Making Sense of the Connected Health Opportunity

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President & CEO
THE WLSA COMMUNITY

Affinity Networks, Inc.
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Ascension Health
AT&T
Aventyn
BodyMedia
Calgary Scientific
Cardiocom
CareFusion
CellTrak
China Mobile
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MARKET DRIVERS: HEALTHCARE LANDSCAPE
Individuals aged 65+
(as a percentage of population)

W. Europe
United States
China
World
India

Source: www.census.gov
Projected % growth in population vs. doctors, worldwide

- Total Population
- Doctors
- Population, age 65+

60% growth

Source: WHO
The Cost of Chronic Disease (US$, Billions)

- Heart Disease
- Cancer
- Pulmonary Conditions
- Diabetes
- Stroke

Source: Milken Institute
Healthcare Expenditure Per Capita (current US$)

- United States
- High Income OECD
- World
- China
- India

Source: World Bank
Who Pays For Healthcare?

Payment Sources in 2010
Source: CHCF 2012 Report

- **Private Health Insurance, 33%**
- **Medicare, 39%**
- **Medicaid, 15%**
- **Out of Pocket, 12%**
- **Other Payers, 7%**
- **Investment, 6%**
- **Other Public Insurance, 4%**
- **Public Health Activities, 3%**
- **Who Pays For Healthcare?**
Nearly 1/3 of US Healthcare Spending is Wasted…

- Unnecessary Services: $210B
- Excessive Administrative Costs: $190B
- Inefficiently Delivered Services: $130B
- Prices that are Too High: $105B
- Fraud: $75B
- Missed Prevention Opportunities: $55B

Source: Institute of Medicine
6 Billion Mobile Cellular Subscriptions

Subscriptions Per 100 inhabitants

Year: 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011*

Developed:  117.8
World:      86.7
Developing: 78.8

* Estimate.
Source: ITU World Telecommunication /ICT Indicators database
Emerging Consumer Segments
Rising Out of Pocket Costs (Current US$)

Source: Commonwealth Fund OECD Data
Who Makes Buying Decisions?

**Tom, 9, Type 1 Diabetic**
Uses Telcare BGM. Mom can check results remotely.

**Frank, 86**
Wants to stay in his own home as long as possible. Uses Independa system to keep in touch with his family.

**Kate, 37**
Trying to lose some weight and improve fitness. Purchased BodyMedia device to track activity and diet.

- **Prescribed by physician, covered by insurance**
  - Purchase influenced by adult children, may be partially covered by insurance. System can be connected to prescribed home monitoring devices.

- **Self-initiated purchase decision, self-pay**
Who Makes Buying Decisions?

**Hospital/Group Practice Administration**
Implements Airstrip remote monitoring system

**Jack, 35, Physician**
Downloads Epocrates to his iPhone

Hospital/Practice-wide
Administration approve and purchase all elements of system

Physician uses on personal device
Value Proposition: The Engaged Patient

Patients with health issues are most likely to use connected health products and services

- Survey average: 49%
  - Familiar with the term mHealth
  - Have poorly managed conditions: 62%
  - Healthcare spending > 30% of income: 74%

- Survey average: 64%
  - Familiar with the term mHealth
  - Have poorly managed conditions: 82%
  - Healthcare spending > 30% of income: 79%

- Survey average: 47%
  - Familiar with the term mHealth
  - Have poorly managed conditions: 72%
  - Healthcare spending > 30% of income: 68%

Source: Economist Intelligence Unit, 2012
Value Proposition: Staying at Home

- **Acute Care**: $10,000
- **Community Care**: $1,000
- **Home Care**: $1

Quality of Life vs. Cost of Care per Day

Source: WLSA compilation

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Value Proposition:
The Engaged Consumer
US Market for Nutritional Supplements

$ Billion

1997 2000 2005 2010

Source: Natural Products Foundation

Billion US Market for NutriZonal Supplements

1997 2000 2005 2010

Source: Natural Products Foundation
Key Challenges in the Design of Connected Health Products & Services
DESIGN
DATA SHARING & MANAGEMENT

Devices & Sensors collect patient data

Data is transmitted to the cloud and aggregated

Then shared to the patient, caregivers, physicians, data centers, etc.
ENGAGEMENT
Clinical Trials Results  Implementation in Clinical Practice

17 year lag...

Source: Agency for Healthcare Research and Quality (AHRQ)
EXAMPLES OF BEST IN CLASS DEVICES
Future Vision – Telemedicine 2.0

Passive & Active Data Collection via Monitoring Devices

Cloud-based Software & Services

Alerts/Information

Information, Coaching & Instruction

Physician/Coach

Who pays?

Payer

Reimbursable?
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www.qualcommlife.com

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