Finding the value in digital

The value of a future connected healthcare system may be self-evident, but finding the value in it for pharma is more difficult to quantify.

WITH THE SHIFT in healthcare demand from acute to chronic, the worst place to tackle this disease burden is in the expensive hospital setting. Far better, it is argued, to allow patients to become active players in the management of their own conditions. Certainly all available evidence suggests we'd all be better off with integrated homecare systems enabled by information and communications technology.

ICT-assisted homecare is just one segment of a broad, diverse and connected healthcare system that in future may include medicines as a core component – with drug adherence managed remotely – and the industry engaging in 'pill-plus' strategies that provide measurable value and outcomes. It is not difficult to see the theoretical benefits of this new approach to healthcare, but the actual value is more difficult to quantify and – for pharma in particular – to extract.

With homecare, the benefit may appear self-evident: not just in terms of keeping patients out of hospital but generating mutually beneficial data, streamlining support systems and encouraging self-management strategies. As things stand, though, there is relatively little hard evidence of return on investment to support this new thinking, although EU-backed telemedicine and integrated homecare...
projects (e.g., SmartCare) do include value measures such as health technology assessments.

Nevertheless, connected health is fast gaining proponents. What it aims to achieve, explains Natasha Gomer, international account director for PharmiWeb Solutions, is a transformation of care through better diagnosis, big data and personalisation, together with a shift towards consumer-directed healthcare. This is a world of predictive medicine, both in R&D and the marketplace (biomarkers, imaging, diagnostics, patient segmentation, etc) that extends and expands into personalised care (monitoring, patient adherence, behaviour modification).

The principal drivers in this area, she says, are an internet explosion in which 80% of users go online for health information, and a mobile healthcare market set to grow by nearly 22% between 2013 and 2014. Indeed, there are already more than 10,000 mobile health apps, and 80% of physicians say they would recommend one of these apps to a patient.

This all adds up to a US healthcare IT market expected to grow by more than 30% to US$40 billion in 2014, while the global telemedicine market is forecast to expand from US$11.6 billion in 2011 to US$27.3 billion by 2016.

Inevitably, mobile devices and smartphones are taking a front seat in this digital revolution. Indeed, it is not just the enormous growth in the availability and use of mobile devices but the context in which these are used. According to Geoff McCleary, vice president of Digitas Health USA, top-line data from a US survey of 2,000 consumers on how they access disease-related content online, indicates that active mobile health users are not looking for information on newly diagnosed conditions; 60% of those polled were diagnosed more than three years previously. Interestingly too, more than a third do not receive a prescription, while nearly 60% of those who were might switch this year.

It also found that more than half the consumers had condition-related apps on their phone, and there was significant mobile health use before and after the consultation, in the waiting room and the parking lot. Indeed, 40% of those surveyed said they have had a conversation with a doctor using a mobile.

And mobile use is not just about what is typed into a search box, emphasises Hugh Dickerson, senior industry head, healthcare at Google. Reading the signals means understanding cross-platform behaviour; knowing which device is used, by whom, where, and at what time. Patients, carers and healthcare professionals are constantly connected all day, he points out.

**Big openings for pharma**

All this activity is revealing substantial channels of opportunity for pharma. Big data, digital networks, social media insights, electronic patient registries and crowdsourcing are already opening up the pharmaceutical R&D model to collaboration and multidisciplinary input, while promising better informed, better targeted, more patient-oriented medicines whose efficacy and safety can be tracked and validated in real-world use.

There is even a place for gaming in this open-innovation universe. Cancer Research UK is planning to launch a mobile game in October to process the “deluge” of genomic data it holds in virtual libraries. The game was designed with the help of businesses such as Google, Facebook and Amazon, which were invited to a ‘hack-a-thon’ earlier this year with the challenge of gamifying the data in a way that would allow them to be analysed while the game itself was being played.

Industry is also using digital channels and mobile devices to enrich its relations with healthcare professionals, while making tentative steps towards a social media strategy. Doctors and pharmacists are...
tapping into these channels and devices too, supplementing and enhancing their interactions with patients in ways that belie a traditionally paternalistic dialogue.

The challenge for marketers, however, is to work out how mobile best fits into a multi-device journey and adds value that increases traffic online and follows through to other devices or to activity offline.

What is apparent, however, is that mobiles are now where the internet was 15 years ago, but mobile healthcare delivery is still in its infancy. There is a real pull in the sector between what the patient wants and bricks-and-mortar companies with a single channel of delivery, says Mindy Daeschner, co-founder and director of psHEALTH. Despite all these incentives, there remains a fundamental mismatch between the headlong pace of digital innovation and the heavily regulated, risk-averse environment, with its long-haul R&D cycles, in which pharma operates.

While there is already plenty of interplay across areas such as sport/performance, lifestyle management, and disease management, people also expect these devices to cross over into medical, but this may require a change in legal status, says Dr Robert Milner, senior consultant at Cambridge Consultants. The way a platform is described and the intended uses of the data are a critical distinction here: a fitness tool for a diabetic would “raise an eyebrow” because it might take it into the realm of a medical device, Brian Kelly, regulatory lawyer at Covington & Burling, warns. Regulators have a “presumption mentality” that will fall back on the precautionary principle if unsure.

Beyond the pill
For pharma, it seems, the real value is likely to reside in ‘beyond-the-pill’ strategies. Drug adherence is one area in which more interactive, immersive relationships through multiple channels and devices can directly address the problem without any overt promotion. That might be anything from a text or email prompt to a smart drug triggering a reminder at the point of use, or a game that encourages treatment adherence.

The Monster Manor diabetes management game for children, for example, offers rewards while simultaneously collecting health data that can be reviewed by parents. Another tactic, cited by Daeschner, is an adherence solution designed for patients who take eight different medications a day that is managed entirely by mobile. The discontinuation rate over a six-month period was only 22%, while 73% of users said the programme helped them stick to their treatment plan. Data on medication volumes, discontinuation, adverse drug reactions, etc, were generated as part of the initiative.

Disease management, using apps, online information, health sensors and a comprehensive dashboard of personal health data to help patients stay on top of their condition, stay healthy or identify early warning signs, is another clear opportunity for the industry.

“Beyond digital technology is ‘consumerising’ and ‘individualising’ health relationships can also be productively applied by pharmaceutical sales representatives. As Morten Hjelmsø, CEO of Agnitio, notes, no other industry sees its clients as much as pharma, yet that valuable
facetime is not used optimally – particularly now that reduced access to doctors means representatives have to squeeze more value out of the interaction.

In the digital environment of tailored products and services on an industrial scale, old-school “shout” marketing no longer works, he says. Since pharma already has a personal relationship with the doctor, it should try to profile these customers and work out where they are on the adoption ladder – learn and get “into the loop”.

This calls for “continued communication” through a whole range of channels, such as face-to-face contact, microsites or webinars, turning the sales representatives from a ‘push’ to a ‘pull’ agent. Representatives can micro-segment their customers by creating or individual channels for doctors, such as personalised websites or support apps for patients.

Rewriting healthcare dynamics

And it is not just the Western world that is rewriting healthcare dynamics through mobile usage. In Africa, where mobile phone penetration has already reached 52%, digital technology is opening up new channels of interaction with huge populations, notes Benjamin Sarda, head of marketing for Orange Healthcare. That may be anything from distributing healthcare information to data collection, communicating with healthcare professionals or handling third-party payments. These countries are leapfrogging to a mobile-based infrastructure from virtually no healthcare infrastructure at all.

But that is a very different proposition from the consumerisation of healthcare relationships in markets where there is a well-established structure of state provision. There, demonstrating value to healthcare systems in which pharma remains heavily invested is going to be a tougher call.

Per capita spending on pharmaceuticals across the EU25 countries already varies widely, and investment in homecare ICT is likely to follow a similar pattern, believes Dr Paolo Da Col, senior consultant with Health Information Management. Nevertheless, the ICT-enabled homecare pilots underway in Europe already show the question is no longer whether to go digital, but how to do it successfully.

The growing involvement of private healthcare will inevitably raise concerns about a shift towards top-up insurance for specialised services. And this begs another question: for the new virtual, networked generation, will mobile health prove a force for healthcare unity or division?

This article is based on presentations given recently at PharmiWeb Solutions Digital Breakfast, and the ThinkDigital13 forum organised by Digitas Health.