



eVisits: the 21st century housecall

Deloitte predicts that in 2014, there will be 100 million eVisits globally, potentially saving over \$5 billion when compared to the cost of in-person doctor visits⁸⁵ and representing growth of 400 percent from 2012 levels. eVisit usage will likely be greatest in North America, where there could be up to 75 million eVisits in 2014, representing 25 percent of the addressable market: there are 600 million annual visits to general practitioner offices in the US and Canada, and about half are for problems that could also be solved by an eVisit⁸⁶.

In some form or another, there have been alternatives to in person doctor visits for decades. There were new technologies like the telephone in the 1920s, satellite calls in the 1970s for remote communities, or connected kiosks as part of the Minitel network in 1991⁸⁷. All offered the potential for cost savings and mass adoption. But despite 20 years of predictions that eVisits were about to become common, adoption remained low until recently.

In contrast, 2014 should see an inflection point in their adoption, primarily due to changes in technology and telecommunications infrastructure and also due to continued pressure to reduce medical costs and improve care. Pervasive PC deployment, ubiquitous fixed Internet, greater comfort using technology among older patients, who make up the bulk of doctor visits, and the mass adoption of mobile devices combining with available and affordable wireless broadband make eVisits, and viable in ways that were not possible even four years ago. Advances in analytics offer much greater ability to automate the back office elements of eVisits, and pervasive fiber optic networks to hospitals and clinics facilitate the more data intense applications of eVisits, such as the transmission of brain scan images for tele-stroke applications.

A common misperception of an eVisit is that it is a video conference where the patient sits down in front of a PC, connects with a doctor, and then sticks out a tongue and says “ahhhh” to the web camera. This type of eVisit represents only a small part of the market and offers only minor cost savings compared to an in-person visit⁸⁸. The vast majority of eVisits are likely to be more functional and focus on capturing patient information through forms, questionnaires and photos, rather than through direct interaction with a physician. For example, patients with symptoms of certain illnesses such as sinusitis, strep throat, allergies, bladder infection or acne would complete an online form and then receive a diagnosis and, if required, a prescription⁸⁹.

In the US in 2010 there were 1.2 billion patient visits to physician offices, emergency departments and hospitals (for outpatient services), equivalent to 3.3 visits per US citizen. Just over half of those visits were to primary care doctors. Prescription refill, coughs, stomach pain, sore throat, earache and skin rash accounted for over 110 million of the office visits: all categories that could be screened or resolved via an eVisit⁹⁰.

The total addressable market for eVisits in developed countries is estimated to be about \$50-60 billion, calculated as follows. In 2010, EU citizens averaged 6.3 doctor consultations, per capita⁹¹. Assuming EU habits are similar to North America; about half of those would be for primary care physicians, suggesting that roughly three to four visits per year can be reasonably assumed for a developed world country. That group of countries has about one billion people in it, which means the addressable market in the developed world for doctor visits is approximately 3.5 billion visits annually. The cost of a doctor visit varies considerably from \$11 in Spain to \$40 in Germany and \$89 in the US⁹². If we assume a \$50 developed world average, the dollar value of all in-person doctor visits is \$175 billion per year. Not all in-person primary physician consults are appropriately handled by eVisit solutions, but even if only 30-40 percent are well suited for eVisits, that still implies a \$50-60 billion total addressable market.

⁸⁵ suming the cost of an eVisit is more than \$50 less than an in-person visit. This is true in the US and Canada, but savings are likely to lower in other markets. Given that North America will be the bulk of the market in 2014, the \$5 billion is a reasonable first approximation of likely savings.

⁸⁶ North American visit numbers are from: Ambulatory Care Use and Physician Visits, Centers for Disease Control and Prevention, 30 May 2013: <http://www.cdc.gov/nchs/fastats/docvisit.htm>, and the percentage of doctor visits addressable by eVisit technology and 2012 market size are Deloitte estimates.

⁸⁷ Telematic Transmission of Computerized Blood Glucose Profiles for IDDM Patients, American Diabetes Association, 19 April 1990: <http://care.diabetesjournals.org/content/14/2/130>

⁸⁸ Video conference eVisits do exist, especially for applications like tele-dermatology and tele-stroke. But the savings tend to be minimal: they still require doctors to set aside blocks of time to video-chat with patients, there are still no shows, dedicated hardware and secure network to maintain patient privacy is required at both ends. Basically, aside from the time the doctor spends walking from waiting room to waiting room, the teleconference form of eVisits isn't that much different from an in-person visit. That the teleconference form represents about one tenth of eVisits total is a Deloitte estimate based on industry experience.

⁸⁹ Frequently Asked Questions, Zipnosis, 2013: <https://zipnosis.com/faq>

⁹⁰ Ambulatory Care Use and Physician Visits, Centers for Disease Control and Prevention, 30 May 2013: <http://www.cdc.gov/nchs/fastats/docvisit.htm>

⁹¹ Doctors consultations per capita, 2010 and change between 2000 and 2010, OECD, 2012: <http://www.oecd-ilibrary.org/site/9789264183896-en/03/02/g3-02-01.html?contentType=gitemid=/content/chapter/9789264183896-29-en&containerItemid=/content/serial/230560888&accessItemid=/content/book/9789264183896-en&mimeType=text/html>

⁹² A \$9 doctor's visit? Report charts how U.S. cost of care compares, The Advisory Board Company, 6 March 2012: <http://www.advisory.com/Daily-Briefing/2012/03/06/costs-of-care>

eVisits are a subset of the telehealth market, which is estimated to be \$25 billion by 2015 and which also includes professional-to-professional consultations, remote monitoring, alerts/notifications, and some other smaller markets⁹³.

The business environment in 2014 is primed for significant growth in the volume and value of eVisits. Global healthcare best practices aim to decrease costs by focusing on prevention and early intervention to decrease the burden of illness, and by continuing to integrate information technology⁹⁴. Trends such as the increasing global physician shortage⁹⁵ and the increasing availability of health insurance for the formerly uninsured are also likely to drive increased interest in eVisit technology. eVisits enable less travel time and cost and increased convenience and faster treatment for patients, so demand should be strong. On the downside, the greater convenience of eVisits may cause the number of consultations to rise, possibly offsetting some of the savings that eVisits provide⁹⁶.

North America is likely to lead the predicted global increase in the use of eVisit services. Multiple US services are experiencing significant market growth, offering care that is as clinically effective as in-person visits while reducing costs⁹⁷⁻⁹⁸. Further, US technology providers are already working in partnership with governmental and insurance providers⁹⁹. Canada is also seeing rising use of eVisits at more than 50 percent annual growth¹⁰⁰, with wait times reduced by days for primary care and by 6-8 months for some highly specialized dermatology consultations conducted via eVisits¹⁰¹.

Outside of North America, eVisit adoption varies widely. The UK and Denmark both provide some services¹⁰². Penetration in Asia Pacific is limited; however, pilot programs are achieving success in Indonesia¹⁰³. One interesting early adopter is Kenya, where a serious physician shortage and accessibility challenges¹⁰⁴ have created a strong need for an alternative care delivery system. The Mashavu Networked Healthcare Solutions' pilot project has demonstrated that eVisits can be successfully deployed outside the developed world¹⁰⁵.

While complex diagnoses and treatments are likely to remain face-to-face encounters; basic diagnoses, prescription refills and even specialty services such as dermatology may routinely be done from a conveniently-located kiosk or the comfort and privacy of one's own home.

As eVisits are proven and adopted in the developed world, and as the necessary infrastructure is deployed in the developing world, they are likely to offer affordable primary medical and diagnostic care to very large populations that do not have access today. Although the initial benefit of eVisits may be saving billions of dollars, over time the greater good may come from saving tens of millions of lives.

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- 93 In 2012, Deloitte reported that the global telehealth market was likely to grow to \$22.9 billion by 2015, compared with \$9.9 billion in 2010. Based on advances over the past year, the forecast has increased. See: Primary Care: Working Differently. Telecare and telehealth – a game changer for health and social care, Deloitte Centre for Health Solutions, 2012. <http://www.deloitte.com/assets/Dcom-England/Local%20Assets/Documents/uk-Is-telehealth-telecare.pdf>
- 94 Current global environment is conducive to e-visits. See: Hype Cycle for Telemedicine, Gartner, July 2013. <http://my.gartner.com/portal/server>.
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Bottom line

Outside the health care field, the most obvious beneficiaries are the technology and telecommunications industries. As the market grows, they will see growing demand for data volumes, quality of service data, high speed broadband and machine-to-machine connectivity, on wireline and wireless networks. Device manufacturers are likely to benefit, and as mHealth (mobile health) accelerates in 2014 and beyond, there are likely to be new growth opportunities for devices, peripherals, and apps. One report that discusses the 66 percent CAGR in data growth between 2012-2017 identifies 'medical applications' as one of the key drivers of this traffic increase¹⁰⁶.

Public and private organizations should continue the push to reform policies that disallow payment to providers offering eVisits. Such payment reform has already begun in areas with mature telemedicine programs. Ontario, Canada recently added a public insurance payment code for physicians to bill for "eConsults"¹⁰⁷ and the Australian and French government health ministries changed funding rules to actively support and promote eVisits¹⁰⁸. From a private-sector perspective, US payers are showing interest in eVisit programs, particularly with the number of insured Americans increasing exponentially under health reforms. However, at the moment only 18 US states have passed laws that require or will require private payers to reimburse for telemedicine visits¹⁰⁹.

Educational, research-based, and non-governmental organizations have the ability to accelerate eVisit adoption by supporting pilot studies and conducting comprehensive evaluations¹¹⁰. North America's organizations dedicated to the advancement of telemedicine – Ontario Telemedicine Network and the American Telemedicine Association – will likely need to play a key role in publicizing eVisit potential using these avenues.

Governments with successful eVisit solutions will be in a position to share their insights about impacts, effective incentive structures and ways to combat legal and technical barriers to adoption. Denmark has offered eVisit services for years and is piloting several new variations, such as tele-psychiatry. These pilots will undergo large-scale testing in an effort to produce proven, established solutions that others can draw on to help justify their own eVisit services¹¹¹.

Physicians, hospitals and other healthcare providers should consider which investments they need to make in patient portals, electronic medical records, and security and privacy systems to benefit from all the efficiencies and improvements in patient care that eVisits promise to deliver. Technology providers should likewise model the burgeoning telemedicine ecosystem that eVisits are likely to accelerate, and then determine how and where their companies should participate in a future where patients themselves are part of the healthcare management solution, leveraging sensors, devices and communications systems to monitor treatments and health status.

Regardless of the institution implementing eVisit services, human resource training, familiarization with computer use and telemedicine, and overall organizational readiness are imperative to success. Support from governments and other partners (such as employers, who will benefit from reduced absenteeism for doctor visits) should include recommendations, public education on the benefits of eVisits, policy changes and financial allocations for implementation¹¹².

One critical step will be to communicate the many benefits of eVisits for physicians. Media coverage tends to focus on the benefits for patients and insurers/payers; however, for eVisits to take root, physicians will need to invest in improving their technology infrastructure and staff up for a potential flood of new online interactions. Although some physicians may view eVisits as impersonal and lacking in human interaction, others will see them as an opportunity to spend more time on more serious and complex cases, while improving quality and efficiency for simpler cases. Also, as long as liability for virtual diagnoses is handled properly, physicians will likely enjoy many other features of eVisits, including: the ability to share clinical data and information virtually with colleagues, the ability to help more patients in less time and across greater distances, and the potential for more flexible work arrangements.

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