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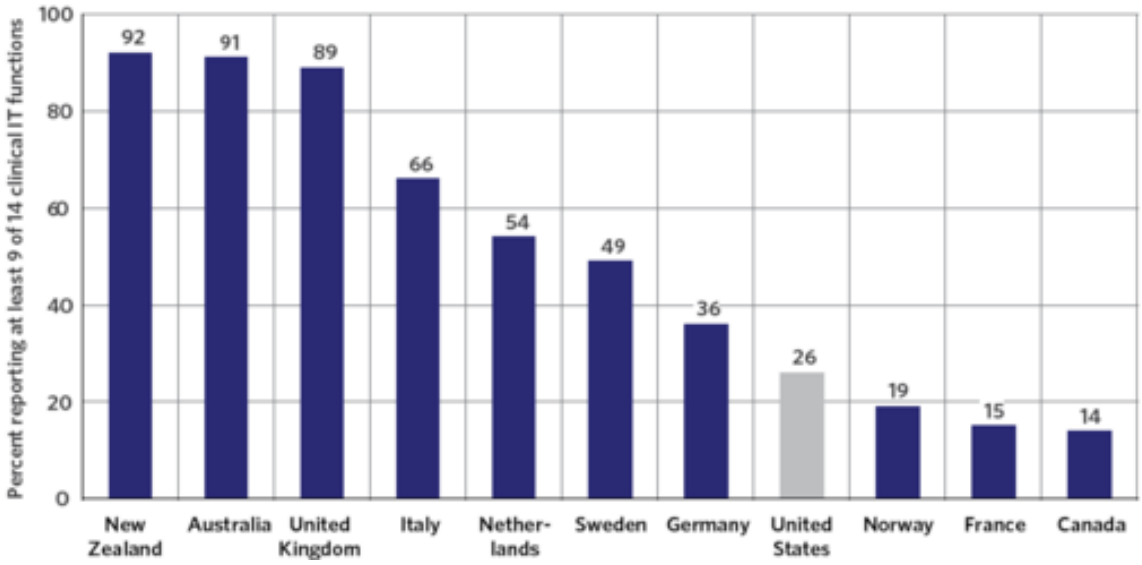
New FCC Broadband Plan Advocates e-Health Technologies

In response to a 2009 mandate from Congress, the FCC has released a new National Broadband Plan - including an entire chapter on e-health in its various manifestations. The plan puts forth a suite of recommendations to improve health care through technology: reducing barriers to electronic health record usage, incentivizing health IT adoption, promoting the creation of "converged communications and health care devices" (like health apps for smartphones), establishing data-sharing protocols for medical researchers, ensuring sufficient broadband connectivity to support all that electronic traffic, and passing legislation to ensure that patients have access to their own medical data and test results (in many cases, they're not "authorized" to get it).

Some of these recommendations are addressed to Congress, some to administrative agencies (HHS, FDA, CMS, FCC), and some to state governments (for example, the report suggests modernizing state regulations that pose barriers to health technology adoption). Cooperation between various government actors, the FCC argues, is necessary to help the US catch up to other nations, who are making more effective use of health technologies:

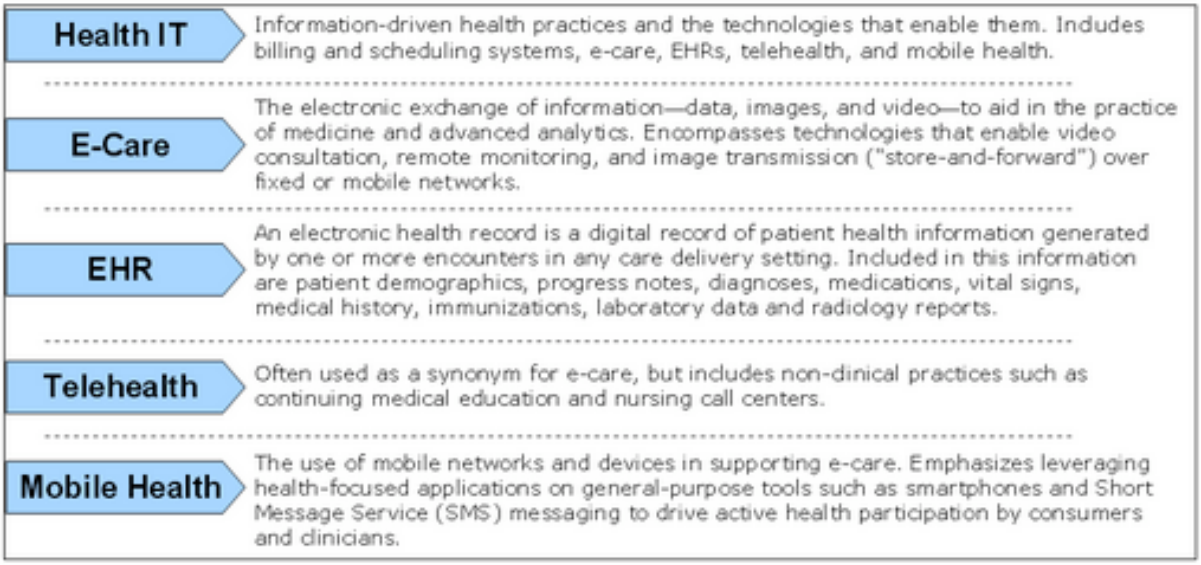


The United States ranks in the bottom half (out of 11 countries) on every metric used to measure adoption, including use of electronic medical records (10th), electronic prescribing (10th), electronic clinical note entry (10th),

electronic ordering of laboratory tests (8th), electronic alerts/prompts about potential drug dose/interaction problems (8th) and electronic access to patient test results (7th).

Adoption rates for e-care are similarly low. A Joint Advisory Committee to Congress found that less than 1% of total U.S. provider locations use e-care. Approximately 200 e-care networks connect only 3,000 providers across the country; typically, the networks are used on a limited basis.37 A 2008 American Hospital Association survey found that for each of six conditions, only 2-12% of hospitals use Internet-enabled monitoring devices (fixed and mobile), covering 4-8% of relevant patient populations for each condition. Only 17% of home-care agencies use remote monitoring solutions in their practices. (source)

The plan goes on to cite the expected benefits - more effective and efficient health care, cost savings and patient empowerment - from increasing deployment of theses technologies. Many examples the plan describes are cross-cutting apps and strategies that don't fit into traditional models of clinician-patient interaction.



As you can see, "Health IT" is the umbrella term under which all the other categories reside, but under that umbrella, the distinctions between the various categories are blurry. For example, you might access your EHR during an e-care exchange with your clinician via your mobile device. Some crosscutting technologies touted by the plan include "a smartphone application that displays real-time fetal heartbeat and maternal contraction data allowing

obstetricians to track a mother's labor" and "wearable wireless patch-like sensors that transmit health data over commercial wireless networks to practitioners, caregivers and patients."

All of this requires bandwidth, naturally, which is why it's part of the broadband plan. Some long-term goals include "at least 100 million U.S. homes" having "affordable access to download speeds of at least 100 megabits per second and actual upload speeds of at least 50 megabits per second", and "every American community having affordable access to at least 1 gigabit per second broadband service to anchor institutions such as schools, hospitals and government buildings." But the FCC warns,

The plan is in beta, and always will be. Like the Internet itself, the plan will always be changing--adjusting to new developments in technologies and markets, reflecting new realities, and evolving to realize the unforeseen opportunities of a particular time. As such, implementation requires a long-term commitment to measuring progress and adjusting programs and policies to improve performance.

It's pretty amazing to see a government document describing a government plan as "in beta." That would never have happened back when I started blogging! Further, the plan was compiled with public feedback, much of it online feedback, and more public input is invited.

Since the government is the largest health care payor in the country, concerted government efforts to mandate more effective use and widespread adoption of health technology could have big impacts. But the FCC is also pursuing more innovative ways to uncover new health technologies, like the forthcoming Apps for Inclusion competition:

With $100,000 in prize money at stake, we are looking for innovative apps that are specifically targeted to people at the edge of the digital divide - those who traditionally have lower adoption rates and are often geographically and economically isolated. Our goal is to foster the creation of a new suit of social-purpose apps that leverage the talent and ideas of Americans across the country to implement core goals of the National Broadband Plan - the utilization of technology to improve Americans' access to health, education, public safety, key government services and more.

So if you've got any ideas for how to harness the internet to improve health, start working on your code now!