

Building Global Prosperity: Where to Next?

GE MACRO TRENDS WORKING SESSION

AGING AND WELLNESS

KIN GLOBAL 2012

PRESENTED BY



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Macro Trend Working Session Overview

KIN Global is a platform for cross sector collaboration—where all delegates come to actively participate. Our delegates are hand-selected, as each of them is a leader in his or her field. To leverage the collective intelligence of KINians and elevate thinking in areas relevant to our businesses, we created the Macro Trend Working Sessions.

During KIN Global 2012, we facilitated these working sessions to address four macro trends facing humanity in which business will play a critical part. Sessions included thought and practice leaders in each realm and resulted in tangible output. The summary below is a distillation of the conversation on “Aging and Wellness.” We invite readers to review the findings below and discover opportunities for their own organizations.

Aging and Wellness

The good news for us baby boomers is that we are living longer—about 30 years more than our grandparents’ generation. The bad news is that we are living longer with chronic illnesses, the cost of which is threatening to overwhelm healthcare systems around the globe. Standard and Poor’s says there is no greater factor that will decide the bankruptcy or prosperity of nations than how they deal with aging populations over the next few years. This presents an enormous opportunity for businesses to help address the needs of this aging population—to not only treat their illnesses, but keep them healthier, longer, and therefore, be part of the solution.

AGING AND WELLNESS EXPERTS:



Seema Kumbhat, MD
Medical Director, Devices
Hospira Corporation



Mark Phillips
Chief Marketing Officer
GE Healthcare



Jim Pursley
General Manager
Independent Living
Intel/GE Care Innovations



Facilitator: Paul Epner
Advisor
Centers for Disease Control (CDC)
Former Director of Healthcare
Improvement Initiatives
Abbott Labs



Douglas Gentile, MD
Chief Medical Officer
Allscripts, Inc.

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Aging & Wellness Says...

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**SOCIAL TECHNOLOGIES
WILL HAVE AN
ENORMOUS IMPACT ON
HEALTHCARE.**

There's lots of evidence that peer groups have a significant impact on lifestyle. Most of our costs today are driven by lifestyle—by diet, by exercise. So I think social is one of those areas that is potentially going to be very disruptive in managing healthcare costs, as well as effectively engaging and coordinating community resources.

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**THERE ARE A LOT OF
GREAT, INNOVATIVE
CHINESE COMPANIES
OUT THERE,** and Indian companies. The old traditions of Chinese inventiveness are coming back.

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**I MET WITH A 67-YEAR-
OLD RADIOLOGIST THE
OTHER DAY.** He pulled out the iPhone his son bought him and said, 'I need your system to be as easy to use as this!' We've never designed that way. Worried about how much you can see, image quality, how fast can we give it to you. It's never been, 'How connected is it? How easy is it to use? How easy is it to interact?' But that is where we are moving now.”

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**I HEAR 'BOOMER,
BOOMER, BOOMER,'** because the focus patients, the doctors and the key influencers are all boomers. But I see Gen Y behaving completely differently. They make decisions based on whether the technology knows enough about them. The oldest Gen Y is now 36. The influencer, the decision-maker, the caregiver is turning into a Gen Y.

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**IF YOU'RE GOING
TO BRING ME NEW
TECHNOLOGY,** tell me how it takes cost out or helps me be more productive or increases reimbursables. We need to focus more on productivity, as economic outcomes are going to be just as important as clinical outcomes.

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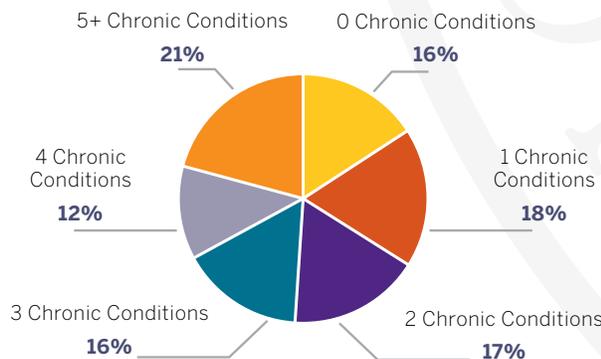
Facilitator: Paul Epner

ADVISOR, CENTERS FOR DISEASE CONTROL (CDC)

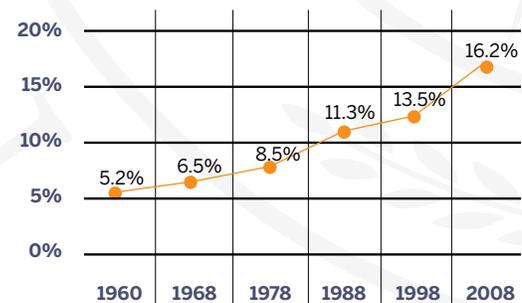
In healthcare, there are a lot of opportunities to “shake things up” due to several shifts:

- Healthcare costs are going up. In the US, it is approaching 18% of GDP. People say it can't go on, but it goes on.
- Population is aging. People 65+ going from 40 million today to 72 million in 2030. That's 32 million more individuals who will require treatment.
- 50% of this population has chronic conditions. 5% have five or more chronic conditions, spending 21%; while 4% have four, spending 12%. That is, less than 10% of the people consume one-third of the cost. (Data is six years old, so it has doubtless gotten worse.)
- So living longer is not living healthier. Still the same onset of chronic disease, but it does not kill you as fast.
- Fewer primary care doctors mean more specialists who are trained narrowly and are not in the best position to manage the co-morbidity of multiple chronic conditions.
- With insufficient residencies for 91% of graduating MDs, there will be increased use of “physician extenders” such as nurses.

**Percentage of Health Care Total Spending
by Number of Chronic Conditions**



**Healthcare Expenditures
(NHE as % of GDP)**



Source: cms.gov

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Doug Gentile, MD

CHIEF MEDICAL OFFICER, ALLSCRIPTS

There are 78 million baby boomers, living approximately 30 years more than the last generation. Medicare alone is projected to be \$860 billion. But this presents a massive opportunity for companies that can serve this need. Baby boomers are also savvy and wealthy. 90% have a high school diploma, 57% went to college. They are computer literate; 75% use a computer at work.

This creates a self-service opportunity, particularly on the patient side, where chronic diseases have a significant lifestyle component. Healthcare tools to support individual self-management are way behind. We should not need a doctor to tell us about routine preventative testing, such as mammograms or colonoscopies—there will not be enough primary care doctors, as noted earlier. A doctor cannot manage a chronic disease in a 15-minute appointment every few months; it's what happens between those visits that matters.

Patients need help navigating the more complex medical environment, with smart tools that take advantage of IT and mobile communications and are sensitive to patient preference on quantity, type and delivery mode for information. On the provider side, this means better analytical tools that don't overwhelm the doctor with data but provide useful targeted summaries and alerts to important changes.

Jim Pursley

**GENERAL MANAGER OF INDEPENDENT LIVING
INTEL/GE CARE INNOVATIONS JOINT VENTURE**

My wife's grandmother lived 25 years as a widow. She developed diabetes later in life and showed signs of cognitive impairment due to vascular dementia. She fell while alone at age 82, lying on the floor for several hours. Her family had to deal with numerous issues: 'How can we take away her car keys? What does Medicare pay? How do children coordinate when they have different points of view, balancing safety/security versus privacy/independence; Who will take what roles and responsibilities?'

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49% of employees are caregivers. How can companies respond to create competitive advantage?

- Caregiving is a huge burden, emotionally, physically, and financially, leading to increased chronic disease among caregivers. It creates absenteeism, retention problems, etc. How can we allow people to not feel they have to choose between being a son/daughter and being an employee?
- And employees will become aged themselves. Do we give up that intellectual capital or create part-time, job-sharing and other types of engagement?
- Wellness and prevention with a 55-year-old caregiver has a very good ROI. The payback period is real and short.
- Regarding care coordination, how do we connect not only doctors with data but also connectivity among teams of caregivers, to create a community of support?
- With the shortage of primary care doctors and nurses, we are going to have to train families, neighbors, and social workers to deliver front-line care.

Seema Kumbhat, MD

MEDICAL DIRECTOR FOR DEVICES
HOSPIRA

We develop devices that allow patients to be mobile while getting their daily therapy. For instance, in our oncology business, we are thinking about ways to extend pump technology to send out data, monitor side effects and improve outcomes. Also, with the extension of predictive modeling and genetics, we can do a better risk stratification, so that full treatments are not given to patients with lower risk. (See, for instance, Oncotype Dx.)

Another angle is better engagement with providers, particularly geriatricians, for whom the drop in numbers is worse than for primary care doctors—going toward 1.6 per 10,000—due to low pay, high risk, and high stress. Clinical trials need to be designed with the elderly in mind. In Japan, they use robotic nurses to help give drugs, help move them, bring them things. Could we provide devices that a robot could control?

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Mark Phillips

CHIEF MARKETING OFFICER, GE HEALTHCARE

Our healthcare system is not tuned to aging populations. The key issue is cost: More people needing services, fewer taxpayers to pay. Engineers tend to focus on pushing technology along the current disease-cure trajectory, but in many cases it is cost, quality, and access that will make the biggest difference on overall outcomes. We need to focus on technologies that help us be healthier, versus focusing on treatment of disease.

For a public company with a need for early paybacks, innovation is hard to sustain. So GE is doing more external partnering to invest in innovation that otherwise would not make the cut. We are also trying to change our mindset, to observe the patient experience as well as just asking doctors what they want. Finally, we are looking more globally. For instance, in Japan, more diapers are sold for adults than for babies. Consider how that manifests across the rest of the industry. It portends a complete shift in the market.

Summary of Main Points

- Three key healthcare market opportunity domains: Acute, Chronic, and Wellness.
- Cost effectiveness must follow quality effectiveness. Cost dependent on government policies that can change very quickly.
- Human factors must be an emphasis for aging populations.
- Gen Y are now caregivers to baby boomers: what are their needs going to be and how are we going to support them in their emerging caregiver role?
- This all has an impact on employers: how are we going to deal with distracted employees and address retention issues? Need tools.
- We're moving from a physician-centric world to a patient-centric world. What kind of decision support can be given to consumers to navigate this new world?
- It isn't about technical innovation, it's about adoption. How are we going to affect behaviors?

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Implications for Business: Challenge #1: Rising Healthcare Costs

People say costs can't continue to rise, but they do. Absent proactive action, sovereign debt issues may drive the available solution set.

The US system is designed to drive up costs: fee-for-service, volume-based without effectiveness measures; consumers unaware of costs, etc. Part of the problem is that the system focuses on treatment of diseases in later stages, when acute care is needed; that is, doctors try to figure out what is wrong with you once you show symptoms.

OPPORTUNITIES

Providers are interested in innovations that lower costs while increasing productivity and reimbursement. Some possibilities include:

- Smarter systems
 - Predictive modeling
 - Genetic-based health 7 risk stratification (Oncotype Dx)
 - Pump technology that sends out more data, such as side effects, could improve outcomes.
- Innovations that drive healthier lifestyles early
 - Value-based care. Better reimbursement for better quality, and managing chronic illness effectively (e.g., shared savings models).
 - Personal prevention plans. Wellness and prevention with a 55-year-old caregiver has a very good ROI.
 - Social changes could have an enormous impact. Peer groups have influence on health and lifestyle.
 - For Gen Y in particular, the social element will be enormous. They will use social networks and reject technologies that don't know enough about them.
 - Age-adjusted competitive gaming, to develop healthy behaviors at any age.
- New investment models
 - Working with funding partner for LT technology development that would otherwise be outside the scope of a private company. This requires more information sharing.
 - Looking globally. For example, Japan is a leading indicator, where 25% of women are over 65. There are lots of innovative Chinese and Indian companies coming up with cost-effective solutions.

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Challenge #2: Aging Populations

People 65+ are going from 40 million today to 72 million by 2030. 50% have chronic conditions. 9% have four or more chronic conditions, and they are spending 33% of the total budget. But living longer is not living healthier. Still the same onset of chronic disease, but it does not kill as fast.

OPPORTUNITIES

- Better support for caregivers
 - Create part-time, job-sharing and other types of engagements.
 - Care coordination. How do we connect not only doctors but also caregivers?
 - Robotic nurses, as well as delivery systems that robots can control.
 - Social tools for Gen Y, who are an increasing proportion of the caregiver population.
- Need to pay more attention to human factors (e.g., friable skin; ability to turn a knob).
- Drug supply—today it's a manufacturing problem; in the future it may be manufacturing capacity, due to high demand.

Challenge #3: Shortage of Primary Care Doctors

Fewer primary care docs mean more specialists who are not trained in co-morbidity. Also, there are insufficient residencies for 91% of graduating MDs.

OPPORTUNITIES

- Self-service opportunity to manage healthcare. For example:
 - Engaging personalized disease management systems, with virtual online coaching, to help us manage chronic diseases.
 - Decision analytic tools to help patients assess risk/reward and empower them to say “no” to procedures, with data, as well as say “yes”—and, critically, to follow through on evidence-based treatment plans.
 - Medical concierge tools.
 - Multichannel communication with analytics. Remote, multichannel monitoring (with robust analytics). The FCC just opened up spectrum for “bodyware” networks: miniature, mobile systems that provide robust, quantitative data on multiple physical elements. But also, what does the patient want and how do they want to get it? How does social media fit into this, involving caretakers?

RAPPORTEUR: MIKE LIPPITZ - RESEARCH FELLOW, CENTER FOR RESEARCH IN TECHNOLOGY & INNOVATION, KELLOGG SCHOOL OF MANAGEMENT

Special Thanks to

