10%), with 45% practicing in primary care, 45% in secondary care and 10% in tertiary care. The executives from payer organisations responding to the survey are roughly evenly divided between the public and the private sector, with 55% C-suite or above.

In addition, the research included extensive desk research and 20 in-depth interviews of senior executives from healthcare providers and payers, technology and telecommunications companies and industry organisations, as well as leading experts from academia, think-tanks and non-governmental organisations.

Finally, the EIU commissioned internal reports on mHealth for nine of the countries covered by the survey from its country experts.

## About PwC

In addition to the EIU's analysis, PwC provided its own commentary on best practices and strategic considerations for companies active in the mHealth arena noted in the report as "PwC Perspectives". We hope that these insights, coupled with the survey findings and interviews summarised in the pages to come, are useful in helping the stakeholders in the industry understand, plan and participate in this inevitable yet exciting new future.

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NY-15-0049