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Chronic care at the crossroads: Exploring solutions for chronic care management. Report on the US Summit.

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Report on the US Summit

"Chronic Care at the Crossroads: Exploring Solutions for Chronic Care Management"

Transcribed and adapted for publication by Janice L. Clarke, RN, Medical Writer, Department of Health Policy, Jefferson Medical College, Philadelphia, PA

On Tuesday, July 17, 2007 in Washington, DC, Intel Corporation assembled a group of the nation's most respected health leaders to discuss the issues surrounding chronic care and an aging population and explore solutions to these highly complex and increasingly urgent challenges for the US health care system. The high-level summit, hosted by Intel Chairman Craig Barrett, was held in the auditorium of the National Museum for Women in the Arts and attended, either in person or via the simultaneous webcast, by presidents, chairmen, and executive directors of influential organizations including the National Business Coalition on Health, the National Medical Association, and the Centers for Medicare and Medicaid Services (CMS).

The summit was organized around 3 expert panels with representation from health care associations, health insurance companies, policy makers, advocates, providers and provider organizations, patient advocacy groups, and health technologies. **Susan Dentzer**, PBS' on-air health correspondent (*The NewsHour with Jim Lehrer*), served as moderator. Highlights of the panel discussions follow.

Summit on Chronic Disease in the United Kingdom

To highlight the worldwide nature of this issue, a parallel summit was hosted by Intel Corporation at the Royal College of Physicians in London, UK on July 19, 2007. **Jeremy Vines**, a prominent BBC broadcaster, moderated panel discussions among a group of UK health care experts including representatives from NHS (National Health Service) Connecting for Health, The Research Institute for the Care of the Elderly (RICE), and the UK eHealth Association. Panelists discussed initiatives that could improve care for people with chronic diseases and ease the social and financial burden on patients, their families, and the NHS. Although they debated the merits of various approaches to improving the quality and integration of patient care, there was consensus around the need for a shift from the current "reactive" model to a proactive one. Discussions confirmed that technology will play a pivotal role in enabling the communication and integration necessary for the success of initiatives.

I. IMPACT OF THE AGE WAVE AND CHRONIC DISEASE IN THE NEXT GENERATION

Panelists:

Mark B. McClellan, MPA, MD, PhD
Visiting Senior Fellow, AEI - Brookings Joint Center for Regulatory Studies
The Brookings Institution

Janice Kiecolt-Glaser, PhD
S. Robert Davis Chair of Medicine
Ohio State University College of Medicine

Suzanne Mintz
President/Co-Founder
National Family Caregivers Association (NFCA)

Michael L. O'Dell, MD, MSHA, FAAFP
Chairman & Director
Family Medicine Department and Residency Program
North Mississippi Medical Center

Craig Barrett
Chairman, Intel Corporation
Board Member, American Health Information Community

Ms. Dentzer asked each of the panelists to discuss the likely impact of the age wave in the United States from his or her perspective. In particular, she elicited the panelists' opinions regarding the challenges faced by the next generation of consumers, caregivers, physicians, employers, and policy makers as they grapple with the burden of chronic conditions.

Health Policy Perspective

Former CMS Administrator **Mark McClellan, MPA, MD, PhD** emphasized the need for a fundamental shift in philosophy from "sick care" to "well care," and stressed the need for realignment of the reimbursement system. "The strongest forces for change may be patients and employers."

The 2 specific areas in which we must do a better job are prevention and treatment. He suggested that if obesity levels had been held where they were 10 years ago by means of prevention, the dramatic increases we have seen in the incidence of diabetes mellitus and heart disease would have been effectively forestalled. Regarding treatment of chronic disease, he cited statistics showing that evidence-based medicine is practiced only 50% of the time and observed that, in the United States, undertreatment of hypertension results in as much mortality as all adverse events combined.

It takes a long time to modify the Federal regulations within which government agencies must work. Dr. McClellan pointed out some "pockets of positive change." For example, under the law state Medicaid programs were tied to nursing home care although most people prefer to remain in their homes. CMS defined ways in which state Medicaid programs could demonstrate the quality and cost-effectiveness of home care approaches compared with long-term/nursing home care. These programs have produced positive outcomes in terms of increased quality of life and satisfaction as well as decreased costs for care.

Politically, the focus is always on "out-of-pocket" expenses when it needs to be on the system. Although CMS pays 50% of the nation's health care bills, it is bound by legislative processes. Legislators are besieged by many different constituencies. Responding to a question, Dr. McClellan said that the solution to improving health outcomes will be expensive in the short term. Medicare was designed to pay for hospitalizations (ie, sick care). The solution will require Medicare to increase per capita payments to cover overall care (ie, well care) to keep patients out of the hospital. If Congress focuses less on the short term and more on reducing the overall cost of health care, we will get better care for less cost in the long run.

Caregiver Perspective

A researcher in the area of psychoneuroimmunology, **Janice Kiecolt-Glaser, PhD** shared disturbing statistics on the adverse effects of chronic illness on family caregivers. "Caregivers are the second victims."

Stress interferes with a person's ability to respond to vaccines. Compared with their non-

caregiving counterparts, caregivers have been shown to respond more slowly to vaccines, putting them at greater risk for influenza and pneumonia.

Inflammation is associated with cardiovascular disease and type 2 diabetes. The incidence of inflammation is 4 times greater in family caregivers than non-caregivers. Family caregivers have higher rates of cardiovascular disease and die earlier than non-caregivers.

There also is evidence of premature aging of the immune systems of family caregivers. One study showed family caregivers having a 63% higher mortality rate over a 4-year period. The bottom line is that caring for chronically ill people creates more chronic illness.

Suzanne Mintz sounded an urgent wake-up call, "Not a single family in America will be untouched by chronic illness. Determining how we can best support caregiving families is one of the most important issues our nation must resolve." She personalized the issue by relating one family caregiver's story.

In addition to the stress of watching her 54-year-old husband's daily decline from cerebellar deficiency (a progressively debilitating disease), a woman/caregiver suffered serious financial consequences and experienced increasing isolation as friends steadily abandoned her. Her caregiver's "wish list" included:

- A legislative mandate for coverage of incontinence supplies, which can cost $1500 per month for an adult.
- Assistance with transportation to and from visits to medical service providers.
- Partial financial assistance for home care and/or 2 weeks respite care per year. Permit states to set up grants for respite processes.
- Respect for the role of family caregiver within the health care system.

"Family caregivers are de facto care coordinators and patient advocates." They also represent a $300 million dollar value for the US health care system – a critical resource! Family caregivers need more support. Most are working women (typically 46 years old and not living with the patient) whose salaries are 15% less, and whose out-of-pocket costs are higher, than their non-caregiver counterparts. In addition to financial support, they need respect from their employers and education on how to interact constructively with the health care system.

Clinical Practice Perspective

Michael O'Dell, MD, MSHA communicated the frustrations of "frontline" providers, in particular a system that does not support the essential components of chronic care – patient-centeredness and coordination. "Physicians do not decide to get up in the morning and provide bad care. Many have to see 24 patients a day before they take home any pay to support their families."

Dr. O'Dell acknowledged the gap between the care currently provided to persons with chronic illness and optimal care for these conditions. Although physicians innately desire the best care for all their patients, they are often constrained by a lack of resources and by the health care system's focus on acute illness.

Communication systems are lacking for most providers, and the ability to coordinate care is dependent on an effective communication system. A practice that sees 1200 diabetes patients needs a registry (ie, a system that allows clinicians to identify patients who haven't come in for a visit or who haven't had an important test).

In response to a request for help in understanding why physicians "need reward for doing the right thing," Dr. McClellan explained that when physicians take steps to improve their performance (eg, registries, integrated care) they *lose money*. Dr. O'Dell added that the health care system does not pay for care coordination. It does not train physicians to create registries, to do measurements for improving care, or to make systematic changes in clinics. "The system should pay doctors to learn how to change their practice of medicine and to put those changes in place."

Employer Perspective

Craig Barrett brought multiple perspectives to the discussion – those of a large employer, a leading technology company, and a concerned consumer. He expressed disappointment in the employers who have failed to take advantage

of the abundance of readily available health information technology (eg, personal health records [PHR], electronic medical records [EMR], electronic health records [EHR]) that would improve health care and reduce associated costs.

The business community often takes the attitude of, "Let the government pay," when, in reality, the government is *us*.

Andy Webber (President and CEO of the National Business Coalition) asked what it would take to motivate the employer community and what actions employers might take immediately. Among the suggestions offered by Mr. Barrett were:

- Create in-house clinics in large (ie, Fortune 500) companies.
- Provide PHRs for employees. Intel has partnered with several other large employers to pilot a program whereby PHRs will be provided to all employees.
- Use purchasing power when negotiating with health care insurers and suppliers. Send a strong message that hospitals and health care systems must have certain capabilities (eg, EMRs that interface with PHRs) as a condition for future business.
- Provide choices of health plans (eg, plans with health savings accounts).
- Support culture change with respect to caregivers (eg, pay for emergency home care, assure job security when benefits are used).

Summary of Key Messages from Panel I:

- The health care system is undergoing a fundamental shift from reactive "sick care" to proactive "well care."
- Patients can be a strong force for change. Consumers and insurers must demand change.
- Patients and consumers must be engaged and empowered via choices that yield value.
- As the system becomes more patient-centered, reimbursement must be realigned to promote coordinated care and eliminate barriers to communication.
- Family caregiving must become integrated into the health care system (eg, facilitate continuity across various care settings, help caregivers to navigate the system, broaden the focus to include family and social aspects of a patient's condition).
- Employers can begin by implementing benefits based on value, giving consumers the opportunity to save.

II. CURRENT TRENDS AND CHALLENGES

Panelists:

Carmella A Bocchino, MBA, RN
Executive Vice President
Clinical Affairs & Strategic Planning
America's Health Insurance Plans (AHIP)

Tracey Moorhead
President & Chief Executive Officer
DMAA

David Lansky, PhD
Senior Director, Health Program
Executive Director, Personal Health Technology Initiative
Markle Foundation

Steve Agritelley
Director, Product Incubation & Prototyping
Intel Health Research & Innovation Group

With a focus on the questions, "What is working?" and "What could we be doing better?" Ms. Dentzer asked these panelists to share their experiences and insights regarding the management of chronic care today.

Health Insurance Perspective

Carmella A. Bocchino, MBA, RN discussed the positive impact of current information technologies on the effectiveness of disease management (DM) programs and the importance of standardized data, common templates, and portability standards for PHRs.

Americans are living longer than ever with chronic conditions that were virtually untreatable 50 years ago. With more Americans affected by chronic illness, the goal is to design and implement comprehensive programs that meet the full spectrum of individual patient

needs, improve their quality of life, and enable them to maintain the highest level of self-sufficiency.

Five years ago there would have been a separate program for each chronic condition. Because most people with chronic conditions have 2 or more overlapping conditions, today's programs address multiple chronic diseases. In addition to health coaching and self-management techniques, some programs include new technologies that monitor patients in their homes.

Technology has become very integrated. Studies show that a patient forgets instructions 5 minutes after leaving the physician's office. Today, home monitor technology is available to connect patients with their physicians' offices, enabling interaction and outreach to the patient if, for instance, the patient's weight or blood sugar is not controlled.

One of the biggest challenges in coordinating care for a person with more than 1 chronic condition is that he or she sees 4-5 different physicians and receives over 50 different prescriptions. A potential solution lies in equipping patients with PHRs that are programmed with a common template. The data, entered by the patient in a standard format, would be compatible with the electronic systems of all insurers, enabling the patient's medical history to move with him or her. AHIP has successfully tested portability standards between 5 health plans.

Another obstacle is getting physicians to use technology. Although more physicians have installed EHRs, many use only 10% of the functions. Health insurers are beginning to reward physicians for doing more than electronic billing (ie, entering clinical data). "No physician believes that he or she is providing low quality care until they are shown the data."

Responding to a question regarding what is on the horizon in health technology, Ms. Bocchino envisioned an information system wherein glucometers will "talk" to insulin pumps and PHRs.

Disease Management Perspective

Tracey Moorhead built on the discussion of the transition from "sick" care to "wellness," observing that population health management represents a new phase in the evolution of DM. DM focuses on identifying and intervening with populations who are "at risk." Today, employers are demanding a total population approach with healthy lifestyle programs (ie, educational interventions) that target preventable conditions such as obesity. The impact of these programs in avoiding or delaying the onset of other chronic conditions can be significant.

Ms. Moorhead explained the distinctions between population management and DM and described them on a continuum as summarized in Fig 1.

Effective, population-based health improvement programs (ie, health maintenance, wellness, DM) help people to effectively prevent, delay, and manage chronic conditions. These are proven approaches that can benefit multiple stakeholders – from purchasers to consumers to health care professionals - by ensuring proactive, coordinated, and high-quality health care.

Population Management→	DM→	Intensive Case Management
Target: General population	**Target:** Subpopulation identified with risk factors for specific conditions	**Target:** Subset of DM population with severe disease and/or high costs.
Example: Wellness and healthy lifestyle programs offered to general population.	**Example:** Diabetes DM program offered to health plan members with specific diabetes risk factors.	**Example:** Individualized program for patients with end-stage renal disease secondary to diabetes.

FIG 1. Care continuum.

The challenges for DM will lie in

- Proving value to employers, Medicaid, and Medicare in terms of financial return on investment (ROI) and quality.
- Developing and adopting consensus guidelines for population management.
- Fostering coordination and collaboration in physician offices that lack sufficient staff and financial resources. "The Chronic Care and DM models work well together . . . DM seeks to fill the role of coordinator."

"The term 'disease management' is self-limiting. It does not reflect the full range of services that we're beginning to address."

Health Information Technology Perspective

Among the key trends noted by **David Lansky, PhD** is the successful application of the Chronic Care Model (CCM) in some small-scale programs. CCM brings informed, activated patients together with practice teams. There are a number of small- to medium-scale ongoing projects; for instance, Kaiser-Permanente is helping patients communicate with doctors. These small projects have demonstrated integration across systems.

Another promising trend is the PHR that would enable tests to be performed in the home environment and communicated to the health care team. The problem arises with getting in-

Global Perspective on Ethnographic Research

In 2002, Intel assembled a team of social scientists to study how people experience aging and the inevitable decline in health status across the world's cultures. Common themes emerged from this research on aging populations in the United States, Great Britain, Sweden, Germany, France, Italy, and Spain.

* Elderly people are generally receptive to health care technology.
* Most want to remain engaged in their usual activities.
* Most elderly people value their social connections.
* Although the definitions vary, most elderly people want to maintain "independence."
* Many find it difficult to accept and adapt to changes in health status.
* Family caregivers play a vital role in helping elderly people maintain a high quality of life.

Based on the knowledge gleaned from this research, new technologies can be designed with a focus on the needs of aging adults, their clinicians, and family caregivers. The next phase in global ethnographic research will take the scientific team to Latin America and Asia, where different cultural contexts and expectations about aging are likely to precipitate more technology development.

New technologies require proof in the form of long-term significant pilot studies with industry and government funding. In response to the age wave in Europe, Intel partnered with the Industrial Development Agency (IDA) Ireland on a technological assessment for independent living. A multimillion dollar research initiative was deployed in Ireland aimed at developing innovative technologies that help people "age in place" wherever they choose to live. The TRIL Centre (Technology Research for Independent Living), one of the largest research efforts of this type, focuses on 3 key areas: 1) improving social health and community engagement for older people, 2) detecting and preventing falls in the home, and 3) helping those with memory loss to maintain their independence.

formation from the laboratories, pharmacies, and physicians into the PHR. Fragmentation continues to pose a huge barrier in the system and, until we begin to pay for coordination and good outcomes, there will be little interest in sharing information.

The challenges include integrating "silos" in the system and improving outcome measures. "People with chronic illness must deal with it 24/7 – not just when they visit a health care professional." It is imperative that we:

- design health care around the person and the family,
- use a radically new approach to health care financing,
- insist on the deployment of technology, and
- redefine what constitutes "health care."

Another challenge is breaking the barriers of standards and policy. "The 'right of consumers to get information' does not mean that they are getting it electronically." EHRs and EMRs continue to be built and viewed as proprietary systems. We have the technology to move information from one place to another . . . we need the motivation.

We need holistic payment change. The current pay-for-performance measures are "granular" and reveal little about patient outcomes (ie, if patient is doing well).

Responding to a question regarding how to get all disparate electronic systems connected, Dr. Lansky said that it will take a national health information network – a "network of networks" and a policy that is clear and explicit so that all stakeholders know what is happening with health information.

Aging and Technology Research Perspective

Steve Agritelley described Intel's 8-year social and ethnographic research, sharing insights and information on the technologies being developed to affect behavior change. The research team identified unmet health care needs of older adult subjects by spending significant time developing relationships, understanding their lifestyles, work routines, and the

What's working?	*What could we do better?*
Social science and ethnographic studies (eg, those conducted by Intel) have lead to the development of technology to help affect behavior change.	• Need large-scale studies to prove effectiveness of technologies and to demonstrate ROI. • Need appropriate funding for research on technologies.
Small-scale successes with CCM and care coordination initiatives.	• Integrate "silos." • Improve outcome measures. • Adopt an information policy that permits seamless exchange of information. • Align Medicare payment policies with initiatives.
Beginning to address multiple chronic diseases in non-silo fashion.	• Create more programs that look at the full spectrum of conditions. • Common template for PHRs.
DM	• Transform to population management and prove value. • Focus on patient education and behavior change initiatives to avoid exacerbations. • Encourage more patient-centered innovations. • Provide training for practicing physicians (and revamp medical school curricula) to equip them with necessary skills.

FIG 2. Summary of key messages from panel II.

overall needs of patients, family caregivers, doctors, nurses, and hospital and health plan administrators. Thus far, the researchers have recorded observations and gathered data from over 1000 households in 20 countries.

Key among their findings was a shift from a "reactive" to a "proactive" model. We are coming to grips with the reality that chronic conditions must be monitored 24/7; for example, diabetes must be managed day-to-day/hour-to-hour. We must focus on helping patients to *want* to manage their own conditions. The glucose meter is an example of an unobtrusive, interactive technology can be used to affect behavior change.

Intel's research prototypes have focused on engaging patients in technology by means of easy, understandable, patient-operated devices that help them monitor and improve their health. By extension, such devices also help health care organizations to deliver higher quality care more efficiently. For example, one technology prototype enables patients with Parkinson's disease to perform 6 important tests at home on a weekly basis rather than at a laboratory or physician's office every 3-4 months.

A major challenge lies in the fact that behavior change is difficult to achieve – and more difficult to sustain.

III. INNOVATIONS AND POSSIBILITIES FOR IMPROVING CARE OF CHRONICALLY ILL AND AGING POPULATIONS IN THE FUTURE

Panelists:

William L. (Larry) Minnix, Jr., DMin
President and CEO
American Association of Homes and Services for the Aging (AAHSA)

Carol Raphael, MPA
President and CEO
Visiting Nurse Service of New York (VNSNY)

Thomas Lee, MD, MSc
Network President for Partners Health System
CEO for Partners Community HealthCare
Boston, MA

Allen Woolf, MD
Chief Medical Officer
CIGNA Group Insurance

Mariah Scott, MBA
General Manager
Intel Digital Health Group, Personal Health Platforms

From where we are today—"at the crossroads"—Ms. Dentzer asked the third panel to look 5 years into the future and to speculate on likely changes and improvements. The panelists infused optimism and hope into the discussion, speaking about "high-tech" and "high-touch" innovations and possibilities for the future in meeting the challenges posed by chronic care and aging.

Long-Term and Home Care Perspectives

"Transformation of chronic care design, delivery, policy, and finance is the key to having a health care delivery system in America that is healthy, affordable, and ethical." **Larry Minnix, DMin** reflected that 50 years ago we had large, institutional homes for "incurables." Today we are renovating these facilities to new uses or demolishing them entirely. This is a huge transformation.

He described a nationwide trend toward "Green House Homes," a transition that sees deinstitutionalization of large nursing homes into smaller, cottage- or home-like settings for the care of chronically ill and elderly people. (More information at: <http://ncbcapitalimpact.org>.) Such settings are putting the "home" back into "home care" and, in doing so, improving satisfaction among patients and their caregivers.

Innovators in long-term care are also cultivating a healthier culture for facility employees and volunteers by focusing on respect for employees, fair compensation, and opportunities for growth and development. "The culture is the reason caregivers come to work."

The vast majority of nursing care is provided by family members in the patient's home. Acceleration in the development and deployment of simple technology that enables people to re-

main at home (eg, telemonitoring, palm pilots for charting, PHRs) will be enormously helpful.

Form follows finance. To provide more holistic home health care, we must work toward a different (Medicare) financing scheme wherein long-term care financing is linked to the person rather than the service provider.

Carol Raphael, MPA introduced several new high-tech/high-touch initiatives that are likely to be replicated over the next 5 years. Chief among these is a VNSNY program that provides telemonitors (programmed in 8 different languages) in the homes of 400 patients with heart failure and hypertension. First year outcomes show a 14% decrease in hospitalizations and a 12% decrease in emergency room visits. The agency's 2000 nurses use mobile wireless computers that contain patient records. The next step will be to connect these computers to the telemonitors.

A second initiative involves a group of Medicare Advantage patients, many of whom have 4-5 chronic conditions. Falls occur in more than one third of these patients over the age of 65 and in 50% of patients age 80 and older. The initiative uses active care management and safety checks within an interactive system of physician practices and visiting nurses to help reduce the incidence of falls through simple, high-touch means such as checking on patients' eyeglasses, medications, balance, and gait.

Almost half of the nation's population is living with 1 or more chronic conditions that cannot be cured. One of health care's most vexing problems in caring for patients with chronic conditions is that they see many different providers in many different settings. "We must reinvent the way we view and pay for care, focusing on models that promote prevention and integration of care across multiple sites." In all of these efforts, technology is an important enabler.

Responding to a question regarding the emerging trend toward pay for performance (P4P), Ms. Raphael noted that, currently, measures tend to be distinct for each sector. We must move toward integrated metrics that focus on patient outcomes wherein *all* sectors bear responsibility.

Health Plan Perspective

Thomas Lee, MD, MSc envisioned a safer, more efficient, better integrated health care delivery system in 5 years. New strategies will address variability at the individual physician level, increased efficiency through lean management technology, and comprehensive care designs for complex patients and end-of-life. These initiatives will require care coordination teams and payment reform.

Creating a safer, more efficient, better integrated system within 5 years will not be easy. New strategies adopted at Brigham/Massachusetts General Hospital fall under 3 major themes, including: 1) addressing variability down to the individual physician level, 2) building greater efficiency into health care delivery processes (eg, lean management techniques), and 3) redesigning care for specific categories and conditions (eg, end-of-life care, complex patient care). Strategies that will be used in care redesign are:

- A team care approach that links the clinician, the family caregiver, and the patient
- Organization of providers - convincing physicians that they cannot do it alone
- Payment reform that improves patient outcomes and reduces costs without creating undue resistance from clinicians
- Integrating end-of-life care into training programs – for example, Geisinger Health System nurses are empowered to call Palliative Care consults in the intensive care unit, enabling family discussions to begin sooner. "The program puts more energy into the process when the patient is in the hospital – and reaches further out when the patient is at home."
- Technological innovations – Building into the system a process for identifying patients with increased risk for a long and/or difficult disease course. When identified patients come into the hospital, care coordination teams can spring into action (eg, family meetings).

In the next 5 years, **Allen Woolf, MD** forecasted that health coaching will be a major trend as health plans will begin to address risk factors and put programs in place. Once high-

risk patients are identified, health coaching efforts will be directed at helping patients to understand the implications of their behavior. The science of behavior change will become increasingly important in helping to personalize patient information and to equip patients with the skills necessary for making and sustaining behavior change.

Technology has enormous potential as an enabler. Technological devices can help patients understand what health behavior change means to them; for instance, video game technology can be used to engage younger people in understanding their health and how it can help them to make necessary changes.

Health plans will seek creative solutions – both high-touch and high-tech. They will employ more sophisticated predictive modeling. There will be barriers to adopting some techniques including:

- Potential patient privacy issues
- Financing
- Time for proving effectiveness, and
- Access to technology for the uninsured.

The bottom line, according to Dr. Woolf, is "a fundamental transformation from health insurer to health services provider."

Health Technology Perspective

Looking to the future, **Mariah Scott, MBA** said that she is encouraged by the apparent convergence around a changing model of care with the patient as its focus and technology as a great enabler. "Technologies are available today to get the right information to the right patient at the right time." Over the next 5 years, new technologies for aging and chronically ill individuals will need to evolve to engage patients in making and sustaining positive health behavior changes. "Solutions should be patient-centric, that is, built based on the needs and abilities of the people who will use them."

A recurring theme has been the urgent need for more cooperation and collaboration to bring about a working "ecosystem" for the management of chronic illness. Technological solutions are uniquely suited to facilitating such a transformation in our fragmented system.

Ms. Scott introduced another potentially powerful concept – the potential of using technology to support clinical decision making for physicians and personal health decision making for patients and their families. "Physicians will begin to use the intelligence in information systems to make better decisions. Consumers will benefit from getting information at the right time – the "teachable moment" – to help sustain positive health behavior change."

Summary of Key Messages from Panel III

The "wish list" that developed over the course of the discussion included:

- Care coordination teams to empower the health care delivery system.
- Technology together with "human touch" and active listening.
- Technology as a key enabler across all initiatives.
- Deinstitutionalization and a new "home"-based long-term care model.
- Inroads in health coaching.
- Payment reform – get behind change with incentives and rewards.

CONCLUSIONS

There were a number of overarching themes that emerged throughout the summit. These are summarized below.

1. Health care must become more patient-centric

- We must improve and expand patient education regarding wellness, prevention, delaying the onset of illness, and managing chronic conditions.
- We must pursue more behavior change initiatives.
- We must encourage the development of tools that engage patients in self-care (eg, PHRs, telehealth initiatives).

2. Initiatives are needed across all provider groups

- **Family Caregivers:** Caregiving must be better integrated into the health care system. The focus must be broadened beyond the patient's clinical condition to include the family and social network. Family caregivers must receive more assistance in navigating the system.
- **Physicians**: Physicians must become better educated about and more sensitive to the role of family caregivers. Practicing clinicians, as well as those in medical schools, must receive more training in technology and systems. The health care reimbursement system must be realigned to reward physicians for coordinating care and using technology.
- **Health Plans and DM Companies**: Encourage a commitment to integration, adoption of consistent performance measures, and adoption of a consistent template for PHR.
- **Health systems**: Focus on integration, care coordination, and improving patient safety is imperative.

3. **As major financial stakeholders, employers have the power to drive change.** Employer initiatives suggested at the Summit include:

- Providing PHRs for employees.
- Demanding EHRs/EMRs from contracted hospitals and pharmacies.
- Offering wellness programs and screenings for all employees and DM programs for employees with chronic conditions.
- Assuring that the company culture recognizes the value of a family caregiver's role.

4. **Change is necessary at the government policy level**

- Consider policy changes that will alleviate the burden on family caregivers; for example, coverage for incontinence supplies, grants for respite care.
- Pay providers for coordinating care.
- Pay physicians for installing, learning, and using technology.
- Realign financing to follow the patient rather than the provider when determining care settings for elderly patients with chronic conditions.
- Fund research on health information technologies that have potential for improving care and reducing overall costs of caring for people with chronic illnesses.

In his closing remarks, Mr. Barrett reflected that, although it is an *information* industry, health care is still "in denial" with respect to making the necessary transition to information technology. The aging population and the imminent boom in chronic conditions have set the stage for a health technology transition from hospital mainframe to an individual's PHR.

AUTHOR DISCLOSURE

The Department of Health Policy at Jefferson Medical College received compensation for editorial management and coordination efforts related to production of an enduring material based on the proceedings of the "Chronic Care at the Crossroads" summit. Janice L. Clarke, RN is a senior medical writer employed by the Department.

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Web Sites of Interest

National Family Caregivers Association (NFCA) home page: <http://www.nfcacares.org>.
America's Health Insurance Plans (AHIP) home page: <http://www.ahip.org>.
American Association of Homes and Services for the Aging (AAHSA) home page: <http://www.aahsa.org>.
Visiting Nurse Service of New York (VNSNY) home page: <http://www.vnsny.org>.