



TeleHealth In A Connected Age



The Current Universe

The current construct of the health system centers around organizational information needs and displaces the consumer as a priority.

This creates silos of health information that prevent the consumer from having a **“connected” health experience.**

Incompatibility

One critical element to **bridging the silos** is the adoption of standards that allow for compatibility. Until now, vendors have chiefly driven standards that focus on their specific use cases.

Now, unifying standards are being adopted that allow compatibility and facilitate data exchange.

Data Liquidity

A “**Connected Health**” system would see data as liquid with the ability to flow across disparate systems providing seamless transitions in care for the patient.





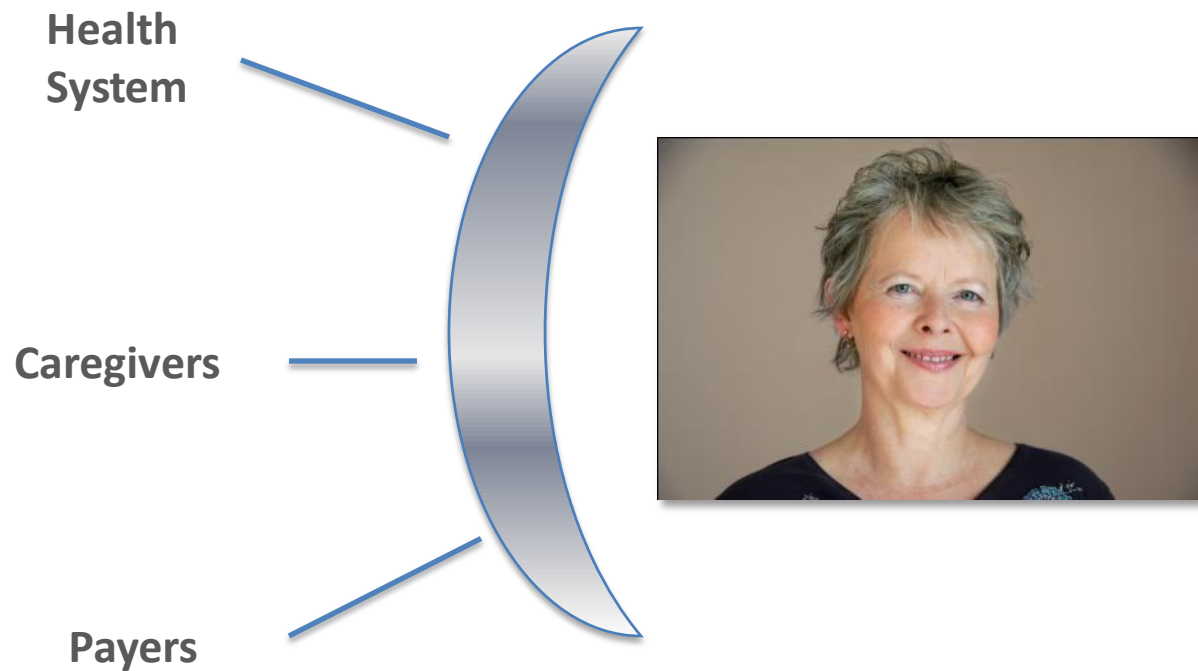
The Shift

A significant shift has occurred recently that places an emphasis on consumer **connected health** and the concept of consumers as “**aggregators**” of health information.

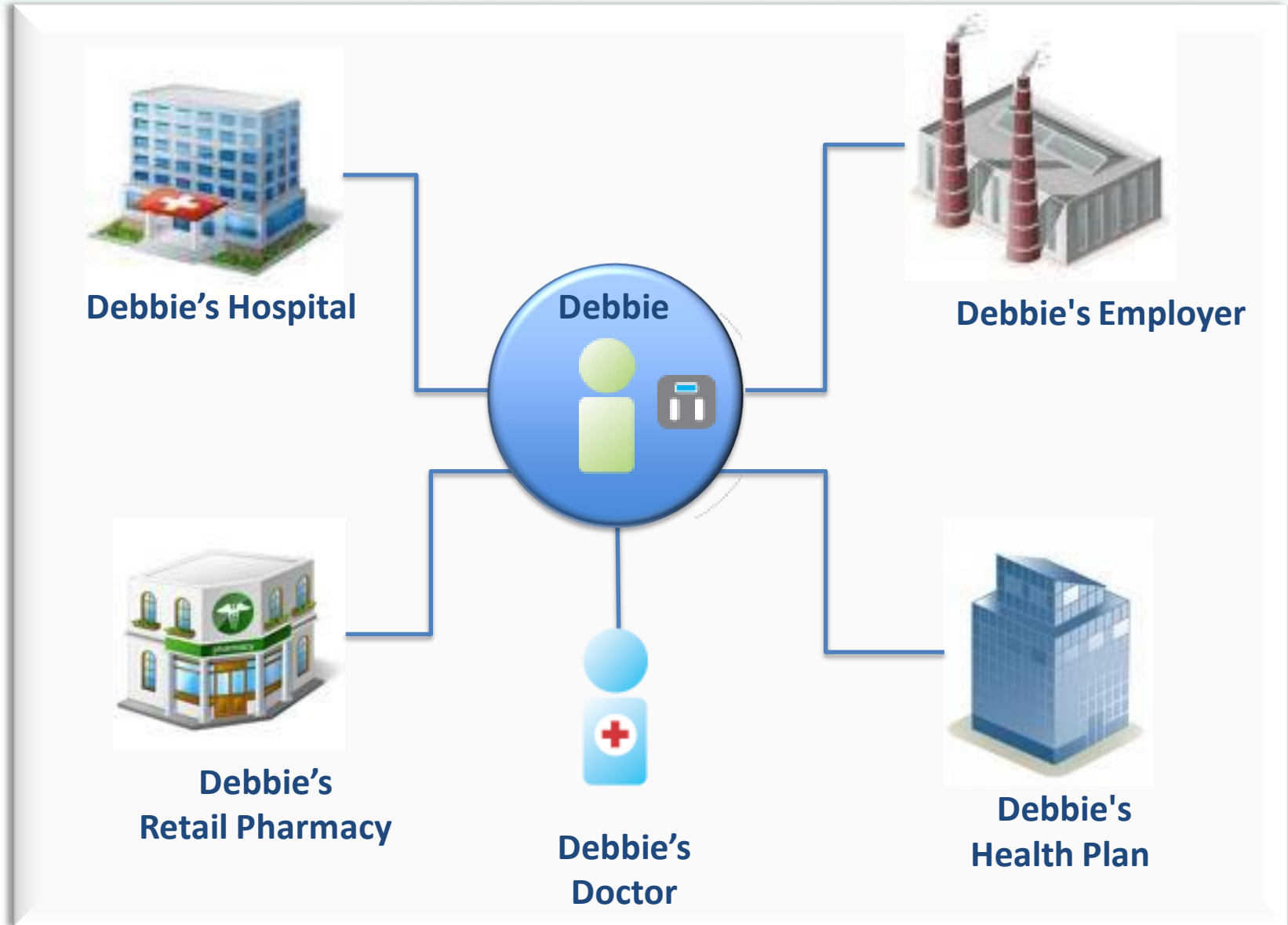
This coupled by the financial and political incentives for connectivity have created a ripe environment for creating **a connected health network.**

Connect Health Platform

The key to a successful connected health experience is adopting a platform that focuses on creating a patient centric experience.



A Patient Centric Connected Experience

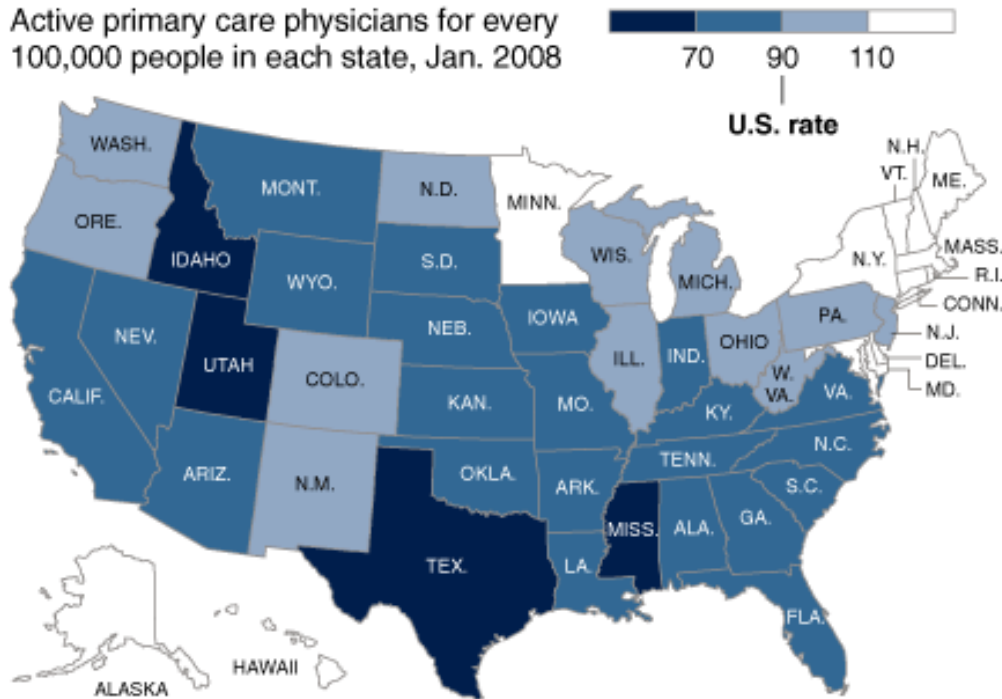


The TeleHealth Intersection

Supply and Demand

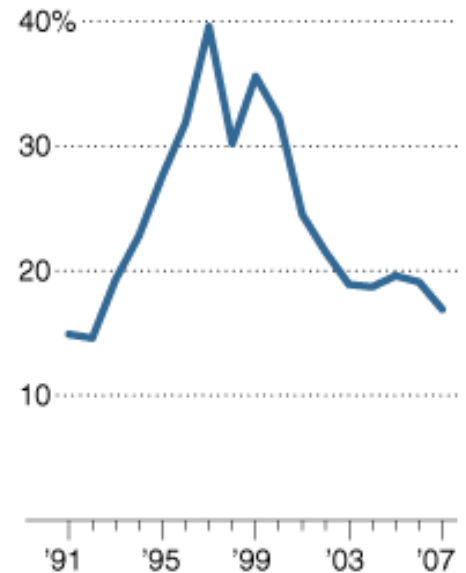
Primary Care Providers in Short Supply

Active primary care physicians for every 100,000 people in each state, Jan. 2008

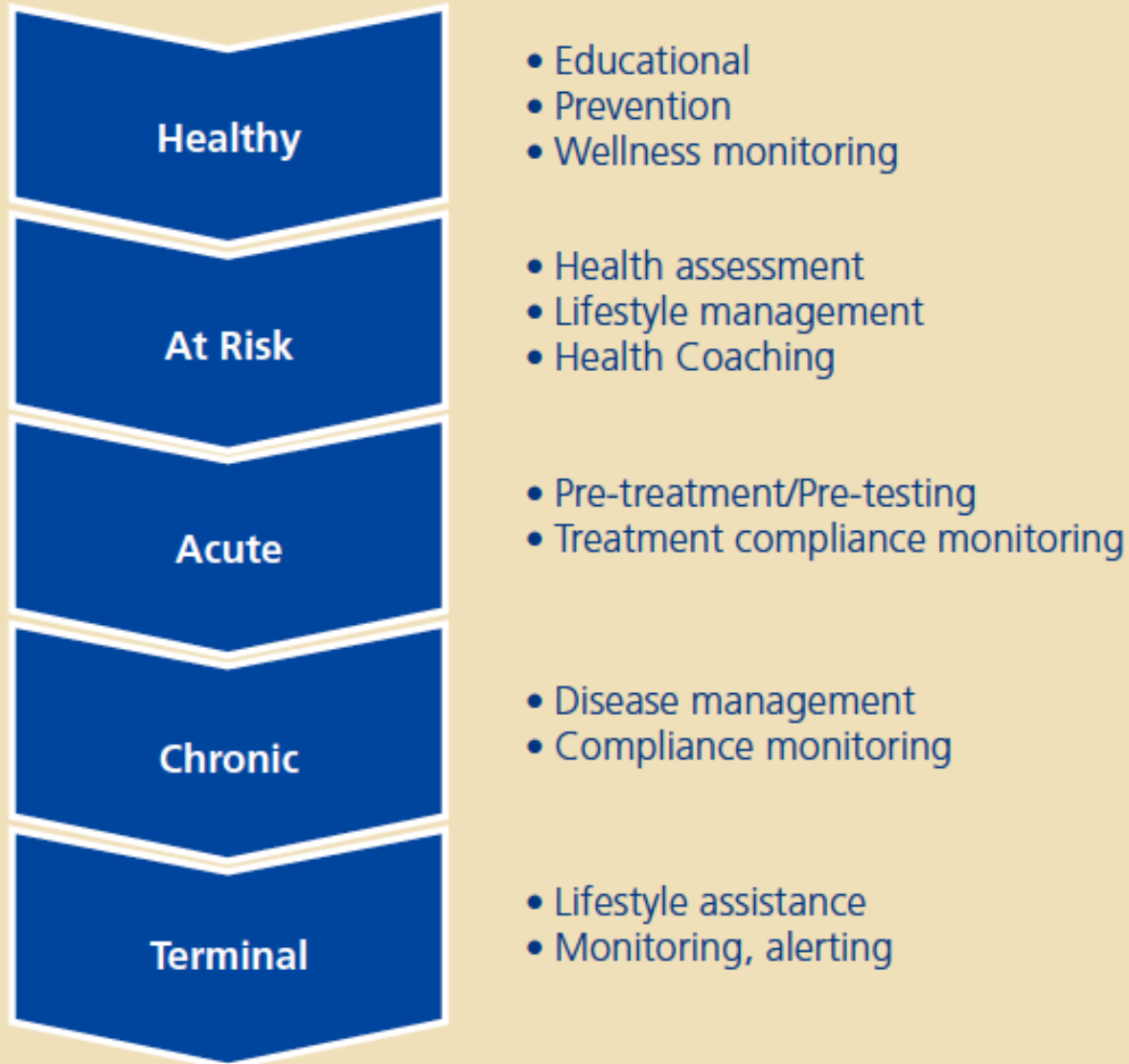


Source: Association of American Medical Colleges

Percentage of medical school graduates who said they intended to go into primary health care



Technology-enabled Connected Care Applicability



benefit

years to mainstream adoption

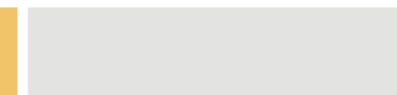
less than 2 years

2 to 5 years

5 to 10 years

more than 10 years

transformational

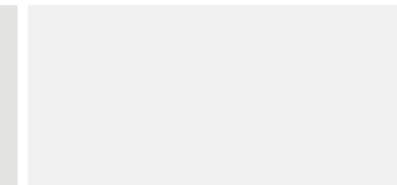


high

Teleradiology

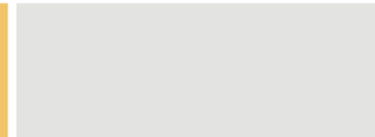
E-Visits (Healthcare Provider)
Remote ECG Monitoring

Home Health Monitoring
Teleretinal Imaging
Video Visits



moderate

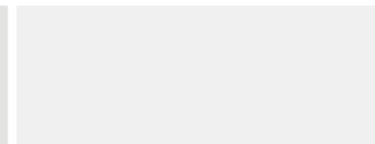
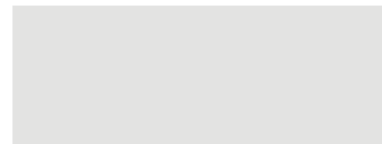
Call Centers
Teleradiology Outsourcing



Mobile Health Monitoring
Tele dermatology

Remote ICU

low



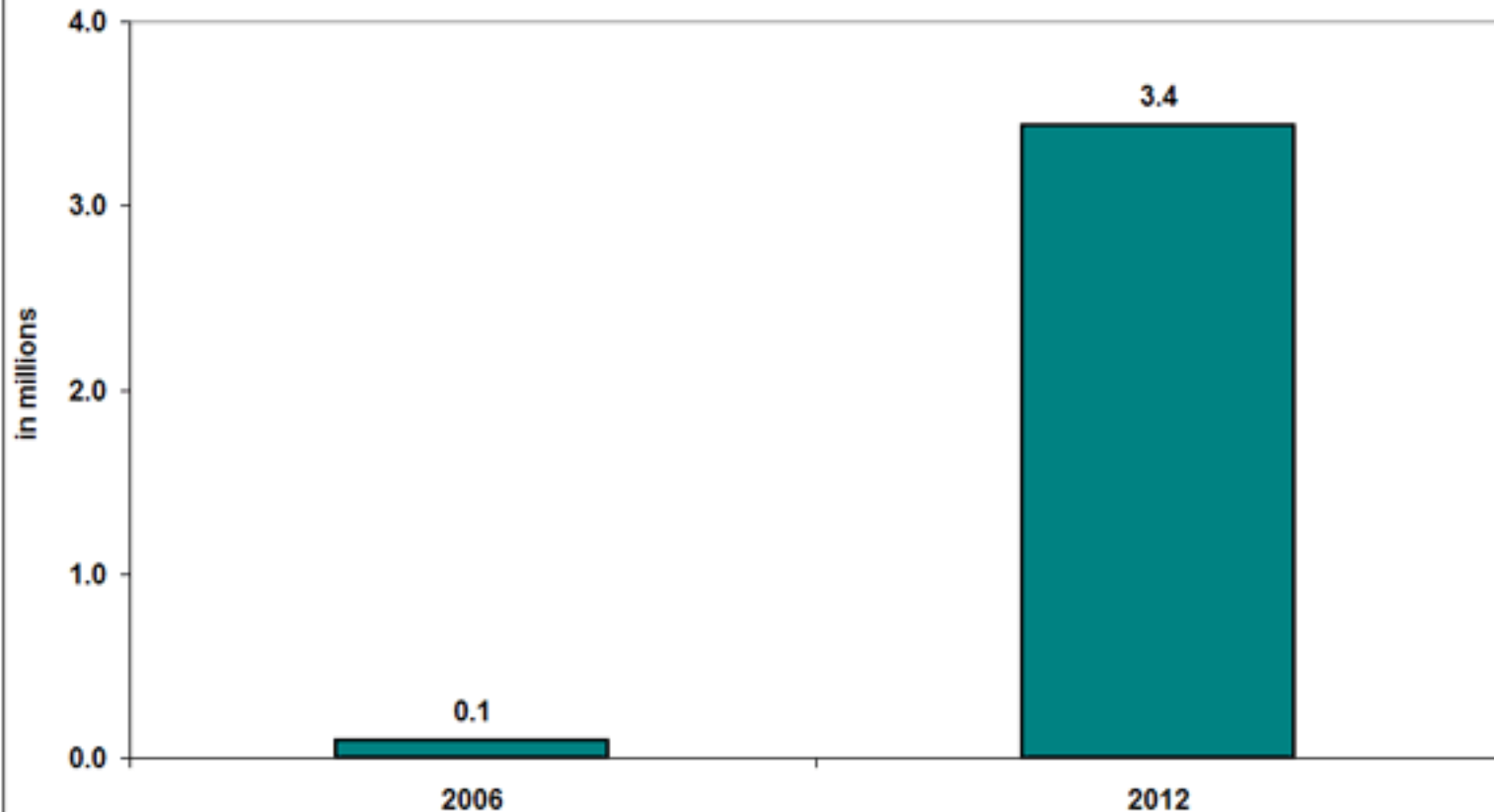
Clinical Kiosks

Telepathology
Telesurgery

As of June 2008

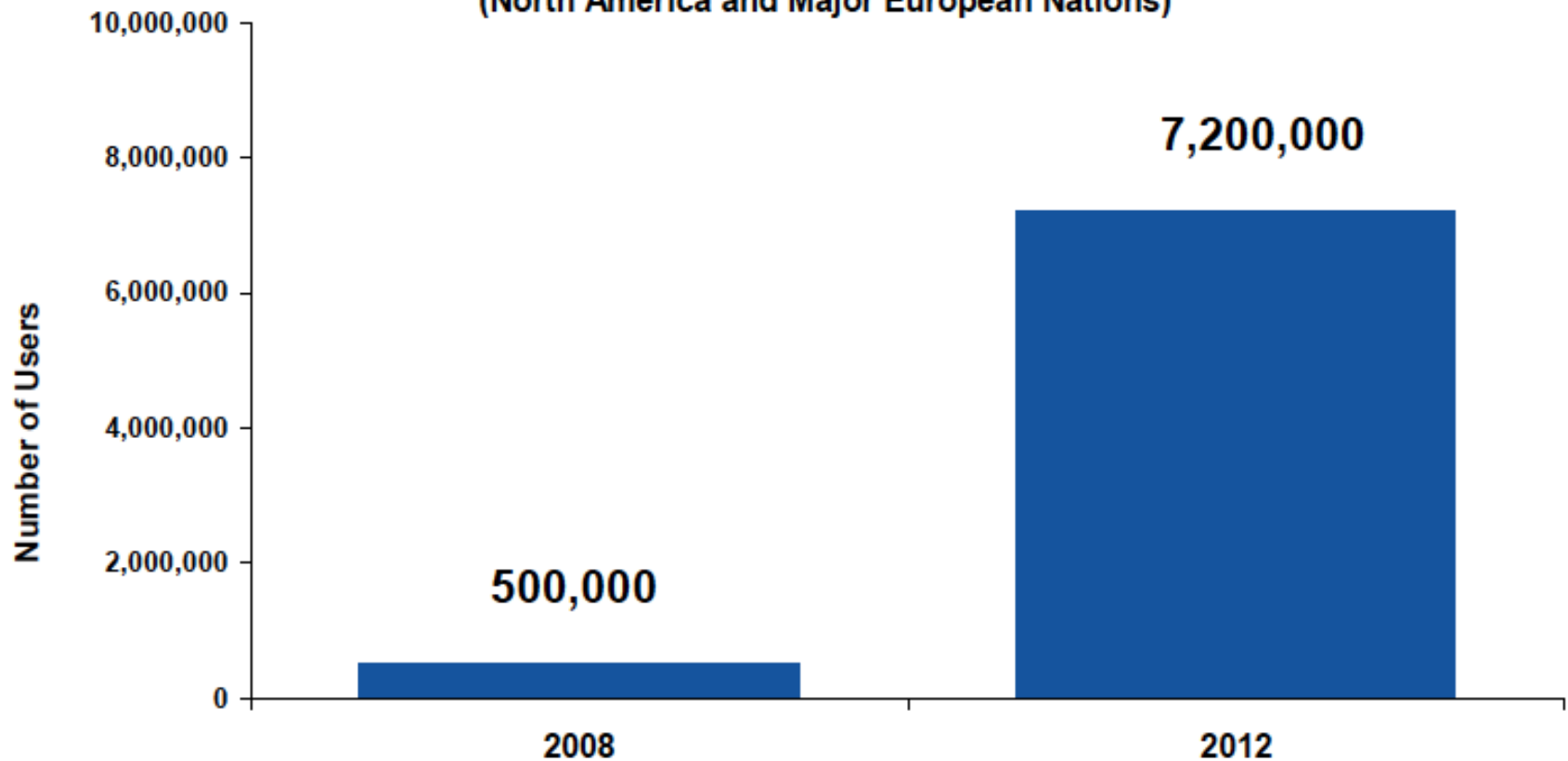
Source: Gartner (June 2008)

Total Number of Senior Citizens (65+) using Sensor-based Network Care Monitoring Solutions at Home in the U.S. (2006-2012)



Source: *Sensor Technology for Home Health Applications*
© 2007 Parks Associates

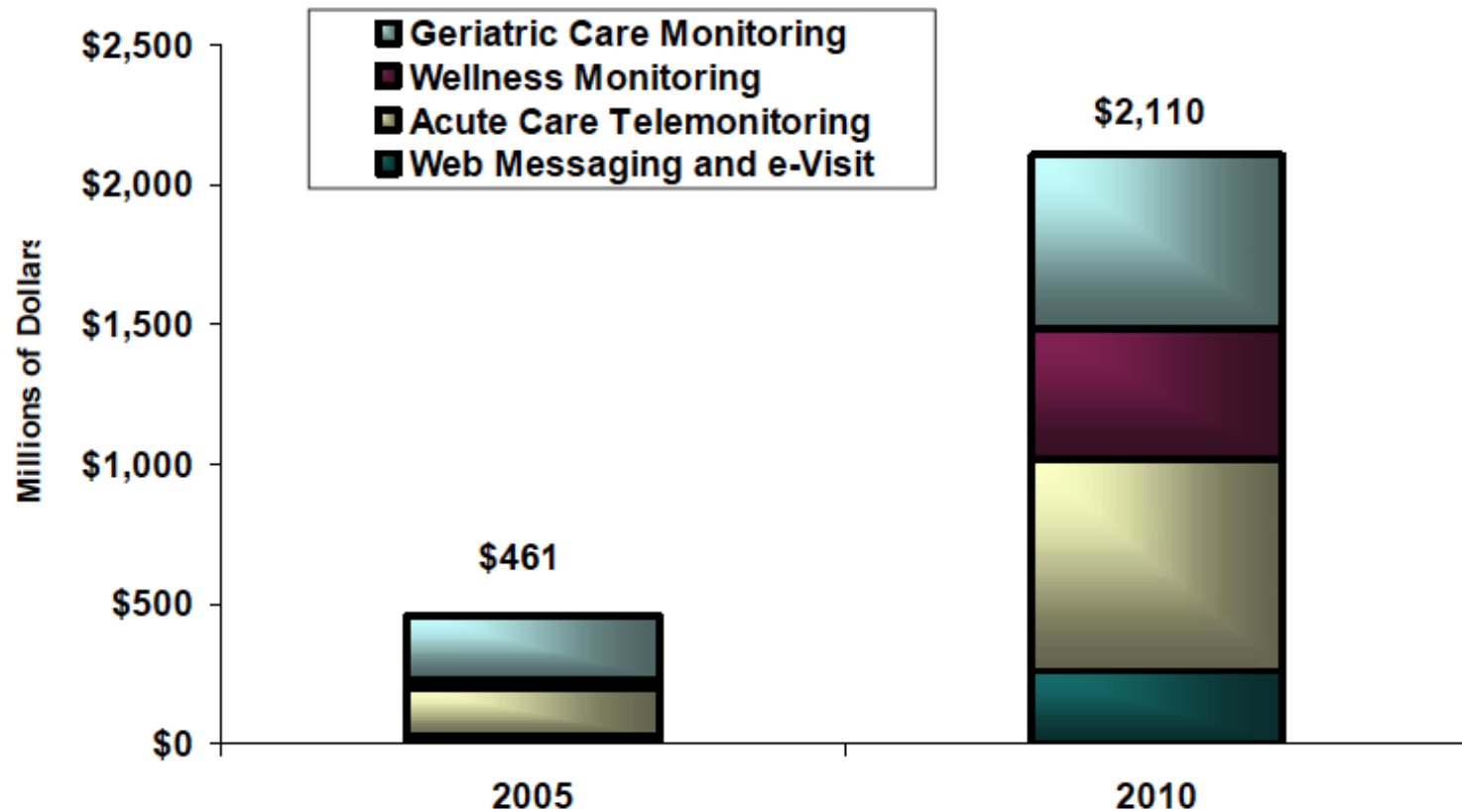
Forecast: Number of Users of Home Health Monitoring Technology (North America and Major European Nations)



Source : Parks Associates Research

Figure 4 The Number of Users of Home Health Monitoring Technology (2008-2012)

Forecast of U.S. Digital Home Health Service Revenue (2005-2010)



Source: *Delivering Quality Healthcare to the Digital Home*
© 2006 Parks Associates

Figure 4: Forecast of Demand for Digital Home Health Services in the U.S. (2005-2010)

Call to Action on Use and Reimbursement for Home Blood Pressure Monitoring

A Joint Scientific Statement From the American Heart Association, American Society of Hypertension, and Preventive Cardiovascular Nurses Association

JAMA[®]

Online article and related content
current as of July 1, 2008.

Effectiveness of Home Blood Pressure Monitoring, Web Communication, and Pharmacist Care on Hypertension Control: A Randomized Controlled Trial

Beverly B. Green; Andrea J. Cook; James D. Ralston; et al.

JAMA. 2008;299(24):2857-2867 (doi:10.1001/jama.299.24.2857)

At 12 months of follow-up, investigators observed no difference in BP control between usual-care patients and those who received home BP monitoring and Web-based support: In both groups, roughly 30% to 35% of patients attained BPs of $\leq 140/90$ mm Hg. In contrast, 56% of patients who received pharmacist care achieved this degree of control, which was a significant improvement over the other groups. Mean systolic and diastolic BP decreased by 14 and 7 mm Hg, respectively, in the pharmacist-care group, compared with 5 to 8 mm Hg and 4 mm Hg, respectively, in the other groups.

Bench To Trench

Practical TeleHealth

Four Ingredients For Success

- Deliver a “magical” user experience
- Deliver value when and where they need it
- It must be sustainable
- And....

...Engage Health Professionals to drive consumer adoption.

Magical User Experience

- **Use design personas**
- **Constantly survey users and watch analytics**
- **Implement reward systems to motivate behavioral change**
- **Don't reinvent the wheel, adapt and enhance from best practice models (Facebook, Twitter, Mint)**

Deliver A Premium ExperienceWhere They Are





Engage Health Professionals

Meaningful Use Goals:

- Improve quality, safety, and efficiency
- Engage patients and their families
- Improve care coordination
- Improve population and public health
- Ensure privacy and security protections

Sustainability and Engagement

Adoption Year	Maximum Payment							PFS Penalty
	2011	2012	2013	2014	2015	2016	Total	
2011	\$18,000	\$12,000	\$8,000	\$4,000	\$2,000	\$0	\$44,000	
2012		\$18,000	\$12,000	\$8,000	\$4,000	\$2,000	\$44,000	
2013			\$15,000	\$12,000	\$8,000	\$4,000	\$39,000	
2014				\$12,000	\$8,000	\$4,000	\$24,000	
2015							\$0	1%
2016							\$0	2%
2017+							\$0	3%

Questions