Longevity Paradox
World’s Greatest Success and Opportunity

• “I have my health and I can do things.”
• Enabling older adults to manage their health and “do things” is a call to innovate in how we craft public policy, use technology, and envision health & wellness.
“Disruptive Demographics”

Death Takes A Holiday

It seems people aren’t expiring fast enough to meet revenue projections.

Health, Wellness & Aging
Forecasting the Future?
What is Old?
Health Expenditures by Age

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Joseph F. Coughlin, Ph.D.
MIT AgeLab
Massachusetts Institute of Technology
77 Massachusetts Avenue, Room E40-279
Cambridge, MA 02139
tel: 617.253.4978
email: coughlin@mit.edu
Self-Directed Health Consumers

- Healthier
- Informed
- Tech-savvy
- Female
- Confident
- Older

Improved Health

- Decrease in disability and decline in “new elderly” for all income groups
- Longer period of relative wellness into “old”age.
- 110 M with chronic illness, 60 M with 2+ chronic conditions
- Difference between ill and sick.
Educated Researchers

• Number of adults with 4+ years of college has doubled in last 20 years
• Fastest growing segment of Internet users – 50+
• Most seeking information on healthcare, finance and automobile purchases – eroding the traditional distribution channel – the doctor.

DIY Health on the Internet

• Internet health information has grown 4X faster than all other categories on the web - 1.5 billion displays & views by nearly 54 million people (June 2007-June 2008).

“I Frequently Access Internet-based Medical Information for:”

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Myself</td>
<td>50</td>
<td>70%</td>
</tr>
<tr>
<td>Others</td>
<td>45</td>
<td>64%</td>
</tr>
</tbody>
</table>

Source: Yankelovich
‘Smart’ Income

‘Not how much I have, but how smart I am’

Women – Gatekeepers of Health

• Women are more educated – now have more college degrees than men.
• New generation of professionals.
• Home CEO -- Manage majority of household activities.
• Live longer (7-11+ years) than men.
• Primary caregivers.
• Responsible for 80-90% of health & care decisions.
Confident Health Consumers

- 64% of boomers believe their ‘IQ is higher than average.’
- According to Yankelovich, 74% of boomers ‘have a great deal of confidence in themselves.’
- Desire for ‘results without sacrifice.’
- Looking for tools & knowledge to ‘cut through the clutter.’

Consumer Health Ownership
Responsibility, Awareness & Action

- “I am directly responsible for my health”
  - Baby Boomers 87%
  - X’ers 78%
  - Echo 73%
- “Health professionals keep me healthy.”
  - Baby Boomers 32%
  - X’ers 25%
  - Echo 22%

Source: Yankelovich
Knowledge, Self-care & Health Behavior

<table>
<thead>
<tr>
<th>Know &amp; Care</th>
<th>Doing</th>
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<tr>
<td>Annual Check Up</td>
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<tr>
<td>Maintaining Health Weight</td>
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<tr>
<td>Eight Hours of Sleep</td>
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<tr>
<td>Exercise 3X per Week</td>
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<tr>
<td>Monitor Blood Pressure</td>
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<td>Monitor Cholesterol</td>
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<tr>
<td>Reducing Fat Diet</td>
<td>50</td>
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<tr>
<td>Watching Calories</td>
<td>38</td>
</tr>
</tbody>
</table>

Source: Yankelovich

‘Most Important Meal of the Day’

The Death of Breakfast?

• ~20% skip breakfast.
• ~30% eat eggs or cereal.
• ~21% eat bread
• ~15% drink coffee, soda or a high-fat dessert.
• Soft drinks are the fastest growing breakfast beverage among women.
• Eating is “…‘constrained luxury’ that must be quick, easy and a portable handheld food that may be eaten with one hand on the wheel, keyboard or phone.”
• Lunch is next -- 1/3 employees skip lunch, or eat fast food so they can run errands or work.

Source: American Medical Women’s Assoc.; Food-Service Research Institute; Global Information Report; (Siega, et al.; 2000)
Information Overload

• “There is so much being written about health these days that it is difficult to know what you should and should not believe.”

• Baby Boomers 84%
  X’ers 78
  Echo 79

Technology-Enabled Innovations

• ‘Intelligence Everywhere’ (ubiquitous sensing) personal emergency response systems, smart appliances, home healthcare.
• Wearable Computing ultralight assistive devices & clothing.
• IT-Enabled Service Delivery Models bringing a new generation of customized services to both older adults and older children.
Emerging Innovations in Connected Health

I. Retail Health Services
II. Personalized Health Networks
III. Intelligent Home Services
IV. 24/7 Advice & Touch
V. Driver Vitality

"We do therapeutic intervention, but we think the real opportunity is helping patients take care of themselves...compliance services, cognitive services, nutrition guidance, screening programs and other efforts...such as home health."
- CEO Major Pharmacy Chain

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MIT AgeLab Pharm Animals

Leveraging technology to link health advice at the point of decision in grocery store aisle

“MIT AgeLab Smart Shopper Personal Advisor”
II. Personalized Virtual Health Networks

• AARP Health AID
  - EHR
  - Direct connection with public and private service providers, e.g., caregiving, LTC.
  - Quality rating system
• Microsoft-Medstory
  - Personalized search
  - Archived records
• Google Health

Virtual Health Networks
III. Intelligent Home Services

• Strategic Partnerships will provide an array of “brand” home health products and service.
• Leveraging sensors from the kitchen, bath to underwear.
• New providers will emerge.

Health from the “Kitchen to the Bathroom”

• Intelligence everywhere.
• “Always On” services.
• Device manufacturers will develop service innovation models & seek trusted retail channels.
Branded Home Health Services

- Multiple sensor touch points throughout home
  - Kitchen appliances
  - Bathroom
  - Health station, etc.
  - Emergency services
  - Clothing, e.g., wearables
  - Entertainment platforms

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IV. 24/7 Advice & Touch

• Platform to collect and report key bio-vital data, e.g., glucose monitoring, med compliance.
• Use of mobile IT to enhance distribution, regulate/reward behaviors.
• Parent home monitoring

V. Driver Vitality: Health in the Car

QuickTime™ and a TIFF (LZW) decompressor are needed to see this picture.
Connected Health & Personal Responsibility

- Equity of expectations.
- Need for health literacy, numeracy throughout the lifespan.
- “Right to underwrite,” health and life insurance.
- Factor in employment, hiring, promotion & dismissal.
- A new social contract on health & health care costs

Innovating in Boomer Time

- Aging is life tomorrow.
- In the past few minutes, more than 500 consumers, in the US alone, turned 63 years old — Can health innovate in Boomer Time?