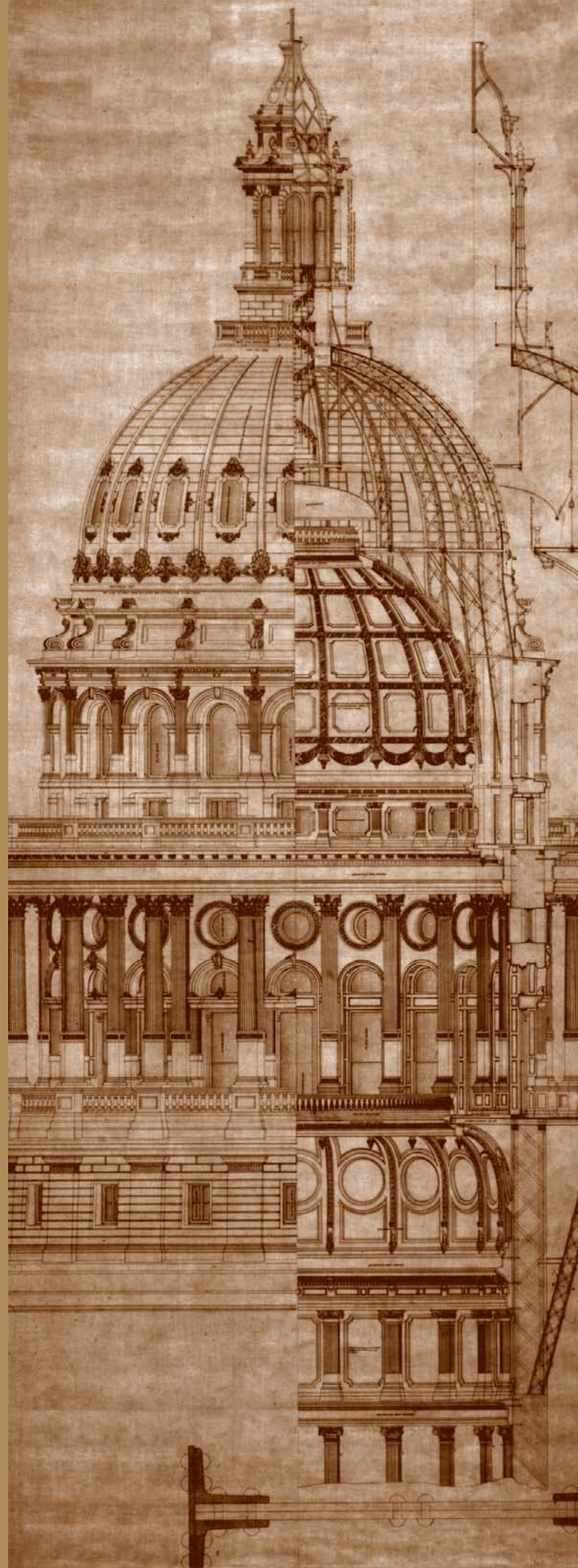


What is the Economic Value of Health & Health Care?

*Foundation
For
American Health Care
Leadershipsm*

June 17th-18th, 2004

Westin Michigan Avenue, Chicago, IL



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Executive Summary

The Foundation for American Health Care Leadership (FAHCL) is an affiliate of Wye River Group on Healthcare, a non-partisan 501c3 catalyst organization that advances leadership and collaboration to promote positive health system change. We thank the many individuals and organizations that provided financial and intellectual resources to launch the Foundation in 2004.

FAHCL was created in response to an expressed need for a communications loop that could link health and business leaders at the community level with policymakers at the national level. The Foundation's mission is to inform and shape national public policy by drawing on ideas that enjoy broad support among community leaders from across the spectrum of health care sectors and viewpoints. These community leaders offer valuable insight and experience in "making health care work" at the local level. Their unique value to policymakers is their ability to reflect on healthcare issues and critique proposals from a practical operations viewpoint.

There is no issue more practical or pressing than the question of whether Americans are receiving adequate value in return for our nation's extraordinary investment in health care. It is a complex issue to address and one that has received little systematic analysis to date. But increasingly employers, consumers and taxpayers are looking for – even demanding – answers. The Foundation designed its inaugural meeting in June 2004 to examine how we might begin to determine the economic value of health and healthcare in this country.

It is widely known that health care spending represents nearly 14% of our Gross Domestic Product. But what does our country – and in particular, what do health care purchasers – receive in return for that spending? Until the health care industry can systematically measure, report and analyze the value it provides, its impact on Americans' quality life and longevity and its contribution to the economy will not be fully appreciated.

This new reality is becoming apparent to all of the healthcare sectors. Hospitals, physicians, pharmaceutical companies, health plans and others recognize the need to demonstrate value to purchasers, employers and consumers if they are to compete and thrive in the 21st century healthcare environment. Each must demonstrate in measurable, transparent ways that they are accountable for their contribution to society and the economy. This new approach to the business of healthcare represents a major change in organization, financing and delivery. It also requires a transformation in the culture of organizations and individuals.

For the Foundation's inaugural meeting, we requested the assembled health care leaders to consider current health care investments in terms of their socioeconomic benefits. We asked them to reflect on their roles in optimizing the health of the population through the investments that are made in health care. We also asked them to consider the roles of government and industry in maximizing the potential for individuals to adequately meet their needs and receive value from their health care encounters. In other words,

we framed a "conversation for action" that focused on the responsibility of the "system" to create the foundation or framework for economic value in health care.

The overall focus of the meeting was to address this question: What is the economic value of health and health care? In a nation that spends more than \$1.7 trillion on health care each year – far more per capita than any other country on earth – it is vital that we think about this. Do we spend too much? Do we spend too little? How do we determine the value we receive from our investment? To drill down on this subject, we looked at several specific questions regarding the economic value of health and health care. These questions, and the discussion they received, are summarized below.

Are we getting the greatest return on our extraordinary investment in R&D for medical technology and pharmaceuticals?

Health care purchasers and employers have grown increasingly concerned about the expense of new medical technologies and pharmaceuticals. The introduction of new products usually causes an immediate spike in utilization, which increases costs for payers. Yet there is relatively little information available to determine the value of these new technologies and pharmaceuticals. As a result, many people say we need to move toward a more transparent value proposition with regard to new products.

Some health care sectors, such as the pharmaceutical industry, are already devoting increased resources to demonstrating value, mostly in response to pressure from payers, providers and consumers. But some doubt whether this type of evaluation should be left to

the private sector. A new structure – one that involves the federal government – may be needed to evaluate new products and provide information to payers and consumers. Potential models for this new structure are the National Institute for Clinical Effectiveness (NICE) in the United Kingdom and the former Office of Technology Assessment in the U.S.

A significant number of health plans and employers appear interested in the idea of implementing a cost-effectiveness hurdle for FDA approval of new products. Those who support this view say the value assessment needs to occur much earlier in the development process than it does currently. Including a comparative effectiveness analysis in the initial approval process would be less expensive and more helpful than doing one later on, after FDA approval.

But others are opposed to the idea. They note that the information available on cost-effectiveness prior to FDA approval is very limited. Therefore, any cost-effectiveness threshold that the FDA applied would be entirely arbitrary and could not reflect the varied preferences of all patients. They say it is either the payer or the patient-doctor locus that should be making decisions based upon cost and value, not the FDA.

However, that being said, the FDA can and should take an active role in helping to create the information that informs decisions on value in the post-marketing environment. Indeed, the FDA has been working to ensure that as the health care system moves to adopt electronic medical records, it will be able to take advantage of this opportunity to gain more information about how the products it regulates function in the real world.

Regardless of who gathers the data, the consensus is that value-based purchasing is likely to become even more prevalent. Therefore, there will need to be better value measures and more transparency of measures. But measuring the value of new products, and disseminating that information to payers and to the public, is complex and will require a sophisticated response. At this time, there isn't a clear constituency that will push for more systematic evaluation of health care products and services. Until there is such a constituency – either in the academic medical community or elsewhere – it will remain difficult to convince the federal government to increase its support for evidence-based evaluation of medical practice.

How do preventive services, chronic care management, and broad access to basic health and health care services get evaluated within the economic value rubric?

Chronic diseases now account for more than 75% of all U.S. health care expenditures. But most of that spending is on treatment, with very little on prevention. Our nation invests only about \$1.25 per person per year on prevention for chronic diseases that are the leading causes of death, including cancer, heart disease and diabetes. Across the spectrum of health care stakeholders, there is a growing consensus that this needs to change.

If opportunities to prevent and control chronic diseases such as cancer were fully seized and realized, millions of lives could be saved. But currently there is little incentive for health care providers to offer the range of preventive services and care management that could be truly useful to patients. Providers have virtually no financial incentive to follow prevention protocols or to

collaborate with other providers, even when they are serving the same patient, at the same time, for related conditions.

Similarly, purchasers experience the worst return on their investment in care for patients with multiple chronic conditions, particularly those who are frail and have multiple, complex care needs. There is growing support for developing new quality measures and financial incentives that reward prevention and collaboration among providers in the interest of total health improvement. Given that Medicare and Medicaid are the principle payers for chronic illness care, the federal government needs to provide leadership by establishing new financial incentives that will change the rules of the game.

Prevention needs to become a national policy objective. To create real change, policymakers have to put financial incentives behind a new vision of care – one that elevates the importance of prevention and chronic care management. Providers would behave very differently if Congress would establish national goals for reducing incidence rates for specific chronic illnesses and related disabilities and use this as a foundation for making budget decisions, and if all of health care was accountable for reducing the incidence and prevalence of chronic disease and disability rather than simply reducing the cost of their specific segment of operation.

What is the rationale for investing in information technology, and who should make the investment?

There is shared recognition that broader application of IT offers tremendous potential in increasing the value of health care. The full application of IT is expected to be a major

contributor to increased longevity and quality of life during the next fifty years. Employers are very interested in seeing health care explore what IT can do to raise quality and reduce cost. But the need for substantial capital investment represents a significant challenge to many in the health care industry, particularly small providers.

Among IT's anticipated benefits is its ability to reduce medication errors, which are now responsible for approximately 7,000 deaths each year, according to estimates by the Institute of Medicine. IT's ability to eliminate a sub-sample of those deaths through error alerts and other means would provide an economic value estimated at \$200 million to \$400 million each year.

Similarly, IT has the potential to increase the likelihood that chronic disease will be appropriately diagnosed and treated. A recent Pacificare report finds significant implications for Medicare in terms of chronic care and the leveraging of IT. According to the report, IT-driven chronic care improvements could reduce hospitalizations by about 50 percent. As the VA health system has found, implementing an electronic health record across the world-wide military health system has provided real value to its patients.

While there is widespread agreement on the need to implement information technology across health care settings, there is uncertainty about who should pay the cost. One viewpoint is that the federal government should take a leadership role in IT investment. There is precedent for this. The federal government invested in health care infrastructure in the past, when local communities in rural and urban areas could not come up with funding on their own to build needed health care facilities such as hospitals. From a policy standpoint, a potential trade-off is for the federal

government to invest in IT in return for increased transparency of reporting.

In response to this proposal, it was noted that due to increasing federal budget deficits, it is doubtful that the federal government has the ability to invest in this level of transformation. On the other hand, the United Kingdom, which has a fiscal situation that is not any rosier than that of the U.S., has nevertheless made a substantial investment in IT in recent years. European countries are also looking to make strides in this area.

There is a note of optimism in Washington, where elected officials of both parties are advocating for improving IT infrastructure in health care. The White House has recently appointed a health information technology czar and there are bipartisan proposals in Congress to invest in IT. This year, the Agency for Healthcare Research and Quality is providing \$50 million in grants for implementing IT and is doing some statewide demonstrations in interoperability.

As for the private sector's role, there is concern that providers feel pressured to pay the cost of implementing IT, without receiving any clear financial return. Although many hospitals may have enough capital to invest in IT, most small physicians' offices do not. Payers are also unsure whether investment in IT would reap savings. The disconnect between who does the investing in IT and who is likely to get the return is an issue that must be addressed in order to move forward with an agenda for improved IT infrastructure.

On the other hand, there are examples of health care stakeholders and employers investing together in joint IT projects. One project underway in Albuquerque, New Mexico, is the implementation of a new community-wide data

warehouse that tracks claims data for patients with chronic diseases such as diabetes and depression. The local employer community provided significant support for the project, which they hope will improve care for workers with chronic diseases and thereby boost their productivity in the workplace.

How do we evaluate the contribution of a healthy citizenry to productivity and economic development at the community level?

There are a number of suggestions for how to evaluate the contribution of health and health care to our society and economy, but first we need to recognize that there is, in fact, a contribution. Currently, health care is thought of only in terms of its cost – to employers, to consumers and to taxpayers. But in fact, there is a substantial return on this investment, not only in terms of individual quality of life and longevity but also worker productivity and local economic development. We need to start changing the mindset in our society to think about the full range of benefits that are provided by a flourishing healthcare industry.

One way to start getting people to recognize the benefits of health and health care is to measure those benefits. One suggestion is to quantify what it means for the economy and for employers to have a healthy workforce. The U.S. military, for example, measures the effectiveness of health care by looking at how quickly soldiers can return to duty. A similar measure could be used by the employer community. What they are likely to find is that because of investments in health care, workers are able to return to their jobs healthier and earlier than they used to, which presumably has a significant benefit in terms of productivity.

Another suggestion for evaluating the contribution of health care is to look at the impact of health care expenditures on economic development. Health care is one of the main economic engines in most communities – particularly in rural areas, but also in major cities. Hospitals alone employ around 5 million people, making them the second-largest private employer in the United States. They are a consistent source of job growth – even in times of recession – and their purchases provide a significant ripple effect throughout the local economy.

At the national level, health care is one of the most vibrant areas of economic growth. There is evidence to suggest that additional expenditures on health care add value to the economy. This is certainly true of developing countries, as has been documented by the World Health Organization.

However, a concern is that once health care spending reaches a certain point, it stops adding value to the economy and instead becomes an impediment to economic growth. It appears that the U.S. may have reached that point now that health care costs are taking an increasing toll on the competitiveness of U.S. businesses in the global marketplace. This is a critical time for employment-based health care coverage. Given the cost pressures they face, employers need to see value in return for their spending on health care if they are to continue providing coverage for their workers. This puts responsibility on the health care industry, now more than ever, to be able to make the case.

Two sides to the “value equation”

In summary, the Foundation’s inaugural meeting focused on how the health care system can create a framework so that individuals will receive “value” from their health care encounters. There is a lot to

be done – from implementing cutting-edge information technology to ensuring access to appropriate preventive care. But there is another side to the “value equation” – what Americans can do for themselves to maintain their health and well-being. A growing body of literature suggests that the greatest opportunities to improve health outcomes in the U.S. are in the area of behavioral choices and patterns. It is this other side of the value equation that the Foundation will explore at its meeting in December 2004.

Recommendations for Next Steps

This summary is a distillation of potential actionable next steps for the Foundation and its allies. It is not anticipated that all of these proposals will be undertaken. Rather, we will prioritize activities based on feedback received from the Foundation’s Advisory Board.

Information, Infrastructure and Incentives

Information

Information about the Value of Products and Services:

★ **Challenge:** Payers and consumers currently lack information about the relative effectiveness of new pharmaceuticals and technologies, which makes it difficult to judge their value.

FAHCL proposal: To convene a meeting of public and private stakeholders, including FDA officials, to discuss whether the FDA or another agency should replace the former Office of Technology Assessment with a new entity to evaluate the comparative

effectiveness of new products (possibly modeled on the United Kingdom’s National Institute for Clinical Effectiveness, or NICE).

★ **Challenge:** Payers, providers and consumers lack outcomes that would help them evaluate common medical practices and make informed decisions. There is a need for more federal support for outcomes research and a systematic policy for evaluating medical practice. More engagement by Academic Medical Centers in this type of research would be useful.

FAHCL proposal: To convene a discussion among interested stakeholders and policymakers about developing a strategy to increase support for outcomes research from the federal government and among the medical community, and to consider designing a programmatic response along the lines of the former Patient Outcomes Research Team (PORT) projects, which were under the auspices of the Agency for Health Care Policy and Research (AHCPR).

★ **Challenge:** Currently, there is not a venue that can provide a swift and balanced resolution to the many difficult social questions raised by rapid advances in medical science, technology and genomics.

FACHL Proposal: To work with appropriate parties in the public and private sectors to define and advance the idea of a “science court” that would be responsible for weighing the merits of various medical and administrative technologies and their applications. As a relatively apolitical venue, a “science court” could be an effective way to strike a balance between the public interest and the interests of the industry.

Information about Prevention and Health Promotion:

- ★ **Challenge:** An economic case for increasing the emphasis on prevention and health promotion in order to reduce chronic disease has not yet been made, either to policymakers or the public.

FACHL Proposal: To work with economists and others to develop and publish “best thinking” and “economic modeling” to further this case. We should evaluate the work of Oxford Vision 2020 where it is relevant.

- ★ **Challenge:** There is potential for the federal government to work with private entities on a social marketing campaign on prevention education, but this potential has not yet been fully explored.

FACHL Proposal: To work with the National Quality Forum, the Centers for Disease Control & Prevention and marketing and communications experts to develop a campaign. We should explore ways to build on private sector interests modeling profitable business opportunities.

Infrastructure

Information Technology:

- ★ **Challenge:** A major barrier to increased IT infrastructure is the need for investment. Many providers, particularly small ones, don't have the resources to invest in IT.

FAHCL proposal: To convene industry leaders and others to outline recommendations for financing, particularly for small providers,

through loan programs, tax credits, private/public/community co-ops, etc.

- ★ **Challenge:** The technology now exists to successfully implement Community Health Information Networks (CHIN), which have the ability to spread access to electronic medical records among a variety of institutions.

FAHCL proposal: To research models for implementing CHINs and explore the potential for building on common elements in current efforts by trade associations such as AMGA and professional societies.

Delivery Models:

- ★ **Challenge:** Rationalizing treatment delivery will help us get the most out of our health care delivery system.

FAHCL proposal: To identify and report on best practice models with regard to deployment of personnel, community outreach, disease management, “virtual networks,” etc., looking at both the public and private sectors.

FAHCL proposal: To investigate and report on the VA health system's experience in providing better quality health care than fee-for-service Medicare, and at less cost, and to encourage policymakers to examine that experience and its possible implications through demonstrations.

FAHCL proposal: To research the applicable elements of the hospice model and develop recommendations for regional demonstrations that would move the model "up-stream" for chronic care management.

Community Planning:

- ★ **Challenge:** Some good ideas from the past that were not implemented or were abandoned may have just come at the wrong time and should be reconsidered.

FAHCL proposal: To research the successes and failures of the community health planning movement and explore its potential application to today's environment.

Incentives

- ★ **Challenge:** Currently, financial and other incentives for providers, plans and patients are not well aligned to encourage use of evidence-based medicine. Pilot projects are underway to reduce unwarranted practice variation and to increase pay for performance, but much more can be done.

FAHCL proposal: To convene a group of stakeholders and economists to explore and report on possible reimbursement models that better align incentives for evidence-based medicine.

Presentations and Panel Discussions

“Setting the Stage – Looking to the Future” ***Presentation by Ian Morrison, Strategic Health Initiatives***

The context for discussing the value of health care is one of rising costs, increased cost-shifting to consumers, and increasingly complex and expensive medical care about which both consumers and payers are being asked to make value judgments.

Americans love high-technology medicine. The pharmaceutical and medical technology industries have invested billions of dollars over the last decade in R&D, which has yielded innovative, expensive medications and interventions. This record of innovation has made a major contribution to our longevity and quality of life. However, there is a potential paradigm emerging where we have very high efficacy and high customization in health care, but no one can afford it.

Americans think society should spend more money on health care. But they want other people’s money spent, not their own. The irony is that while health care is a superior good – meaning that as you get richer, you want to spend more money on it – the money has to come from somewhere.

Harvard economist David Cutler says we could comfortably spend 38% of GDP on health care by 2075, as long as the economy keeps growing. But that money’s got to flow from somewhere – either through bigger payments by employers and consumers, or from higher taxes. As Princeton economist Uwe Reinhardt has noted, at some

point employers are going to stop hiring people because the cost of health benefits outweighs the value of their labor.

Perspectives on value

If you’re really honest in looking at American health care, it’s not a terrific value. We spend an enormous amount of money and we don’t live any longer than the Brits, the Scots, or the Canadians. So you’ve got to ask yourself: Are we really getting value for our money here?

Value, obviously, is in the eye of the beholder and the payer. If you ask the public how good a job various industries are doing in serving the public, hospitals are very highly regarded. But drug companies have fallen in the public regard, largely as the result of the demonizing of the pharmaceutical industry during the last 3 to 5 years. To add insult to injury, health care tops the list of industries that the public wants to see more regulated. If you ask the public whether health care is a good value, the general answer is no, with the exception of generic drugs.

America really values innovation, but I think it’s important that we innovate in a way that people are willing to pay for – both individually and collectively. What we’re seeing with pharmaceuticals is that when people are asked to pay with their own money, they’re trading down from brand names to generics.

I've detected a transformation in the value debate. It's no longer just about containing costs, or just about affordability or prices. It's not just about life expectancy as the outcome measure. It's also not just about doing the best, no matter how much it costs. And it's also not just about health care as an economic base. Value is a multi-dimensional issue that we have to think about and work on.

There is a quest for value and an interest in balancing the competing claims of cost, quality, access and equity under the rubric of a greater value proposition. There is increasing interest and expertise developing on evidence-based medicine. There is also increasing interest on both the public and private payment side in pay-for-performance and value purchasing. And at the moment, we're also trying to "engage consumers."

The role of consumers

One of the reasons that the value question is heightened is that consumers are going to be asked to pay more for their health care. The rationale is that consumers have been progressively insulated from the costs of care. The argument is that consumers would take better care of themselves if they were more exposed to those costs. However, the argument against it is that 5% of patients account for 50% of health care costs, and they didn't necessarily choose that health status. Some of them may have abused their bodies, but a lot of them just got cancer or other diseases.

We know that "skin in the game" matters. Employers often say that we need to get consumers to have "skin in the game." It certainly shifts money around, but whether it saves money overall is unclear. I don't believe it does, quite frankly. And there are some equity issues, because the people who are disproportionately affected by

cost-shifting are the poor and the chronically ill. This trend toward just providing catastrophic coverage is not necessarily a cost containment tool; if you spend just one day in an American hospital you're already over the deductible for most catastrophic plans. There's a danger that only doing catastrophic coverage is a green light for providing excessive treatment, because once you're over the deductible, nobody's managing the decision-making.

The percentage of American health care that is paid out of pocket has actually gone down in the last 10 years, and is only beginning to moderate slightly. It took until 2003 for employers to actually start passing on costs to consumers. So this trend is just in its infancy and is quite dramatic in certain quarters.

The example of consumers and pharmaceuticals

Back in 1990, about 60% of drug costs were paid out of pocket. By 2000, more than 60% of drug costs were paid by insurance. I believe that is why the pharmaceutical industry had the greatest decade in the 1990s, because consumers were largely insulated from the rising cost of medical care. But what we invented was a tiered formulary system so that consumers were gradually asked to pay more for branded drugs, either in co-payments or co-insurance.

We have found in our research that when consumers have to pay their own costs for prescription drugs, they trade down to generics twice as often as they trade up to the brands. The people most affected by substitution are the poor and chronically ill. By the poor, I mean anyone earning less than \$75,000 in household income. We see no difference in our survey between middle-class people and poor people in terms of

their behavior in this regard.

This is starting to lead to adverse health outcomes because people are not taking their medications. Enlightened employers are starting to put asthma drugs in the first tier because they're finding that, otherwise, people turn up in the emergency room 6 months later. And they found it much more cost effective to reduce the barriers to care and medications, rather than put barriers in place. So simply cost-shifting to consumers without sophisticated care management is not the right answer in the long run.

New ways of determining value

The pharmaceutical industry is moving toward a more transparent value proposition right now. We have survey evidence that 80% of health plans and 80% of employers would like to have a cost-effectiveness hurdle for FDA approval. In other words, this would mean looking at the reimbursement side, as well as safety and efficacy. You would have to make sure a new product meets a previously unmet medical need. And then you would have to promote it to everybody, beginning with active payers, including consumers, to get them to pay for it.

I just want to highlight the further dilemma that biotechnology faces. If you think about what has been tremendously successful in the pharmaceutical industry, it is what I would call Roloids for Yuppies. It's medications that are perhaps overused in populations with relatively little indication that that's what they need. | And at the other extreme, we're seeing the emergence of some very expensive, highly effective medications with innovative biotechnologies. With evidenced-based medicine and consumer-based payment, more and more patients would be classified as not needing it,

whereas marketing and demonstrating efficacy to sub-groups would mean more patients classified as needing it.

If you talk to some of the biotech companies, their argument is that it's expensive but it works. And because it works, there will probably be savings elsewhere in the system as a result. Their argument would be that more competition in traditional pharma would allow some of that money to be spent on some of these expensive and elaborate technologies. Quite frankly, the trends in coverage indicate that catastrophic products are going to insulate consumers from the cost of care anyway.

What is clear is that the people who are paying the bill are getting increasingly concerned with expensive technologies and that there are externalities that are troublesome, in terms of payers and purchasers. I cite the stent effect. We have an expensive, effective innovation that essentially crowds out all the profit that hospitals can make on cardiovascular procedures. The real question for a lot of these emerging technologies is whether they can pass the United Kingdom's National Institute for Clinical Excellence (NICE) test of clinical effectiveness, or Kaiser Permanente's test of value in use.

Lessons for other areas of health care

I took this diversion into the world of pharmaceuticals just to say that the emerging world of biotech and advanced therapeutics and the traditional pharmaceutical area have been forced to confront value because of the shift in coverage and the engagement of consumers. I think they're ahead of the curve in some senses, but this is happening for everybody, because the metaphor of pharma is being applied to doctors and hospitals.

For example, the Pacific Business Group on Health and others want to get the same kind of discipline into consumer behavior with regard to selecting physicians and hospitals. So hospitals are going to confront this issue, as is the physician environment.

And the question is: What is value? Is it benefit over cost? Is it access over cost? Is it quality over cost? Or is it all of those? And obviously the question is: Whose benefit? So you have to be really careful about what unit of analysis you pick in this. And is value for money the same as cost-effectiveness? The problem you get into in a value discussion is the problem you get when vendors try to sell to Kaiser. Kaiser says, I'd still like you to cut the price in half, because if you cut the price in half you double the value by definition. It doesn't take away the need for pricing.

What is the future of health care?

Here is a set of four possible scenarios for health care. These are caricatures, not predictions.

Scenario 1: Tiers 'R' Us

This is the scenario we're in right now, which can also be considered the "SUVing" of American health care. Some people have Porsche SUVs, some people have Chrysler SUVs, some people have no SUVs, and we accept that. In fact, we think it's pretty much the way it should be. In this scenario, we pay more for choice and control, but it really challenges the chronically ill and low-income. It does move us toward catastrophic coverage for the sick, and it will save employers money, no question. Benefit design can save employers money. Whether it reduces total health costs is another question. What we will see is people trading down more often than they trade up, and it will be a world of opportunity and risk for the private sector.

Scenario 2: Bigger Government

There could be a major reaction to this cost-shifting. Most of the strategic thinkers for health plans say they've got five good years of cost-shifting and then they don't have another good idea, because it becomes unaffordable. You can't have people spend \$20,000 per year on premiums and co-payments. It doesn't compute. And it's quite conceivable that someone will run in the 2008 presidential election on the vulnerability of retirees. We're moving demographically from a "soccer mom" agenda to a vulnerable retiree agenda, which is basically "protect the baby boomer generation at all costs." If this scenario plays out, we'll live with the consequences of bigger government, which is politicization of health care spending, rationing and restriction, lower innovation, lower profits, maybe less micro-efficiency, and certainly higher taxes.

Scenario 3: Market Nirvana

There is another caricature, which is the market caricature. In other words, we want to break the culture of entitlement and we want to force consumers to discriminate on the basis of cost and value. This will force consumers to buy health care, not cars, as we are currently doing. We want to put incentives for both health and personal responsibility. We want to provide catastrophic coverage, and then after that it's retail medicine for all. What you'd see then is utilization based more on ability to pay. You'd probably see the rise of "cheapo" plans and delivery systems.

Scenario 4: National, Rational Health Care

What I'd like to suggest is a scenario that would get us to what I call national, rational health care. I'm not suggesting everyone in this room would endorse the national part of this, but probably the rational part of this. And that is that we have to deal with the problem of universality and delivery

system re-design. There should be a basic floor for all Americans and then you can trade up with your own money. There should be incentives, such as pay for performance, and rewards for re-design. There should be universal coverage one way or another. There should be expanded access and rational design tied to one another. And all of this needs to be innovative and based on contemporary, cutting-edge IT and biotechnology.

Looking ahead

The conclusions I would draw are that, whatever happens, we're going to need better value measures and to move to transparency of measures. Dr. Ken Kizer and the National Quality Forum have done an enormous amount to try and raise the level of debate on this. We have more to do.

I think you will see value-based purchasing become more prevalent, and it will have a powerful influence on providers and vendors. We're certainly seeing the early signs of that in California. We are going to have to engage consumers, one way or another. I don't believe we can rely on them absolutely, but they're certainly a very important agent in these value discussions. And we're going to have to improve the sub-systems of health care, no matter which scenario we pick.

Our goal for this meeting is about the need for leadership in all of this. It's not going to happen spontaneously. We're not going to get better value unless we figure out ways to deliver, and we've got to do that in a hurry.

The intention of this meeting is to have a broad base of dialogue among a very interesting mix of leaders from the health care and broader communities. Our goal is not just to replicate the

important work that the Institute of Medicine and National Institutes of Health have done. This is a conversation for action.

We want to drive towards a common understanding of what we are going to do. There is too much finger-pointing in American health care and not enough responsibility. So this meeting is about constructive engagement about value improvement in health care. It's about re-designing the systems and sub-systems of health care to be optimal. Hopefully, we'll generate enthusiasm and cultivate a broad dialogue about what can be done. And hopefully, we'll be able to identify quick victories.

“Medical Technology & Pharmaceutical R&D: Cost or Investment?”

Presentation by Kevin Murphy, PhD, University of Chicago

In research I've done with Robert Topel, my colleague at the University of Chicago, we've measured the economic value of medical research based on gains in longevity, as well as the economic value of improvements in health and longevity. We measure value by what people are willing to pay, because that's the bottom line. To determine what people are willing to pay, we look at the choices they make, in the context of appropriate costs and benefits.

There are a lot of things you can look at for sources on how people value health and longevity. You can look at how people respond to health information, like information about how cigarettes are harmful to their health. You can look at their choices of safety equipment, such as how much they're willing to pay for a safer car. You can also look at their occupational choices. In other words, how much more do you have to pay people for them to take added risk in their job? And finally, you can look at what they order for lunch at a restaurant. What people order for lunch tells us that health is generally not an overriding concern that can't be traded off for something else. But it also tells us that health is something people are willing to think about.

If we look at occupational choice, the evidence suggests that people are willing to pay about \$500 to reduce their annual probability of death by 1 in 10,000. That's a measure of how much extra you have to pay people to take a riskier job over a safer one. So it's a market-determined value that people would place on their longevity. This translates into a value of about \$166,000 per life year in the prime age of life.

What we do not do when we measure value is measure the contributions of medical research to GDP, such as jobs. These are costs, not benefits. Also, we do not measure the increased productivity from longer lives. People like to tell employers that if you treat your employees' health better, they'll be more productive. But we care about much more than productivity. If you take that viewpoint, then the optimal life span is to live until the day you retire and then die. Few of us would think that's the optimal lifespan, so you have to think beyond productivity.

We try to measure health and longevity contributing to individual well-being. That's what matters. Casual evidence suggests that health and longevity are important, which indicates that improvements in health are not something we should ignore as a national policy question.

The value of health and longevity

Our basic results are that historical improvements in life expectancy have been very significant. Improvements in longevity from 1970-1998 had a total value of about \$73 trillion (or about \$2.6 trillion per year, on average, over that period of time). That's an enormous number – about seven times the annual GDP.

What that tells us is that improvements in longevity are really important. They're basically as important as improvements in all other forms of material well-being. Between 1970 and 2000, improvements in wealth and improvements in health contributed roughly equally to gains in well-being during that period. That's also true if we look back over a longer time horizon, like back

to the beginning of the century.

Potential future gains are also very large. Eliminating cancer has a price tag of about \$44 trillion in terms of what people are willing to pay. Eliminating cardiovascular disease is worth somewhat more – about \$51 trillion. Even modest progress has great value. A 10% reduction in cancer deaths would be worth about \$4 trillion. The historical reduction in heart disease from 1970 to 1998 was worth about \$32 trillion.

A 10% reduction in all causes of mortality would be worth about \$17 trillion. A 1% reduction in cardiovascular disease would be worth about \$5 trillion. Recent improvements are actually reflective of long-term gains in longevity. You don't want to fall into the trap of saying all these gains are the result of health care. A lot are from other sources.

If we compare the gains we got in terms of longevity, the growth in expenditures were somewhat smaller but on the same order of magnitude. This is on an aggregate analysis. What that tells us is that there have got to be areas in which we do too much, and areas where we do too little. Of course, there are a lot of caveats to this analysis. Health costs include a lot of costs other than those directed at longevity. But it does tell us that these two things are racing against each other.

Implications and looking ahead

Some implications of the analysis we did are that the economic value of disease reduction is growing over time and the value of disease reduction is rising along with the level of wealth. As you get wealthier, people are willing to pay more. Appropriate efforts to control health care costs will increase the value of research. That is,

they go hand in hand. The value of research can be enormous.

A key question in discussing the value of health care is whether we can do medical research on interventions that cost less to implement than the value they create. That depends on what the treatment costs. The real question is: can we discover treatments that cost less to implement than they create in value? Because third-party payers create distortions in the health care market, we tend to spend more money on things than we get in terms of benefits.

In thinking about investments in medical technology, there is growth in the market for health care. Growth favors fixed-cost technology, like drugs and other things that involve big expenditures on research and lower cost per capita on implementation. If the market doubles, the cost advantage of a fixed-cost technology relative to a pure variable cost technology, like treatment that is one person at a time, is going to double.

If you think about a world 50 years from now – when the Asian countries are much bigger and richer than they are today and the Western world is much older – that market is huge relative to the market today. That creates a huge advantage for fixed cost technologies. Such technologies may be a key way to control the long-term growth in costs of health care. The growth in the size of the market can actually be a benefit on a per capita basis.

The bottom line on health care is that past improvements have led to enormous value. Potential gains from future reductions are also extremely large. So we should revise upwards our estimates of the value of research. Absent cost of treatment, very modest potential reductions in disease would justify the cost of research. The cost

of treatment is the key issue, and rationalizing the treatment delivery is the key to getting the most out of research.

Panel Discussion

Molly J. Coye, MD MPH, Health Technology Center

In her comments, Dr. Molly Coye suggested that maximizing the value of medical research and technology, including information technology (IT) and IT-enabled devices, will require a restructuring of how and when value is assessed.

The value assessment needs to occur much earlier in the development process than it does currently, she said. “As we struggle to deliver value in health care, I think we will do much better to understand the prospective value that research and development in particular areas may have. When there is promise of delivery of value, we should bring to bear everything we can in terms of not only honing the research, but also our capacity to deliver that to the consumer.”

“There is tremendous value in a lot of IT, which we’re unable to realize currently because of the way the health care market is organized,” Coye continued. “If we took the perspective of looking at the value that various innovations might deliver in health care and assessing what their potential contribution would be, we would come up with a very different list of innovations we want to actively promote, both in continuing assessment of their potential and real contribution.”

Lucinda Long, Wyeth

Lucinda Long noted that the pharmaceutical industry continues to devote more and more

resources to demonstrating value because it is under increasing pressure from payers, providers and consumers to do so.

Traditionally, pharmaceutical companies have focused on demonstrating value to physicians, she said. But more recently the industry has focused more on what payers and consumers think has value. Among the changes that have resulted are that pharmaceutical companies are incorporating studies on value into clinical trials, instead of adding them on at the end of development. The reason is that payers are demanding it in exchange for formulary access.

But there are drawbacks. For one thing, demonstrating value to all of the different stakeholders is very complicated for the industry. “Every payer or buyer wants their own set of data in their own population, so it's much more complicated than it used to be,” she said. “The bar for data on value is getting higher, and the target is getting smaller.” As a result, newer therapies face tougher hurdles than those that went before, making it more difficult to get innovative treatments to patients.

Dhan Shapurji, Anthem

Dhan Shapurji focused his comments on the difficulties payers encounter in trying to measure the value and cost implications of new technologies related to care and clinical diagnoses. “The reality is that when we introduce new technology you see an immediate spike in utilization, which is a major concern to a payer,” he said.

Shapurji noted that it is difficult for payers to analyze the value of each new technology. “Some technology is wasted, but it’s very hard to determine which,” he said. “There doesn’t seem

to be an ability to capture the value and productivity associated with each technology.”

“One thing we find is that it’s almost impossible to find pure substitutes,” he said. “So each new technology ends up adding to cost.” For example, free-standing Magnetic Resonance Imaging (MRI) centers increase utilization and cost, “without the overall impact you might expect in terms of outcome.”

He concluded that “there isn’t really an overall answer, where one can make a blanket statement: this is how to treat technology.” You have to look at technologies related to diagnosis and to care, and consider the impact, he said. “From a policy viewpoint, it’s very difficult to come away with a silver bullet. It’s much easier to...look at discrete technologies and then come up with a statement for [each].”

Clay Ackerly, Centers for Medicare & Medicaid Services

Clay Ackerly said one of the most critical steps in identifying valuable technologies is simply developing the information needed to judge them. But in response to suggestions that the Food & Drug Association (FDA) adopt cost-effectiveness as an additional criterion for market approval, he pointed out several disadvantages.

“Theoretically, this additional hurdle would keep low value technologies off the market and would ease the burden on payers to make decisions based on value,” Ackerly said. “However, this step is risky and undesirable for many reasons. For starters, the information available on cost-effectiveness is poor at the time of market approval. At this point, the experience with the technology has been limited to a few clinical trials, and the benefits the product could provide

in the marketplace have not yet been fully revealed. Furthermore, any cost-effectiveness threshold that the FDA could apply would be entirely arbitrary and could not reflect the varied preferences of all patients. Thus, it would unnecessarily prevent those patients who might be willing to pay more than the threshold from receiving an otherwise safe and efficacious treatment.” Ackerly said it is either the payer or the patient-doctor locus that should be making decisions based upon cost and value.

“At the same time, the FDA should take and has taken an active role in helping to create the information that informs decisions on value,” said Ackerly. “One challenge in the current environment is how to prevent the information gathering process from stalling once the new technology gets approved and marketing begins. Thus, it is important to focus on the post-marketing environment, and the FDA has been working to ensure that as the healthcare system moves to adopt electronic medical records, it will be able to take advantage of this opportunity to gain more information about how the products it regulates function in the real world.”

Ackerly pointed out that the Centers for Medicare & Medicaid Services (CMS) is also acting to help gather and distribute information on treatments. “For example, we’re looking at ways to link up with the FDA and the National Cancer Institute to inform our coverage decisions. We’ve also been making coverage decisions that are conditional on the provision of additional information from follow-on studies. Furthermore, CMS engages in many activities to make information on treatments available to patients and providers, the most recent example of which is the Medicare Drug Discount Card web-site.”

In conclusion, Ackerly noted that “when it comes

to promoting value, the government's primary responsibility should be to support the generation of large amounts of reliable information. Once the information is gathered and made available in a user-friendly way, it should really be up to others, namely patients, providers and payers, to use that information to help inform value-based purchasing."

Panel Q and A

A better structure for determining value

Asked to describe the kind of structure that would be useful for judging the value of new technologies, Dr. Coye pointed to the National Institute for Clinical Effectiveness (NICE) in the United Kingdom and the former Office of Technology Assessment in the U.S. as potential models. "What we're facing is that this isn't being adequately handled by the private payer side," she said. "Right now, most of us are flying blind. Plans can't even collect the information to figure this out."

It takes an average of 17 years for technologies that provide value to get into commonly accepted practice, Dr. Coye said. To speed that, we could do comparative effectiveness analysis as part of the initial approval process. "That framework, whether we call it NICE or something else, has to be built over the next couple of years."

Dr. Jack Wennberg followed up by noting that "if we don't address the structural concerns of who is responsible for doing the scientific work, we're not going to get anywhere. So many conversations about the value of technology are so non-specific in terms of the technology being

discussed that it really loses meaning. We need to understand the complexity of this process, and I don't think we've touched on it yet at a depth such that we can go out and design a response. We learned that you have to have a very strong political base for this."

"The problem is that the universities don't have a constituency for the topic of evaluative sciences. So we don't have a peer review system or a lobby system in place," said Dr. Wennberg. "As a result, an awful lot of medical practice goes unevaluated. So a next step is looking at how we get a correction of the imbalance between basic science and the people who are supposed to be using the results. Academic medical centers should have a responsibility for that. But they're becoming advocates for specific technologies, without any evaluation going on. If you want action, connect the dots so that it will get the federal government interested."

Another audience member said that "as a purchaser, I think the expectation from the FDA is not so much a cost effectiveness judgment – that is to be determined in the marketplace. But the FDA could bring some credibility in judging the relative effectiveness of new technologies versus existing ones."

Ackerly responded that he understands the desire to include comparative effectiveness, although not necessarily cost-effectiveness, as a criterion for FDA approval. "Comparative effectiveness information is extremely valuable in the marketplace," he acknowledged. "At the same time, I do not believe that comparative effectiveness is something that we want to have as a barrier to market entry. Determining relative effectiveness among similar drugs is an extremely expensive and lengthy process to undertake, and

using this as a barrier to market entry would likely have negative public health consequences. That said, there is clearly a dearth of information on comparative effectiveness, which can hamper value-based purchasing among therapeutic alternatives.”

Ackerly also noted that within the Medicare Modernization Action of 2003, section 1013 gives the Agency for Healthcare Research and Quality (AHRQ) \$50 million to fund studies in this area. “But in addition to the government, it is important that payers and purchasers, who stand to gain the most from this information, also do their part to help fund comparative effectiveness studies.”

Another participant said that employers are increasingly moving toward providing consumers with quality data in addition to cost incentives. A group of about 90 companies and purchasing groups and consumer organizations have come together to ask the National Quality Forum to establish nationwide, universal measurements as quickly as possible and get those measurements out in the field so they can be implemented.

“We want to provide a more solid foundation of quality improvement, transparency and disclosure,” he said. “We’re also putting together a pharmacy coalition. We need to take rebates out of the system and get more transparency.”

“Investing in Prevention – Primary through Tertiary” ***Presentation by John Seffrin, PhD, American Cancer Society***

We at the American Cancer Society (ACS) believe that far too little attention and too few resources are given to chronic disease prevention in general and to cancer in particular. Currently, 125 million Americans live with chronic diseases and 8.5 million are long-term cancer survivors. Chronic diseases, including cancer, are now responsible for over 75% of all U.S. health expenditures. By 2020, it is estimated that chronic disease expenditures will reach \$1 trillion, which will be 80% of all expenditures.

However, our nation invests only about \$1.25 per person per year on prevention for chronic diseases that are the top killers, meaning cancer, diabetes, heart disease. Our health care system is not only oriented around the treatment focus, but is also often biased toward the late-stage treatment focus. It is only beginning to embrace prevention and early detection. A lot more needs to be done.

We believe the public sector and the private sector – including both the for-profit and not-for-profit sectors – need to work together to accept this challenge and to focus on prevention and invest in it. Certainly, evidence would suggest that we really have no other choice. Of the 2 million people who died last year, 90% of them died from 10 causes, and 90% of those ten were chronic diseases. Of those chronic diseases, 90% were heart disease, cancer and diabetes.

If you look at those disease problems, it's clear we know much more today about how to prevent them than how to cure them. So while we're making advances on cancer cures, the greatest opportunities would seem to come from opportunities at prevention. Cancer is a leading cause of death, but it needn't be for long in

this new century if we do the right things. If opportunities to prevent and control cancer were fully seized and realized, millions of lives could be saved – and cancer, the disease Americans most care about, could be eliminated over time as a major public health problem.

Taking action on prevention

The Institute of Medicine released a report in October 2003 titled *Fulfilling the Potential of Cancer Prevention and Early Detection*, which provides 12 evidence-based recommendations regarding clear opportunities to dramatically reduce our nation's cancer burden. The prevention strategies it highlights would also significantly reduce the risk of dying from other diseases like heart disease and Chronic Obstructive Pulmonary Disease (COPD).

Cancer is both a disease and a societal problem. People's cancer risk is related as much to their lifestyle and socioeconomic background, sometimes even where they live, as it is to their biology. But we mustn't forget that social aspect. There is a lot that we, as a society, can do to fight cancer that is not now being done.

ACS is committed to prevention and we are working collaboratively at the national level and with communities to improve our ability to prevent cancer and other diseases.

Our media launch this week of the “Preventive Health Partnership Initiative” is the first-ever collaborative effort of this scale between and among the American Cancer Society, the American Diabetes Association and the American Heart Association. Our goal is to improve

prevention and early detection through collaboration by key organizations, heightened public awareness and legislative action that will result in more funding for prevention programs, and to promote regular medical check-ups to be an effective platform for prevention, early detection and treatment when necessary.

To support this goal, we have chosen “Everyday Choices for a Healthier Life” as our overall theme for our campaign aimed at educating Americans about lifestyle choices that can greatly reduce risk of cancer, diabetes, heart disease and stroke. It will encourage people to work on key health behaviors, with messages such as eat right, don’t smoke, get active, and see your doctor. There’s more to it than that, but we think it’s a step in the right direction. We have a web site and are partnered with an advertising agency. We’re targeting women between ages 30 and 50.

We are not getting the results in cancer control that we ought to. This nation has not been stingy in its investment in the cancer problem, and we’ve made progress since the original National Cancer Act, but there are gaps. So we, along with others, worked to form what was originally called the “National Dialogue on Cancer”. The idea was to bring top people from every sector together on a regular basis to talk about the cancer problem and what needs to be done. Now known as “C-Change,” it’s chaired by former President Bush, Barbara Bush and Sen. Dianne Feinstein. Its focus is on what we can do systemically to address the cancer problem.

In the survey we released at the March 3 launch of “C-Change,” 91% of those surveyed believed lifestyle choices can affect their risk of developing cancer, and that’s some progress. But only 61% have actually taken any action to reduce that risk. In another example, when you look at the

awareness/action gap with regard to participation in clinical trials, 87% of those surveyed indicated that if they had cancer they’d want to participate. But in reality, only 3% of adults get into a clinical trial if they get cancer.

Progress so far

I can point with pride to some accomplishments. About 50 organizations belong to “One Voice Against Cancer” – OVAC – which is dedicated to providing a unified advocacy message on cancer. OVAC’s work has resulted in a doubling of the National Institutes of Health budget over 5 years. We’re working to secure funding for vital public health programs that improve prevention for chronic diseases, including cancer. We’re working to promote better primary care services through the Health Resources and Services Administration (HRSA). We also worked to change the Medicare law by establishing “Welcome to Medicare” physical exams for new beneficiaries to make sure they get on a wellness regimen. This new provision will take effect January 1, 2005.

We are also advocating promoting and expanding the idea of patient navigation. Our effort is a community-based system where we try to reach out to underserved people and communities and help them traverse the health care system, hopefully for screening and all the way through treatment. We are working to change state laws to cover colorectal screenings, since early detection of polyps can lead to prevention of colon cancer. We are also working on tobacco control efforts. It’s still public health enemy number one. Tobacco use accounts for about 1 in 5 deaths in America today.

To sum up, I’m proud that the American Cancer Society set measurable goals and that we report our progress. We’ve had a decade of consistent

1.1% drops in cancer mortality. Before, it went up every year. But now it's going down. Globally, cancer mortality went up 19%. As you think about your work, keep in mind that as you begin to find answers, the application of that on a global scale will be terribly important. The chronic disease burden of the future will be in every country.

I would suggest to you that the problem we face is one of accessibility application. Our "know-how" has outstripped our ability to close that gap. Much of our job is to understand how important it is to find better ways. Prevention is the cure.

Panel Discussion

Harold Timboe, MD MPH, University of Texas Health Sciences Center at San Antonio

In his comments, Dr. Harold Timboe, former Commander of the Walter Reed Army Medical Center, pointed out that the military health system has been effective in its efforts at prevention and health promotion because it recognizes it has a vested, long-term interest in the health of its members. As an employer, the military needs a healthy, fit, ready workforce. The military also recognizes it is responsible for the health care costs of many of its retirees and their spouses for the rest of their lives, so it takes a long-term view. And finally, the military is not only the payer, but also the provider of health care.

This vested interest in its members' health gives the military health system a clear incentive to invest resources and priorities in health promotion and prevention. "It also has the authority to make

various preventive health policies part of military regulations," said Dr. Timboe. "In this manner, accountability aligns with financial incentives as well as how to deliver preventive care."

Some of what the military has accomplished can be instructive for the larger society, said Dr. Timboe. "A key enabler has been the development and implementation of an electronic health record across the world-wide military health system so that the patient has one longitudinal health record with information readily available to all who need to know," he said. "There is real value in knowing the status of various health problems, as well as preventive services, thus allowing the system to intervene at many points when the patient interfaces with the health system."

"The alignment of accountabilities has also allowed the military to integrate in its delivery system all aspects of health – public health, mental health, acute care, in-patient, outpatient, rehabilitation – under one authority that is also accountable for financial performance, customer satisfaction, and quality care. This enables the system to make investments in the most effective manner, achieving efficiency, effectiveness and outcomes that result in healthier individuals and communities."

Ed Martinez, MPH, San Ysidro Health Center

Ed Martinez drew on his experience as CEO of a community health center in southern California to point out the various factors in health care that are essential to effective prevention and health promotion, particularly among underserved populations. "We all know that the determinants of health outcomes are not just physical in nature, but also behavioral, cultural and spiritual," he

said. “Our traditional biomedical model of care really doesn’t address these non-physical dimensions.”

Martinez emphasized that patients’ ability to trust their providers is the key issue in trying to increase participation in preventive services. “At our community health center – where there are more than 40,000 registered patients and 95% are Latino – patients have certain expectations,” he said. “They want to be able to trust and have confidence in their provider, and they want providers who have enough time to listen to their story.”

Martinez said that increasing access to care requires a community-based, community-oriented system of primary care. “We have a family medicine residency program that provides the first point of entry into our health center,” he said. “Providers emphasize health promotion, prevention and healthy lifestyles, and they serve as the coordinator of care. Culturally competent providers are also very important.”

The key operational question is how services are implemented once a need for a clinical intervention is identified. “The intervention is only as good as the follow-through,” he said. “Many of our patients have little experience with preventive services. Their lack of knowledge or information is significant. They deal with poverty every day. Given the multiple stressors that characterize their day-to-day activities, participating in preventive programs is not a high priority.” Getting the message across to these patients about the importance of prevention requires targeted communication, he said. “You have to utilize a social marketing style of communication that gets the appropriate message (healthy lifestyles) across socio-cultural barriers. And for every community it’s different.”

Richard J. Bringewatt, National Health Policy Group

Richard Bringewatt said it is vitally important that we extend the concept of prevention beyond simply primary prevention. “In many circles, ‘prevention’ means ‘primary prevention’ – but to achieve true health value for our dollar, we need to look at secondary and tertiary prevention interventions as well.”

An expanded view of prevention is particularly important when one considers that patients with multiple chronic conditions account for most of the health care costs in this country. “One can prevent, delay, or minimize the progression of chronic disease and disability at any stage of a condition’s progression, even among the very frail and disabled. The concept of prevention needs to be pervasive throughout all of health care.”

For patients with multiple chronic conditions, “the interdependence between disease and disability states requires a different approach to care,” said Bringewatt. “It requires us to think more about the nature of relationships than perfecting the isolated functioning of component parts.” We need to look at re-engineering the health infrastructure for how we manage care.

“In most cases, we tend to manage care one disease at a time,” he said. “We organize our management of care around specific events, places and professional protocols.” But this tendency to view each condition in isolation is not working, which requires us to try something different. “Since all of these variables are interdependent in chronic illness care, we need new incentives for pulling these related pieces together for ‘total quality improvement.’ That simply doesn’t exist right now. Millions of people experience medical complications, with increased

costs, that are caused by ‘system failure’ – an inability to connect the dots of total care.”

Bringewatt said we also need to change how we pay for and monitor care. “Providers have virtually no incentive to follow prevention protocols or to collaborate with others, even when they are serving the same patient, at the same time, for a related condition. Right now, health care purchasers experience the worst return on their investment in care of patients with multiple chronic conditions, particularly those who are frail and with multiple, complex care needs. We have to change that. We have to create new quality measures and financial incentives for prevention, for collaboration, and for total health improvement.”

James T. Howell, MD MPH, Nova Southeastern College of Osteopathic Medicine

Dr. James Howell said that in looking at chronic disease, we have to recognize that the patient is the driving force in terms of self-management. For example, taking insulin or doing weight reduction is a choice that patients themselves have to make. “So we have to customize that,” said Dr. Howell. “We’ve made tremendous progress in treatments. But we have a tremendous challenge in lifestyle.”

He noted that coalitions have been very effective in promoting tobacco reduction. “We need to keep the message simple, especially on weight control,” he added. “We have to work as a team and create an environment that is not vindictive. Also, we really have to be aware of cultures. We need to make the patient feel at home and comfortable.”

Panel Q and A

Aligning incentives to support prevention

A participant noted that behavioral and psychological interventions are very effective in helping patients deal with chronic conditions, but the financial system often works against delivering behavioral health services to chronically ill patients. Medicare now has CPT codes that allow for reimbursement of these behavioral health services, he said. But how do you get carriers in the private sector to see that using these new health and behavior codes actually will benefit the patient’s care, improve the financing, and save money overall?

Bringewatt responded that it is important for the public sector to provide leadership in establishing new financial incentives, particularly under Medicare and Medicaid programs, which are the principal payers of chronic illness care. “We’re not going to achieve the results we’re looking for until we reimburse on performance,” he said. “Currently, we pay for pieces and procedures and with little sense of their cumulative effects. We have to open up the structures. We have to change the rules of the game.”

Another audience member pointed out that actually the private sector often pays for things before Medicare does. “You need to show the value of paying for the extra service,” she said.

Another participant noted that it is important to include oral health within an integrated health care system. Physicians – whether they’re cardiovascular surgeons or OB-Gyns – should want to know the oral health status of their patient, he said. “I think what we really need at

the national level is a definition of an essential set of services that the entire population is entitled to. That can be the starting point, and then add the technology piece, if we're talking about an electronic medical record. I would think everything could flow from that."

Ian Morrison responded by noting that one of the themes emerging in the discussion is aligning incentives. "We really need to have 'son of capitation' or 'daughter of capitation' – because a lot of us are really excited about having more innovative models of capitation as instruments for design or delivery."

Morrison acknowledged that capitation has been demonized by the press as bribing doctors to under-serve patients. "But the thing that was very powerful in the exciting days of the early 1990s is that a number of behaviors in the large medical groups really changed. There was a lot of preventive activity and understanding that mental health was a critical part of patient needs; there was a more holistic view of health; and most hospitals that embraced it did a lot more community outreach because they all thought they were going to be on the hook. Once you kill capitation, you're back to siloed budgets."

Morrison then asked the panelists their views on designing incentive structures.

Martinez responded that hospitals in San Diego are experiencing major problems in their emergency rooms because of inappropriate utilization, so hospitals have clear incentives to support educating the community about the rational use of ER services. "Hospitals are very supportive of a collaborative community education effort," he said.

Dr. Howell noted that the idea of a basic package

of care for every American quickly becomes a political issue. "But it's an issue that our country really has to face, especially with 44 million uninsured," he said. "These are some really big issues, and we're not looking at the big picture right now."

Bringewatt then offered his thoughts on a new managed care concept. "It's a critical re-engineering process that we have to go through if we are going to achieve real long-term quality and cost benefits from managed care interventions," he said. "Operationally speaking, 'managed care' means different things to different people. To providers, managed care frequently means 'I get to do the same thing I did last year with decreased funding and increased accountability.' Most managed care companies simply ratchet down costs within existing provider structures rather than use their flexibility to achieve real health value across settings and over time."

But in some cases, managed care means integrated health systems, Bringewatt said. "During the early to mid-90s, many of the nation's leading health system executives used managed care financing structures to begin the process of health system transformation. They used global budgets, integrated care methods, and a variety of community health initiatives to develop continuums of care that emphasized using whatever combination of care was seen as most cost-effective – a core managed care principle."

"Unfortunately, the Balanced Budget Act of 1997 (BBA) forced many of these executives to abandon their efforts. It drove them back to fee-for-service strategies that further perpetuated a fragmented, crisis-oriented, institutionally-based approach to care. They abandoned a movement

toward establishing a more person-centered, system-oriented approach to care. There were a number of large health systems that were doing some very creative things by taking revenue earned on the acute care side to set up other kinds of care alternatives. But the BBA drove down hospital margins to the point they could no longer invest in innovation and reform.”

“As we move ahead, we have to be careful in dealing with the technicalities of how various policies affect care delivery on the front line. We have to look at new ways to restore some of the benefits found in core managed care concepts. We need to find new language, using somewhat of an incremental strategy, to re-invigorate the industry for creating a preferred model of care. One option may be to look more closely at ‘managed fee-for-service strategies’ as a next stage effort to reinvigorate health care to re-invent itself.”

Prevention and public policy

An audience member expressed doubt that policymakers in Washington are even interested in doing more to support prevention and health promotion. But two panelists – Martinez and Seffrin – noted that there have been some very successful recent efforts to change public policy in support of prevention.

“I think it’s worth noting that two years ago the Bush Administration approved doubling the number of federally-financed community health centers,” said Martinez. “That’s \$500 million over five years, which is a major movement forward into a community-based health care system. It’s a major accomplishment.”

At local and state levels, “tobacco control is a great example of success in government

intervention,” Seffrin said. The first year after a smoking ban went into effect in New York City there was an 11% reduction in smoking. But he noted that the federal excise tax is only 37 cents a pack. “It ought to be 2 dollars.”

In response to a question regarding the research dollars spent on early detection of cancer, Dr. Seffrin responded: “I don’t think there’s any question that we’re not spending enough there. Things have improved, but the truth is that the gap is bigger than it’s ever been in terms of what it is and what it could be with respect to these diseases. We’ve had a lot of discoveries and a lot of insights, but patients are not getting the full value. The ACS is raising money to create a 501c4 organization and get some answers.”

Dr. Ed Hill offered what he called “a challenge” to the rest of the participants. First, he noted that the U.S. “spends \$824 billion a year on the medical care of seven or eight different behaviors, all of which are preventable. Five are directly related to heart disease, cancer and stroke. And we don’t have any comprehensive, definitive strategy throughout the country for addressing those behaviors.”

“Suppose we had a way of funding, without new money, comprehensive health education, pre-K to 12th grade, in every school in the country,” he said. “And suppose if we did that, we cut those behaviors by 10 percent. We’d save \$80 billion. Every politician’s health plan out there says we need another \$50 billion to \$80 billion to cover the uninsured.”

“We have the best highway system in the world because we have a federal framework for highways,” said Dr. Hill. “If states meet the federal framework, they get the money. Why don’t we do the same thing with comprehensive school health in America? There are five federal agencies with

health education budgets. If you look at what they spend their health education money on, you and I probably wouldn't recognize it as being health education. Why don't we take the money from these agencies, put it in a bucket and dispense it just like we do highway funds?"

"We could have a comprehensive curriculum for school health pre-K through 12. Each school district should determine its own curriculum. Let's talk about real primary prevention, which will address more than we ever could with chronic disease programs. It's going to take a movement of every segment of this society to demand that Congress do something about it. That's a challenge I think we ought to present."

Bringewatt responded: "If I can pick up on your idea of making prevention a national goal, it is important for us to recognize that we don't have 'health policy' in this country; we have 'budget policy.' We make budget decisions around discrete provider segments and specific disease interventions. These budget policies reinforce fragmentation and the sub-optimization of cost and quality without regard to their adverse cumulative effects. Budget policy makes health practice all about increasing or decreasing the cost structure of each industry segment, without regard for their interdependence in achieving overall health value."

"To create real change, we have to put financial incentives behind a new vision of care," he said. Providers would behave very differently "if we could establish targets for reducing incidence rates and prevalence rates for specific chronic illnesses and related disabilities, if Congress would establish national goals for reducing the trajectory of disease and disability and use this as a foundation for making budget decisions, and if all of health care was accountable for reducing the

incidence and prevalence of chronic disease and disability rather than simply reducing the cost of their specific segment of operation. We have to set some new policy targets that drive people to function differently. We need to pull the whole health care community into a new way of thinking."

In response, a hospital executive said: "Somewhere I remember we tried to do that and all the doctors decided to become primary care physicians. Now we don't have enough neurosurgeons. If we did primary prevention and set an established level of services, obviously those things work very well at the macro level. But price-wise, providing all that primary care and preventive services ends up meaning you don't have enough money left for the medical care for some of the sick people and the cancer treatment, etc. So how do you deal with those issues, and with the competition?"

Dr. Seffrin: "I would say there is enough money in our system. If we had a more rational system and could make tough decisions, you could have it both ways. We're spending roughly double the next highest country for health care and getting lousy results. That tells me that redistribution of how that money is spent could have great benefit to the population."

An audience member suggested that a starting point for redistributing funds could be looking at how much it will cost the country to pay for overall medical costs under the current system, versus how much less it would cost if we fully implement prevention.

Prevention and the role of employers

A business executive observed that companies can play a very important role in prevention. "But

from a pure business standpoint right now, there are not a lot of strong, positive incentives for them to take on prevention issues that occur predominantly later in life, once most people retire. To the extent that employers can play a significant role in health education for their employees, what other incentives can be given to businesses to encourage them to do much more in this area of preventive medicine?"

Dr. Seffrin responded that C-Change has developed something called The Gold Standard. "With the help of Milliman, we showed that you could do primary prevention all the way to clinical trials for cancer treatment, and if you have an older, stable workforce, it virtually pays for itself." The cost is \$1.50 per member per month, he said. "CEOs have looked at the data and now they're planning to have 26 million employees covered by the end of 2004, with that amount put in by the employer. I think those kinds of things can be done. It's a matter of capturing them and selling employers on it."

Another business leader noted that his company does provide preventive care and incentives for it. "We incentivize annual screenings, and the level of contribution people pay to premiums is determined by whether or not they do the screenings," he said. "We also provide stigma-free mental health care. And what does the data show? We think that within [our company] we have lower inpatient costs because of better outpatient mental health care. We need to have some studies and data on both mental health care and preventive care."

“Achieving Value in Health Care – Some Experiential-Based Observations”

Presentation by Kenneth Kizer, MD MPH, National Quality Forum

During my time at the Department of Veterans Affairs (VA), we achieved a transformation of the VA health system that was fundamentally premised on achieving better value.

First, some background. The Department of Veterans Affairs, which runs the VA health system, is the second largest agency in the federal government. It is structured like the Department of Health and Human Services and the health care system is run by the Veterans Health Administration. The largest health system in the country, it currently has a budget of \$26 billion. The VA has fewer beds than Hospital Corporation of America Inc. (HCA), but about the same number of hospitals.

The VA health system has a number of statutory missions, some of which conflict with each other. First and foremost, it is charged with providing medical care to eligible veterans. This is an exceedingly difficult population with which to work. Many patients have multiple co-morbidities, psychiatric problems and other issues. The VA is also a large provider of health professional training and a large research organization. Until recently, it's been the federal government's primary agency for emergency management. It's also a major provider of services to homeless individuals and the largest provider of mental health services in the country.

Starting with a vision

The re-engineering of the VA health system was fundamentally premised on the idea that if the VA couldn't demonstrate that it could provide equal or better value than the private sector, then it

shouldn't exist. I thought the VA probably could demonstrate good value, so I thought it was a safe premise.

The way value was defined was simply what came to be known as the value equation, where value was a function of quality and access, functional status and service satisfaction, divided by cost or price. Subsequently, another element was added to the numerator on community benefit or public health benefit. Within each of those domains there was a menu of metrics. To the extent that those metrics could be made the same as the private sector, we were able to make apples to apples comparisons on measurements.

The vision for the change was really pretty straightforward: provide a seamless continuum of care. We had the assets to do this – hospitals, acute care clinics and nursing homes. Provide consistent and predictable, high-quality care. Provide a superior value. It was a vision that was quite easy for everyone to understand.

On restructuring, there were multiple things being done at the same time, which has made it confusing for many of those who tried to study this.

One of the first things we did was create a new organizational structure premised on the integrated service network (ISN) concept. While ISNs have fallen out of vogue in health care today, they never really were practiced. Most people thought if you were a hospital and bought a few nursing homes, and you were failing at both practices, you had an ISN. That didn't work. I think ISNs, or organized health care systems, or

whatever you want to call them, will come back in vogue because they are something that actually works. This is all predicated on working with academic medical centers on behavioral health or acute care services. It created all kinds of dynamics with our academic partners.

We created a new operational model of universal primary care. When I went there, about 10% of patients were enrolled in primary care. The family practice model doesn't work very well in a patient population like the VA's, so we used the British model of general internists.

With regards to care management, our patients had a number of chronic illnesses plus sometime drug use. It's often difficult to decide which module to use with these patients so we had to focus on total care. We did things like standardize benefits and go to a national formulary. It's interesting the number of calls I've gotten from the pharmaceutical industry since the Medicare Modernization Act went into effect who want to understand the VA formulary now, after years of opposing it.

There is a big emphasis on ambulatory care and taking care of patients in the right place, whether a hospital or the home. We had to do some things to change some of the governing laws that made absolutely no sense in the 1990s. Even members of Congress couldn't believe they put those laws in place. We got some of those changed.

We changed the resource allocation system by putting in a capitation-based model. It had been absolutely impossible to figure out how dollars flowed in the VA, other than to know that in New York City it cost twice as much to care for a patient as in San Francisco, even though the cost of labor is higher in San Francisco. Our new

system, the Veterans Equal Resource Allocation system – or VERA – became a four-letter word in places like New York City because hundreds of millions of dollars were shifted to the South and Southeast when finances finally started to be linked with patients.

I want to focus on Basic Care, which is by and large comparable to the managed care version of Medicare. The VA's pharmacy system was a bit more robust than what Medicare was offering. It covered most patients and the cost per member per month was \$238 nationally in 1999 – approximately one-fourth to one-half what Medicare was paying for fee for service. Complex Care referred to coverage that really wasn't provided by Medicare. For example, VA is the largest provider of HIV/AIDS care in the world. Most of the advanced HIV care is provided out of Ryan White monies or a number of other things.

We had to modernize the information management. When I went there, the VA actually had a very robust information system. There was nothing available on the market that was nearly as good. Since then the Institute of Medicine and other entities have looked at it and said the VA has one of the best information technology (IT) systems around. We also put in place an accountable performance management system, which was unique in the federal government. We tried to align our vision and mission with quantifiable goals. It seemed pretty straightforward.

The results

As a result of our strategic plan, we did put in place a system of universal primary care. In 1998, 80% plus of VA patients could identify their primary caregiver. We did close 55% of acute care beds over a five-year period, recognizing that only

one other system in the country had over 28,000 beds to begin with. We reduced bed days of care by over two-thirds. The number of admissions per year went down by over 350,000, while the number of ambulatory care visits went from 24 million to 37 million a year. They're now at about 53 million a year.

While we were taking care of substantially more patients, the actual staffing dropped by about 26,000 individuals, and there was a big flux in those who remained. Actually, we laid off some physicians.

We went from over a million hospitalizations each year to about 600,000. The number of ambulatory surgeries went up. Several hundred new community-based clinics were established – with no new money. This was all through redirected funds.

By putting the formulary in place and actually holding people accountable, we were able to demonstrate over \$650 million a year in savings on our purchasing of pharmaceutical products, recognizing that VA already had deeply discounted prices compared to anyone else in the market.

We merged a lot of facilities, got rid of a lot of paper, and put in place a semi-smart card. We were able to document a little over a 5% reduction in per-patient cost in constant dollars. So when we talk about value, there was a substantial decrease there.

On quality of care, an article we published in the *New England Journal of Medicine* looked at VA versus Medicare. You can look at a number of areas where the metrics are the same. VA is essentially tracking everything that Medicare is. The bottom line is that, except for one metric

having to do with annual eye exams, where performance of the VA deteriorated a little for one year, VA outperformed fee-for-service Medicare in all of the indices that were looked at, some by quite a substantial margin.

Finally, on service satisfaction, we looked at another survey using the Customer Service Satisfaction Index. The bottom line was that patients who were being cured actually thought things were working better for them, and VA actually compared quite favorably to private sector hospitals.

Therefore, increased value can be achieved and it can be achieved relatively quickly. One of the things I hear every day at National Quality Forum is “we can't do this unless there's a big infusion of money,” or “we can't do this because it's too complex and it's going to take forever to do.” I don't necessarily agree with that. If we align the incentives and pursue systematic change, we can actually achieve fairly rapid change.

Recommendations

Given the complexity of health care, we need to identify priorities – we simply can't do everything. We need to have a clear and easy-to-understand vision of the desired changes. What is it in fact that we want to do? We have not yet engaged in a systematic way in that dialogue in this country. What is most important? What is it we really want in the end? We need to focus on some critical change levers. And then we need to focus on a coherent plan. But the vision is much more important than the plan.

We spend a lot of time trying to come up with detailed plans, but if we actually focus on the critical change levers and have some sort of plan that makes sense and is adaptable, we're much

more likely to get to where we want to go than if we focus on a detailed plan upfront.

There are five critical change levers I want to highlight. One is performance measurement, along with public reporting. We delude ourselves if we think health care is in the market. If you don't know what you're buying, if you don't have information on the product, how do you have a market? Until we have an array of national performance metrics where we can actually compare the care from Portland, OR, to Portland, ME, then we can't really say we have a market-based approach to care.

In addition, simply monitoring performance and making it available is an incredibly powerful change strategy. I have yet to meet a group of physicians who are satisfied to be in the bottom 10%. We all want to be the best. All you have to do is show a group of doctors the numbers and there's an amazing self-corrective effect.

Another critical change lever is our payment policy. We're getting what we pay for. Fundamentally, we need to reform our payment policy to get what we want, and we need to align it. If we want higher quality and more value, then we have to start paying for those things.

Another is information management. Again, health care is the most information-intensive activity that human beings have ever engaged in. Yet we are decades behind other relatively information-intensive industries like banking. The irony is that if you look within health care, things like CT scans and MRIs are models of electronic sophistication. Yet how we maintain records and pass information along the system of care is the same as it was 100 years ago. It's encouraging to see that there's a lot of activity going on in the federal government and elsewhere, but that's a

major focus of where we try to promote change in the future.

And finally, there is this notion of value-oriented health care. Health care is one of the most paternalistic activities and always has been. People say consumers aren't interested in quality information. Well, they've been told for a long time to keep their mouth shut: the doctor knows it all. We have not engaged in the sort of social marketing campaign in the way we have to get consumers engaged in a meaningful dialogue, and they have to be.

Q and A

Applying the VA experience more broadly

An audience member, noting that the U.S. cost per patient is much higher than in other countries, asked Dr. Kizer what happened to the cost per patient after changes were implemented at the VA.

Dr. Kizer responded that the cost per patient went down 25.1% in constant dollars on a five year basis, which made it roughly equivalent to Canada's spending per patient.

He remarked on the irony that policymakers have been pretty uninterested in looking at what the VA accomplished. "If you can show you provide better quality for half the price, you'd think Washington would show more interest in what you're doing," he said. "Recognizing that government-run healthcare is anathema in this country, there has been surprisingly little interest in why the VA is able to provide higher quality with higher service satisfaction at a substantially reduced cost. That seems like it would be worthy of some investigation."

Another participant, noting that major changes were made at the VA and the results were remarkable, said: “If you think about the client population in the VA, probably the closest population is Medicare/Medicaid. But hospitals, nursing homes, and physicians who provide care under the Medicare/Medicaid system have a very different relationship with CMS than what those providers had with you when you were head of the VA. I see your change levers as clearly important focal points to sort out where to move on these things. But what, tactically, would you see as the most important things to do in order to begin to mobilize, transform the Medicare/Medicaid system?”

Dr. Kizer responded that “the three things that would produce incredible change very quickly are performance measurement and reporting, putting in place the IT system, and changing payment. It’s amazing how money is the universal elixir and can affect behavior. What you pay for is what you get. I think the federal government, despite the constraints it’s had, has been very timid in its approach. The business community, which doesn’t have the constraints that Medicare has, has been exceedingly timid in rationalizing payment policy. There are all kinds of things they could do to change the flow of dollars, and it would change behavior very quickly.”

“The Social Economic Value of Healthcare Information Technology”

Presentation by Bill Dwyer, Cerner

There are a number of critical strategic challenges in the field of health information technology. One is the new competition that’s moved into the health care field and has touched all of the elements – physicians, hospitals and health plans. The pressures from competition are increasing, not decreasing. And industry employers, through the Leapfrog Group and others, are pushing for investment in information technology (IT).

The question of how IT relates to the economic value of health care in society becomes very pertinent because of market externalities. For example, hospitals are financially strapped. According to a recent report by Blue Cross Blue Shield, there are 800 distressed hospitals in the United States. This indicates that in an environment of tight economic opportunity, the question about new capital investment in IT becomes paramount.

In addition, the regulatory burden resulting from the Health Insurance Portability & Accountability Act (HIPAA) is a \$22 million burden. And more of those regulations are likely to come, in addition to the cost of renovations because of bioterrorism or, in California, because of the seismic measures.

Looking ahead: the context for IT investment

In making some projections about health care, I definitely believe our spending will go way beyond the current 15% of Gross Domestic Product (GDP). I believe it will hit 20% of GDP, and that we’re going to be able to absorb that

quite well. I believe that we have to have that level of spending because of the aging demographics in our society.

As I play with the concepts, I come back to the Hill-Burton laws, when the federal government came forward in the area of investing in health care infrastructure. You don’t get money for any kind of capital investment, like investment for a new hospital in a county, without some strings attached. I think new proposals are going to relate to the transparency of reporting, which involves a lot of elements of IT. That will be the trade-off for investment.

In terms of the sustainability of the health enterprise in this country, we’re going to see increasing excitement around this field. There will be higher and higher salaries in the healthcare field, which makes things like automation and moving away from paper records even more compelling.

Another factor is that we are increasingly allowing hospitals to close. In the last 10 years, approximately 500 or 550 unique hospital sites have closed. As performance data becomes more transparent, we will drive by some hospitals to get to hospitals of higher quality.

With this investment, providers are going to create one more clinical gap between what we give to our citizens and what’s available in other parts of the world. So the international aspects of business are likely to expand even more in the coming decade.

I think we are at a tipping point relative to the discussion of the uninsured. Whether 2010 is the right year or not, these next 2 election cycles are going to put incredible pressure on our country to deal with the issue. It's either we deal with it now or we pass it on to our children. This is the leadership that I'd like to see make that happen.

On value analysis, there are a number of things that indicate we are hitting a second curve – a tipping point around health information technology. The White House is an advocate, having appointed Dr. David Brailer to be the first-ever health information technology czar. Some things are going to happen in this decade. President Bush, in his comments at the Department of Veterans' Affairs, said that increasing use of health information technology means that costs will go down and quality will go up. The issue has become a central part of his dialogue in recent weeks.

AHRQ is talking about elements that are impacted by IT, such as effectiveness, safety, timeliness, centeredness, and equity. Jeff Goldsmith, another health care futurist colleague, makes the point that the role IT is taking in transformation means you'll be able to leverage infrastructure investment. As someone said yesterday, think about the U.S. without a highway system. If we look at the vision of Eisenhower and how we got the federal interstate highway system, we can do a lot, as a country, to leverage IT in health care.

Measuring the social economic value of IT

According to the work of Kevin Murphy and Bob Topel at the University of Chicago, the value of a statistical life, per year, is about \$100,000. So a 20-year-old man or woman in the U.S. with about 50 additional years of life is worth about \$5

million. That's the value of life. The Environmental Protection Agency (EPA) uses a very similar number based on its own analysis. Their number is \$4.8 million. Michael J. Moore and W. Kip Viscusi come up with a number around \$6 million. Using that number, you can apply those values against error rates and death rates that come out, for example, in the Institute of Medicine (IoM) report, *To Err is Human*.

According to the IoM report, medication errors kill about 7,000 people a year. Applying that math in the range IoM gave us, that's \$17 billion-\$29 billion a year. If you look at all of the deaths in the IoM report and you pull out a sub-sample that IT may play a role in eliminating through error alerts and other means, you get an economic value of about \$200 billion to \$400 billion a year. If you go to the report by the National Committee on Quality Assurance (NCQA), in which they highlighted the recent research connecting lack of appropriate diagnosis and treatment of chronic disease to morbidity and mortality, the numbers you get amount to many billions of dollars.

The social value of decreasing non-surgical, non-procedural errors is \$77 billion a year, using simple math against the incident rates of these published reports. If a company like Cerner approaches a provider in a clinical or hospital setting, its goal in each of its projects is to provide a Return on Investment (ROI) for them. There is an economic argument that providers can do what they do even better by decreasing length of stay, improving quality or increasing efficiency. Pacificare has published a report stating that there are similar implications for Medicare in terms of chronic care and the leveraging of IT. They believe IT-driven chronic care improvements can reduce hospitalizations by 50%. You get a sense that this transformation is going to bring value to society.

The return on investment in IT

I would propose that in the next fifty years it is the human genome and application of IT that will be major contributors to increased longevity.

In pharmaceutical R&D, the current spend rate for a new drug for cancer or infection is about \$800 million. According to Murphy's work, if we reduce the cancer rate by 1% the total net value across our society is about \$430 billion. To bring a pharmaceutical solution to market typically takes 10 to 15 years. So R&D for a single drug costs \$800 million – or almost \$1 billion – takes 10 to 15 years, and has a value of \$430 billion. The implementation cost is about \$1,000 a year times 4 million people across 10 years. That comes out to \$40 billion. That would be a top-level analysis of what's happening in a pharmaceutical decision if you add economic value.

Looking at the IT side, in the last 6 years Cerner spent \$1 billion on R&D just to build software for this infrastructure. So compare that \$1 billion to the \$800 million cost of developing a single drug. Using Murphy's mathematics, IT's benefits in terms of patient safety, evidence-based knowledge and electronic medical records are generating about \$46 billion a year plus the \$171 billion a year here, which comes to about \$217 billion a year. You can see these are somewhat comparable numbers, except you get this solution in about 2 to 3 years.

So with the projects we work on in R&D at Cerner, in 2 to 3 years you've got them. With drugs, it takes 10 to 15 years. If you play that out across a 10-year implementation, you get a very similar number. The point is that our society is building this infrastructure around IT just as we built an infrastructure around medications that benefited not just the United States but the entire

world. This is something we have to do. As Don Berwick says, it's not good business to deliver defects, and we've got to figure out how to do it better.

To summarize, the social economic returns of IT outweigh the economic costs. Although infrastructure investment in IT is not always easily reduced to a return on investment, it may be the right thing to do. It's clear that IT is tied to reducing adverse or preventable deaths, or improving care for chronic disease, with patient reminders and alerts, and it looks like it brings transformational value for our society.

Q and A

Implications of IT investment

An audience member expressed concern that uneven investment in IT could contribute to the development of a two-tier system of health care, where there are individual systems and communities that have resources to make the investment in IT, but other systems and communities do not. "What do you see as the potential ways to solve that problem?"

Dwyer responded that, in his view, "you shouldn't hold back the 'A' students. If you've got some 'A' students who can move ahead, let them go. And if they do, they can prove the theory correct or not."

Dwyer also drew a parallel between the example of two-tiered IT investment and the pressure that resulted in the Hill-Burton laws. "Counties and communities and urban areas could not come up with the monies to build facilities, hospitals in particular," he said. "And so the government brought some funding forward. I don't think you

can hold back those who are going forward, and it is going to become very apparent to us that a gap has been created, and I believe there will be a role at the federal level to address the gap. What this group might want to figure out is how that funding should occur in a way that is not onerous.”

Difficulties of investing in IT

Another participant said he would subscribe to Dwyer’s vision for IT investment, but he said a number of factors should be considered. “One is the federal deficit. With increasing federal deficits, the ability of the federal government to be the bankroll for this kind of transformation becomes increasingly suspect. Without a fundamental change in our financing structure at the federal level, the availability of funding for an IT transformation becomes increasingly dim.”

The second factor to be considered has to do with the issue of Return on Investment (ROI). Recent research on cost savings that can be achieved through information technology shows “a disconnect between who gets the R and who does the I. So that creates a disconnect in incentives that we have to address if we’re going to move the agenda forward.”

Third, most physicians still work in small physician’s offices. So despite the fact that most hospitals probably have the capital to invest in IT, “there isn’t capital room in many clinicians’ offices. So the model of a capital purchase of an IT system just doesn’t seem to fit.” Some new business lines are looking at a cost per transaction model for information technology in smaller offices, “and I think that may raise acceptance in those areas that are much more difficult to reach out to.”

Dwyer responded by pointing out that the United Kingdom – which does not have any rosier economic picture than the U.S. – has made a substantial investment in IT. “There are some complications relative to their roll-out that you may or may not be aware of. But the point is that nation-states are making decisions relative to IT in health care in spite of the complexities you’ve highlighted. England won’t be the last. European countries are looking at this, as are others.” He also noted: “If the ‘A’ students do this and they reap the value, the cry for leveling that opportunity for all Americans will create some energy that may force the investment going forward.”

Another participant asked about IT and the generation gap in the provider community. “The younger providers, they’re ready to go. Older doctors say, ‘you mean I’d have to type?!’ That has a chilling effect.... The challenges are really tough here. This is a good group to think about how you get to that point where providers are doing what they can do, and payers – from both the public and private sectors – are doing what they can do. But I think these cases haven’t been made yet. I haven’t heard the patients clamoring for this, the way they want other things. They’re getting pretty concerned about their premiums, now that they’re sharing more of those premiums. There is a business case to be made here across the board in terms of why we should invest and what we get back for it.”

Dwyer said he agreed with the point. “There is a business case here, and the complex value of who creates a benefit may be a constraint.”

Moving the ball forward

Dwyer was asked about the degree to which technical standards exist or are being developed

that would truly allow information to flow from institutions to dispersed ambulatory settings. If they don't exist, what can we do to bring them about?

He responded by noting that the American Hospital Association set up an organization called "The Alliance" that brought about 100 different corporations together with pharmacy and IT companies for meetings on common standards. Dr. David Brailer, the new White House health care IT czar, was at their most recent meeting. With regard to standards, "interoperability is top line for that board. So I don't see the constraints as something we will be unable to overcome."

Dwyer said the example would be pulling a consortium together to allow anyone in the U.S. to fill out their IRS forms by email. That required a standard to be created. "The government did not create that standard. It brought a consortium of private people together and asked: what would it look like?"

He said that example relates to a question raised earlier about whether there is a mechanism to bring IT into small physician offices. "It hasn't been invented yet. But remember a time when VISA wasn't here? If you can bring some new thinking into this field about what it would take to create some platforms that allow access very inexpensively to something that creates its power because of the size of its network, I think we'll be able to bring in those 5-person physician offices."

Another person asked: Isn't the role of the government, especially at the federal level, to get competing systems to talk to each other?

Dwyer responded: "I'm not sure what the answer is to that. It sounds easy to say yes, but there are some unique things about these organizations.

I'm not sure all of the languages about clinical care are going to be equally shared. There are going to be some elements that are going to get standardized that do allow us to move ahead. But I think it's too simplistic to say the federal government's going to make us all talk and put us all on an equal level. I can't sign up for that."

Another participant disagreed, saying: "I think it is a federal role, and the feds have acknowledged it will set the standards, just like the railroad gauge where all of them can talk to each other. The question is getting them together at the community level. It doesn't do any good if one doctor has a fax machine. All the other doctors have to have a fax machine to realize the value. The same is true with IT infrastructure. Enabling, giving the financial underpinning and the legal protection, community by community and state by state, for investment in community information systems is very important and something that I hope we'll talk more about."

“The Contribution of Health & Health Care to Community Productivity & Economic Development”

Presentation by Dick Davidson, American Hospital Association

On the question of value, the American Hospital Association (AHA) has begun to think about some things that I think will have tremendous potential over time: What is the impact in the community of delivering health care better? Where is the pay off? And is there economic value and economic pay off from the investments we make in health care?

When people think about hospital care, they only think about cost and affordability. No one talks about return on investment, but we need to have people thinking about it. We know the only way a society can be successful is if we can demonstrate a return on investment and that there is true value.

That’s what we’re here to talk about today: What is the contribution of health care to community productivity and economic development? The way I see it is in five simple words: “Health care, many happy returns.” And there are many happy returns – figuratively as well as literally. Figuratively, because we return people back to their lives, their families and their jobs healthier and earlier than we used to, and literally, because health care generates a lot of return on investment.

In the year 2000, this country spent \$4400 on health care for every man, woman and child. That was double the expenditure in 1980. What happened? What did we get for that \$2200, if we got anything? AHA created a research project around trying to determine value and return on investment in a collaborative venture with the Healthcare Leadership Council, the American College of Cardiology, the Pharmaceutical

Research & Manufacturers of America, and others.

We found that every dollar of additional spending in that 20-year period produced a return of between \$2.30 and \$2.40 in terms of improved outcomes and quality of life. During that period, we saw a 16% decrease in the death rate, 3.2 years added to life expectancy, a 25% drop in disability rates for people over 65, and 56% fewer days spent in the hospital. We’ve cut hospital day use by half in that period. That seems pretty significant to me.

If we hadn’t made those advances, we would have had 470,000 more people die and 2.3 million more disabled Americans. We would have spent 206 million more days in the hospital. In one example, heart attack patients used to spend 4 to 6 to 8 weeks in the hospital. Today we get people out of the hospital after a heart attack in 5 to 7 days. We get you up and walking around on the second to third day. That’s a very dramatic change in terms of the outcome. If these are working people, we get them back to work at least a month sooner than they would have otherwise. Then you look at the changes we’ve made in the treatment of cancer, and the number of people whose lives have been saved. We’ve made some significant progress with stroke as well. So we can begin to quantify a lot of these pieces.

Hospitals’ contributions to communities

In many communities, hospitals are the economic engine and often the largest employer other than the school system. Hospitals employ around

5 million people in the United States, which makes hospitals the second-largest private-sector employer. Sixty percent of our costs are tied to labor. When a hospital shuts down, in many cases it has a detrimental effect on the overall economic health of the community.

Hospitals are consistently a source of job growth and will be one of the biggest job creators in the years ahead. In a state-by-state analysis, hospitals accounted for between 4% and 13% of jobs, and they're growing. And we're pretty recession-proof.

Hospitals employ many people at salary levels that are higher than the average salary in the community, which produces a ripple effect. All of these people working in hospitals pay taxes and they support local businesses. Hospital dollars go to support purchases from local businesses. Nationwide, the ripple effect creates about 15 million jobs. More than \$1 trillion is ultimately generated into the economy as a result of activities in the health care sector. The hospital industry is driving a great deal of this.

Another economic contribution that hospitals make to their communities is the more than \$22 billion in uncompensated care provided each year. The numbers of uninsured patients are starting to grow, and they're going to grow disproportionately as more people are cut off Medicaid in California, Texas and other places. Hospitals' uncompensated care contribution to the community is going to become more significant and there will be challenges in how to deal with that.

Hospitals play the role of safety net. Last year 108 million people visited hospital emergency departments. Some of them were uninsured, but at least half of them had health insurance. Hospitals

become the provider of convenience, which is a pretty significant contribution to the community. We don't really know how to quantify that.

There are also additional services we provide to the community, which a lot of people don't know about, like special prenatal classes, immunizations, screenings, mobile health clinics, and smoking cessation and weight-management programs.

Suggestions for measuring the returns

We need to start changing the mindset of our society to think about health care as a return on investment, but we have a long way to go. In the military, they measure effectiveness of medical care by looking at return to duty. That's not a bad measure. We haven't been using that measure in the employer community. We need to quantify what it means to get employees back to work sooner. It seems to me that that has a dramatic effect on productivity standards in our economy overall.

AHA has a couple of recommendations. First, in its annual report on health care spending, the Department of Health and Human Services should include a measure of the health benefits that have been gained as a result of that spending. Let's get some balance, because right now everything is about spending and cost, not about return.

Second, we need further study on the role of innovation and improving health status in our communities. There is a lot to look at and we can begin to quantify it.

Third, employers and health care providers should quantify together the benefits of a healthier workforce. We ought to sit down together to find measures and indicators that can determine the return on investment.

Discussions of the uninsured should also consider the value of insuring more people, not just the cost. The cost of not insuring people in this country is enormous. We see it everyday in hospital emergency departments with people who, if they'd had care upstream, wouldn't be in such a bad situation downstream. It's a question of whether you're going to pay now, or you're going to pay later.

We'd like to see this kind of conversation going on. President Bush named his education reform proposal "No Child Left Behind." We ought to have a mantra in health care that says "No Citizen Left Behind" – meaning no citizen will be impoverished by a health experience. It seems to me we can do much better and prove our case, but we haven't done that yet.

Panel Discussion

J. Edward Hill, MD, President-elect of the American Medical Association

Dr. Ed Hill noted first that his viewpoint comes from the perspective of a country doctor. "I come from a model that is just one of many models in this country that I think is as close to ideal as any model for delivering care in a rural area," he said.

North Mississippi Medical Center, based in Tupelo, MS, is the largest rural hospital in America, with the largest rural primary care delivery system in the country. An integrated system throughout, North Mississippi Medical Center is now in 22 counties in Mississippi. It received the Davies Award three years ago for the best medical information system in the country and is one of the most wired systems in the

country. "And this is in Mississippi, the poorest state in the Union," said Dr. Hill. "So if we can do it, it can be done anywhere."

When the Medical Center commissioned a study to look at its economic impact on the region and on the state, the results "blew me away," said Dr. Hill. In one small county, the system is responsible for 5,500 jobs. It's responsible for over 12,000 jobs statewide. It generates about \$550 million in income for the state economy. "This medical center has five times the economic impact of the Nissan plant in Mississippi," he said. "We're only outdone by chickens – poultry is a big industry. So that was surprising."

North Mississippi Medical Center operates in a mostly fee-for-service market, said Dr. Hill. "As a consequence, every year we have a 3%, 4% or 5% margin, which has allowed us to put capital into our information system, and allowed us to put \$10 million out to start the residency program. So we were lucky in that respect."

"But the other thing we did is change the whole concept of cost-based care. We don't even use that term any more. We talk about care-based cost. You improve quality by using good evidence-based medicine, but then also you improve your bottom line enormously."

"We're using a lot of strategies developed by the Institute for Healthcare Improvement. One of the innovative ideas we're promoting in the community is school-based clinics. We also want to pilot pre-kindergarten electronic health records for all kids as the beginning of a personally owned health record. There is a lot of work going on in that area right now. The AMA is working to develop it, and we're trying to pilot it in our small area."

Martin Hickey, MD, Lovelace Foundation

Dr. Martin Hickey underscored the importance of being able to demonstrate value to the employer community now that employers are seeing 15%-40% increases in their health care costs each year. “The issue is about affordability,” said Dr. Hickey. “And it’s about change.”

Employers definitely want to see health care explore what IT can do to raise quality and reduce cost, said Dr. Hickey. So in New Mexico, he is working with others in the health care and employer communities to apply technology in ways that are designed to increase the value of health care.

One project underway in the Albuquerque area is the design and implementation of a community-wide data warehouse. To start, the warehouse will hold claims data for patients with four chronic diseases that really impact worker productivity: diabetes, depression, low back pain and pediatric asthma.

“Diabetes costs 12 million work days a year,” said Hickey. “So a diabetic patient who is sub-maximally treated and has Hgb A1c out of the normal range is 15% less productive. A patient with depression is 25% less productive if he or she is not maximally treated.” The rationale is that a data warehouse accessible to both providers and patients will improve the care of those with chronic conditions, and will therefore boost workers’ productivity.

The data warehouse will enable a chronically ill patient to no longer be just a recipient of care, but a participant in care, said Hickey. “A diabetic patient will be able to go in and get their hemoglobin A1cs. They’ll be able to interact, via

the web, to get their Body Mass Index (BMI). They’ll be able to compare their BMI to where it ought to be. Longitudinally, we’ll be able to have that information so they can see it over time. And, we will benchmark their data against where they ought to be in that cohort.”

“It will be the same with pediatric asthma patients,” he said. “Parents will be able to see where their child is compared with where they ought to be, see how many ER visits their child has had compared to a well-managed patient or other patients within the community.”

“The employer community is very excited about it,” said Hickey. “They contributed a significant amount of money to this project. As far as we know, this is the first time, in any major city, where all of the health plans, hospitals and health systems have agreed to participate and put money and in-kind contributions into a data warehouse on chronic disease.” The group supporting this project has applied for a \$1.5 million grant from the Agency for Healthcare Research and Quality (AHRQ) and has put up a matching \$1.5 million cash and in-kind contribution.

Allan Feezor, University Health Systems of Eastern Carolina

Allan Feezor observed that in most communities in eastern North Carolina, the hospital is the major employer. University Health Systems will spend a half billion dollars in that region in the next five years, he said. “We are an economic dynamo in eastern North Carolina.”

But speaking from his experience with CalPERS as a health care purchaser, Feezor noted that CalPERS spent \$15 million in the years he was there trying to build a health care database so

that the organization “could begin to second-guess the insurance plans and HMOs and to build its own profile of the effectiveness and efficiency of the providers.”

“The current AHA leadership is saying that the provider community needs to take the high ground in making that data available and as good as it can be,” he said.

According to Feezor, this is a critical time for employment-based health care coverage.

“Employers who are still trying to stay in the health care field are really asking for information about the value of the care they pay for. They’re saying please show us we’re getting the value we want for the money we do spend.”

Dottie Deremo, Hospice of Michigan

Dottie Deremo focused her remarks on the impact of caregiving on the productivity and economic development of the community. The current contribution from caregivers is enormous, she said. The economic value that accrues to the country each year as the result of unpaid caregiving is an estimated \$257 billion.

Caregiving will become even more important in the future, as the elderly and chronically ill populations expand dramatically and health care resources become scarce, she noted. So it is important to look carefully at the structures that support or undermine caregivers.

Caregiving has a direct impact on productivity, Deremo noted. Currently, 65% of all caregivers are between the ages of 35 and 65 – prime working years. Twenty to 25% of all employees are caregivers of elderly relatives. Forty percent of those also have young children at home.

According to research on the impact of caregiving

on employee productivity, 49% of employed caregivers arrived late to work, left early or took time off work. Eleven percent took leaves of absence, 4% lost job benefits, and 3% turned down promotions. According to a MetLife study on caregivers, the loss of productivity is in the range of \$11 billion.

“The stress of caregiving also has an impact on workers’ health,” said Deremo. Seventy percent of caregivers say that caregiving has had a negative impact on their health and 20% report significant problems. Fifty percent cited additional visits to the doctor, and employed caregivers use three times the prescription drugs as non-caregivers. “If you add the additional health care costs of this population, the total cost to employers each year is \$29 billion.”

The future is pretty grim, she said. In 1990, there were 11 potential caregivers for each person needing care. By 2025 there will only be 4 caregivers for each person needing care. The reality is that we need to redesign the delivery system to look at both the patient and the family, not just the patient, because chronic illness happens to a family, not just the patient.

The long-term care solution isn’t working, said Deremo. “We have a quiet revolution going on in this country where folks are doing everything they can to stay out of nursing homes. But unless we redesign what we are going to do, the future will be 800-bed warehouses for the elderly, with no one to take care of them.”

“So where do we go in the future from a delivery perspective? We’ve talked about a bi-modal approach of looking at prevention and looking at chronic disease. Hospice is the most elegant, cost-effective delivery model I’ve seen in all of my health care experience. It is the only one that is

prospectively paid, has a fixed price and an interdisciplinary model of care that includes both the patient and the family, and is longitudinal, including 13 months of grief support provided to the family after the death of a loved one.”

Deremo suggested using the hospice model and moving it upstream to be a chronic disease management model. “The structure already exists, and it includes physicians, nurses, social workers, spiritual care counselors, grief support counselors and volunteers, so it’s a community-based model,” she pointed out. “It’s a coordinated system that not only looks at physical health, but also the emotional and spiritual health of the patient and the family, and it’s done across settings that include homes, assisted living, nursing homes and hospitals.”

She also noted that hospice is cost effective. Her hospice gets reimbursed an average of \$130 a day, “and out of that I pay for all the providers (physicians, nurses, social workers, spiritual care counselors, etc.), hospital beds in homes, medications and supplies, and all of that is managed.”

Panel Q and A

Incentives to drive innovation

In response to the panel, a participant remarked that “what we really need is true innovation in our health care delivery system. In my years being on the payer side, what I see is a very monopolistic and oligopolistic system. That is not the kind of environment that drives innovation. It’s a more competitive environment that drives innovation.” His question to panelists: How can we really be innovative?

Dr. Hill clarified his earlier suggestion about implementing a comprehensive school health program. Not only would it include physical education, but also psychological testing and counseling, First Aid training, and self-care. We can also do more to promote home-based care through the use of web and video technology, he said. “We can do those things and we must start early, not late.”

Dr. Hickey followed up by noting that there is a real opportunity to shift the locus of care. One project he is working on is the idealized design of a “smart clinic” – “you would come in and swipe a card, just as you do at the airport now, and get all your registration done with that, without having to go to the front desk. The visit may not even take place at the clinic, because with a videophone it’s a very easy technology. It’s really about shifting the locus of care into the home.”

Feezor noted that reimbursement for technology costs is a major policy issue that the Department of Health and Human Services needs to look at. “I think it’s another case of ‘show me the money,’” said Deremo. “In reimbursement, the tail wags the dog.” Because the technology exists today, Deremo said she could foresee a two-tier pricing system where patients pay a lower premium if they have a primary care home health package with interactive video that they use first, and a higher premium if they prefer all of their encounters with providers to be face to face. “Unless you have financial incentives, it will be change on the margins,” she said. “But we won’t get the kind of massive change you’re talking about.”

Davidson observed that “in our society, you get what you reward. That whole notion permeates a lot of this discussion, in terms of innovation. That

is where the payer and provider communities have a lot of work to do.”

A participant asked the panelists to “help us employers understand how the health sector’s efforts to move forward on medical records and technology will be integrated with the standards developed by HHS that are coming out on a nationwide basis.”

“As I’ve mentioned before, we’re eventually going to have to be on a secure, web-based system,” said Dr. Hill. “And there are a lot of barriers there, most of them entrepreneurial and economic. When we reach that point, then the availability of information by any individual or employer, with firewalls of course, will be available to everybody.” In addition, “we could have a personal health care record for every patient that they own themselves. I think that’s in the very, very near future. The other thing is electronic systems of care. Many of us now are piloting telemedicine. We’re finding some of it works very well, but some of it is a disaster. We’re also finding no one reimburses very well for it yet.”

But Dr. Hill said he thinks telemedicine will move rapidly into the schools. “We have it in 2 elementary schools now. We find the teachers don’t have to leave work to take care of their medical problems, parents don’t have to leave work to pick up their child any more to go to the doctor, and it’s amazing to think of the cost implications of that.”

“It goes back to the idea that you get what you pay for,” said Dr. Hickey. “The first thing we have to understand is how we solve this in private venture. Then, how do we put the incentives in for the privates to get over their issues of confidentiality and create the common templates

and the interfaces? Maybe we need a Marshall Plan, but it probably needs to be run by the government. Once we do that, I think the barriers will fall. But there has to be an economic rationale for doing it. We have to turn to the economists and the people to ask, how do we put that together on the federal policy level?”

A participant suggested that policymakers need to understand the importance of a healthcare IT infrastructure within the context of homeland security. “If we have a disaster or terrorist attack, we have to have the IT available,” he said. “If we have a disaster, you don’t have time to question people what their allergies. Give them a smart card. I think if we’re serious about homeland security, we’ve got to get the government to understand that having a coordinated IT system is as important as planes and security at the airport. It should give them incentive to pour money into IT for hospitals.”

Supporting new organizational models

Mary Pittman of the Health Research & Education Trust (HRET) noted that there is clearly a need for new organizational models and new ways to train providers that incorporate new ideas and innovations. The concept of the Healthy Communities Fellowship, sponsored by HRET and the American Hospital Association, is to bring together cross-disciplinary folks to take a look at creating healthier communities. “They have come up with some incredible action plans that cut across organizations. These are multi-disciplinary models, such as creating school-based clinics or beginning to use technology in new ways. We also have a Patient Safety Fellowship that is doing the same thing. It’s bringing together teams and the learning is incredible.”

“Many of us support the team approach to care,” said Dr. Hill. “The problem is that no one is reimbursing for it. It’s the absolute right way to take care of people, but somebody’s got to fund it.” In response, Deremo observed that hospice is required by law to use a team-based approach to care and is actually reimbursed that way. “So again, it drives a different set of behaviors.”

“Developing New Financing and Care Delivery – Next Steps/Public Policy Implications”

Presentation by Jack Wennberg, MD MPH, Center for Evaluative Clinical Sciences

In looking at practice variation and its remedies, we have traditionally viewed the “system” from 30,000 feet and characterized practice variations as they occur between regions. But recently we’ve been working to convert traditional small area analysis into a hospital-specific analysis – applying the same measures we developed for regions to characterize and profile population-based performance for each hospital located within a given region. Hospital-specific information opens up a lot of opportunities for action. I want to address how hospital-specific performance measures, coupled with changes in reimbursement policy, might be used in reforming Medicare.

The problem of unwarranted variation

When I first began my work in small area analysis, much of the variation couldn’t be explained by traditional theories concerning supply and demand in medical markets. But over the years, we have learned that much of the variation is unwarranted – it can’t be explained by illness, patient preferences or evidence-based medicine. We find it useful to look at unwarranted variations in terms of three categories of care. The categories are important because the causes differ and the remedy differs according to category.

The first category is effective care. Effective care includes treatments that have been demonstrated to work by clinical trials and where the benefit is so clear and the risks so minimal that people who have the condition should get the service. Here we are talking about such treatments as the use of

life-saving drugs for patients with heart attacks. In our study of regions – as well as hospitals – we see systematic underuse of effective care measures throughout the United States. The interesting thing is that less than 10% of health care spending among Medicare enrollees is for services that fall into this category, even when you count hospitalizations for conditions for which patients need to be hospitalized, such as a hip fracture or colon cancer surgery. Moreover, spending at the per capita level, namely at the regional level or the hospital level, is not correlated with the effective care measures. Some of the poorest and lowest spending states do the best job in providing effective care to those in need.

The second category of care is what I call preference-sensitive care. Preference-sensitive treatments are for conditions for which more than one treatment is available and the alternatives have different outcomes, so patients ought to be involved in the decision of which treatment is the right one. The best example would be breast cancer surgery where both mastectomy and lumpectomy are options. They have the same outcome in terms of survival, but all the other outcomes are different. Across the U.S., the regional variations are so huge that it is highly unlikely that patient preferences are driving the variation. Regions right next to each other can have radically different rates. When you trace the variation back to its origins it’s got to do with the opinions of local physicians.

Unwarranted variation focuses attention on the doctor-patient relationship and what’s going on

there in terms of the possible misuse of care. The clearest example of preference-sensitive care is elective or discretionary surgery where physician opinion plays an important role in determining utilization. Because of these flaws in the way treatment choices are made, the “right rate” for a given surgical procedure is not known. According to our best guess, about 35%-40% of Medicare spending is for services that fit this category. It is of interest that variations in use of discretionary surgery are uncorrelated with variations in Medicare spending. On average, the rates of surgery are about the same in low cost regions such as Minneapolis or Portland, OR, as they are in high cost regions such as Miami or Los Angeles.

The third category we call supply-sensitive care. Here we are talking about the use of physician visits, diagnostic testing and imaging, hospitalizations and use of intensive care. Most of this care is going for the treatment of chronic illnesses. The frequency of use of such services is what we are concerned about – the interval between revisits to physicians, the frequency of imaging tests, the probability of hospitalization and the chances of ending up in an intensive care unit (ICU). The frequency of use is highly correlated with the supply of resources. And it is the frequency of use of this category of care that “explains” the more than two-fold difference in Medicare spending among regions.

Is more frequent use of these services among equally ill patients adding value? We think not. Regions with high intensity of use of these services (and greater Medicare spending) do not appear to have better outcomes. Indeed, the evidence is that the outcomes are slightly worse, and increasingly so as a constant function of care intensity. In other words, in most regions, there appears to be an overuse of supply-sensitive care. What is the

corollary? Low intensity regions such as Minneapolis and Portland, OR, provide benchmarks for the efficient management of chronic illness.

Remedies for unwarranted variation exist

The important message is that remedies are available for each category of unwarranted variation. The nation is now concentrating primarily on “fixing” the problem of the underuse of effective care. We’re all talking about getting information technology (IT) systems in place so that we can reduce medical errors, make sure people with heart attacks get their beta blockers and diabetics get their eye examinations, lipid tests and HgbA1c tests. This is important progress, but it is addressing only a small part of the problem and one that is not related to variations in spending. What is being neglected is implementing remedies for variation in discretionary treatments such as elective surgery and overuse of supply-sensitive care.

For preference-sensitive care, the task is to improve patient decision quality. There is a growing clinical trial literature which shows that the quality of patient decision making for discretionary care can be improved by the systematic use of patient decision aids – interventions that inform patients of what is known and not known about the various treatment options for a given condition; and clarify the importance of patient values in selecting the treatment that is right for the individual patient. The problem is that decision aids have yet to be widely implemented into everyday practice.

Another problem facing both clinicians and patients in choosing among alternative treatments is the uncertainty that exists about the outcomes.

I am talking here about scientific uncertainty – the uncertainty that exists when the outcomes of alternative treatments have not been systematically evaluated. The problem relates in large part to federal science policy (or the lack thereof). There is very little federal support for outcomes research and no systematic policy for evaluating the common practices of medicine. Again, there are models of how this can and should be done. I mentioned yesterday my concern about the loss of the Patient Outcomes Research Team, which had once been the flagship program of AHCPR, the precursor agency to the Agency for Healthcare Research and Quality (AHRQ). The good news is that the NIH is beginning to support clinical trial networks to compare surgical to non-surgical interventions (for example, the comparison of surgery and medical management for back pain). The bad news is that this program depends entirely on the initiative of the principle investigator and the willingness of a given institute of health to support such research. What is needed is a programmatic response, one that causes assessments to happen along the lines of the model provided by the abandoned Patient Outcomes Research Team strategy.

And finally, there are models for rationalizing the care of those with chronic illness, primarily the Wagner Chronic Disease model. But the Chronic Disease Model so far has only worked fully in the pre-paid group practice setting. Pre-paid group practices have 3 advantages over fee-for-service that facilitate the active, population-based management of chronic illness and promote competition on the basis of quality and efficiency: (1) They have population-based information on the clinical status and the use of treatments and resources of the patients they serve, (2) they operate under a budget that gives them maximum flexibility in allocating resources to

reach quality goals and to achieve efficiency in care management across the sectors of care – acute hospital, clinics, home health care, nursing home and hospice care, and (3) they face economic incentives that constrain capacity and promote high quality as a means of achieving competitive advantage in a regional market.

The importance of population-based, provider-specific information

So how do we achieve similar advantages for health care organizations now serving fee-for-service populations? Take the issue of population-based information first. Our research can help. Over the past few years we have learned that it is possible to identify the population served by a given fee-for-service provider and to measure performance in a fashion analogous to that of the pre-paid group practices. This can be done because chronically ill patients tend to keep using the same provider repetitively; thus the epidemiologist can create cohorts of chronically ill patients to compare performances. For example, we see striking differences in efficiency of use of supply-sensitive services among academic medical centers, even among those located in the same state. We also see evidence of underuse of effective care (compared, for example, to the scorecards of pre-paid group practices) and misuse of discretionary surgery, as witnessed by wide variations in risk of surgery among academic medical centers.

The cohort method can also be used to measure workforce inputs and facilities, providing population-based measures similar to those available to managers of pre-paid group practice – for example, the number of FTE physicians by specialty or the FTE nurses active in inpatient care or the number of beds per 1,000 allocated to the care of these cohorts (which measures differ

remarkably among cohorts served by academic medical centers). Finally, the claims data can be used to provide estimates of the actuarial costs incurred by specific providers in managing chronic illness, not just for physicians and acute hospital care, but for each sector of care currently paid for by Medicare including home health, extended care, outpatient care and hospice care.

In theory, the information could be used by clinicians to implement strategies to reduce unwarranted variation. It could also be used by management in making decisions that affect the capacity of the system relative to the size of the population served. And the information on actuarial costs of managing chronic illness, which provides an estimate of the “budget” of the various sectors of care, could be used to create a population-based strategy for reallocating resources and integrating sectors of care in the management of chronic illness.

The importance of reforming the reimbursement system

The problem, of course, is that fee-for-service incentives work against the reduction of unwarranted variation. Work is paid for on a piecemeal basis; resources are not allocated across sectors of care to serve the needs of patient populations; changes in demand for discretionary surgery that may occur subsequent to the introduction of shared decision making patient decision aids imply financial risks to health care organizations if rates drop; savings accrued by reducing overuse of supply-sensitive care, particularly acute hospital care, are not realized by management and cannot now be reallocated to serve the needs of the population. And unlike the pre-paid group practice model for managing patient populations, there is only a tenuous link between decisions that affect the capacity of the

local care system and per capita costs; fee-for-service reimbursements rewards utilization and does not selectively penalize health care organizations with excess capacity and high per capita rates.

The “pay for performance” movement seeks to reform health care organizations by shifting reimbursement policy to reward high performance. However, the focus to date has been almost exclusively on the underuse of effective care and other examples of medical errors. But a piecemeal approach to quality and efficiency invites unintended consequences. For example, rewarding or punishing health care organizations on the basis of volume of surgery they perform may reduce post-operative mortality and complications, but it ignores the fundamental question of whether the patients actually preferred that procedure rather than its alternative. Indeed, unless the rewarding of high volume hospitals is linked to the implementation of shared decision making, the net effect may be the increased misuse of preference-sensitive care because hospitals with below minimum volume have a strong incentive to increase volume.

The focus on reducing underuse of effective care and medical errors also misses the significant opportunities to finance the re-engineering of systems of care using dollars recovered from reducing waste. Everyone believes that implementing IT will reduce medical errors and improve care management. But where is the capital? One source is the reduction of overuse of acute care. We have estimated the budgetary effects of reducing regional disparities to the level of regions with efficient benchmarks for supply-sensitive care. This would, in theory, result in about a 30% reduction in spending for traditional Medicare. But this waste can only be recovered if pay for performance focuses on the reduction of overuse of supply-sensitive care.

Aligning incentives to improve quality and efficiency of care

In a recent article in *Health Affairs*, my colleague and I suggested a strategy for Medicare reform that depended upon a 2-step process. The first step was a demonstration project based on a partnership between federal government and health care providers who wished to develop new models of organizing and financing care that gave them the necessary tools to reduce unwarranted variation in each of the 3 categories of care. As part of the agreement, the provider organizations would be given the opportunity to design and propose to the Centers for Medicare and Medicaid Services (CMS) a financial plan that would support the infrastructure required to reduce medical errors and underuse of effective care, introduce shared decision making as a remedy for unwarranted variation in discretionary surgery and effectively and efficiently manage populations of chronically ill patients. It also called upon the AHRQ to participate with the provider organizations in organizing studies to improve the measurement of quality and efficiency; and upon the NIH to work with providers to undertake the necessary studies to reduce scientific uncertainty about health care outcomes.

If the models developed and tested in the first step prove effective and welcomed by patients and providers, the second step would involve their wide implementation to assure that all Medicare enrollees have access to high quality care and to move the country toward the benchmarks provided by low cost regions such as Portland, OR, and Minneapolis. Strategies to pay for performance based on the results of the demonstration project would be designed and implemented by CMS and, we suggest, private payers. Provider-specific information on actuarial costs and use of services and resources in

managing chronic illness would be key for identifying relatively efficient providers within a given market and rewarding those who agree to reduce unwarranted variation in all 3 categories toward national benchmarks for quality and efficiency. Pay for performance that rewarded efficiency and quality in all 3 categories would presumably also create incentives to motivate less efficient providers to make adjustments to reach regional benchmarks for efficiency and quality – and eventually strive to meet national benchmarks.

The Medicare Modernization Act of 2003 contains two initiatives that recognize the importance for costs and quality of improving the management of chronic illness in fee-for-service Medicare. Section 721 provides for the implementation of chronic disease management programs, independent of specific provider groups, modeled after successful private sector efforts to reduce costs and improve quality of care. It relies primarily on disease management companies or other successful bidders who are given responsibility for implementing disease management for an entire region. Its principle advantage is scalability: it does not depend on leadership among health care providers and presumably can be widely implemented through incentives directed primarily at disease management companies and their affiliates. Its disadvantage is that it does not deal with more fundamental flaws in the organization of care and in the reimbursement system that make it difficult if not impossible for health care organizations to deal with excess capacity in the acute care sector; to implement shared decision making; and to integrate sectors of care to realize the Wagner model for community-based and population-based management of chronic illness.

Section 646 of the Medicare Modernization Act of

2003 provides for a demonstration project geared to specific providers who, for patients they serve, agree to integrate care among the sectors of care, reduce unwarranted variation in all 3 categories programs and propose reform in reimbursement to support their infrastructure and reward performance. Its principle advantage is its focus on redesign of fee-for-service “systems” to emulate pre-paid group practice models and the rationalization of reimbursement, geared to improving quality by reducing unwarranted variations. Its disadvantages include uncertainty about whether the demonstration project will succeed and concerns about its long-term scalability, which depends on still untested pay for performance concepts.

Panel I: Provider Respondents

Carleton Rider, Mayo Clinic Foundation

Carleton Rider framed his remarks in the context of the Institute of Medicine’s *Crossing the Quality Chasm* report, which points out that quality is a system property. Improving quality of care requires changing the systems of care. “I’d like to talk about the integrated group practice system of care in the dimensions that the IoM report describes.”

Rider said that a group practice system of care, like Mayo, has a number of characteristics that enable it to provide high-quality care. These characteristics include continual peer review and a common medical record, both of which tend to reveal errors quickly. “There is also the capacity to retain earnings, which allows for investments in IT and computerized physician order entry (CPOE).”

“There is an atmosphere of collaboration and learning that’s often lost in solo practice,” he said. “Medical groups have emerged as leaders in reducing medication errors by integrating clinical pharmacists into the team.” In addition, “there’s an evidence-based culture. Many groups devote significant funds to clinical research. Groups have electronic medical records (EMR) and the ability to develop data warehouses. They have been early adopters of care management strategies.”

Dr. Steve Shortelle of the University of California at Berkeley is doing research documenting the effectiveness of group practice, Rider said. “Here are a couple quotes. ‘Multi-specialty groups are more likely to use recommended evidence-based care management for patients with chronic illness.’ Another is: ‘Health plans closely affiliated with tightly managed physician groups perform significantly better on clinical performance measures with no difference in satisfaction.’”

A group practice also offers patient-centered care. Professor Lynn Barry, a prolific writer on health services research, describes care given in a group practice as “team service,” Rider said. “Professor Barry describes team service as the ability of an organization in a play-like manner to mold its resources to meet the needs of the patient. At Mayo our primary value is that the needs of the patient come first. In order that the sick have the benefit of advancing knowledge, a union of forces is necessary. It has become necessary to develop medicine as a cooperative science, which I think plays to the inherent power of groups.”

Group practices also offer care that is timely, Rider said. “In group practice we talk about one-stop shopping – integrated care under one roof. Concepts of next-day surgery or group appointments are quite common in groups.

Group practices are efficient. “They minimize overhead by sharing services. Many of the larger groups integrate the inpatient and outpatient practice for more seamless, efficient care.”

“And finally, there is the equity dimension,” said Rider. “For most groups the only priority is the severity of the patient’s illness. Peer review and selection of its staff members ensures a high, consistent quality.”

“After a long career in group practice at Mayo Clinic and other groups, I’m convinced this model of care is one we need to figure out how to replicate, maybe in new and innovative virtual manners. But the idea of forming teams and working together in an integrated manner I think really will be significant.”

Father Michael Place, Catholic Health System

Father Place began his remarks by pointing out the importance of considering the language we use in talking about health care and patients. “What do we do to ourselves if our vocabulary is entirely the vocabulary of ‘customer,’ ‘consumer,’ ‘economic value,’ and ‘return on investment’? It is not to say all of those are not good and important categories and very valuable tools for analysis and social conversation. But I would suggest they are not fully adequate for comprehensive analysis.”

“As a nation we need to have a conversation,” he said. “Incremental or reactive change, or tinkering, is not going to get us where we need to go. We really are talking about a process of social change. So what are the questions that should drive that larger conversation, within which this current conversation should be a subset and tool?”

Father Place suggested there is a need for two types of conversations. “First, what constitutes a good society? And within that, what is the significance of health care as a human right, and how is the provision of health care understood as a social good? If we come to agreement anywhere around that, and figure out what words we will use as a country to describe our understanding of the needs and significance of health care to communities and individuals, we will provide the basis for real change.”

Second, Father Place suggested we should look at what is needed of all components of society for us to have healthy communities and healthy individuals. “If you get into a conversation about that, you are immediately driven to the environment,” he said. “How many dollars impact health care because the air is not clean or because the water is not clean? What has happened as we have devolved the public health sector?”

The second level question is: What is the most appropriate response by individuals and communities to episodic and chronic illness? “Once you begin to say it is not just providers, but it is also families and communities, as has already been suggested, then they become a whole set of stakeholders,” he said. “How can you help people engage chronic illness in their homes? That requires churches, synagogues, mosques – with a full infrastructure – along with extended family members, to become stakeholders to help a patient’s capacity to stay at home. Managing chronic care will never adequately progress without these factors involved.”

A third issue is how we, as individuals and communities, prepare people for a happy death. “We run from death in this country,” said Father Place. “We cosmeticize it. Hospice is, in fact, a

great gift to us. But we run from it, and therefore we are driven to spend dollars we do not necessarily need to spend, and in the wrong setting. So I would suggest we need to have those kinds of conversations.”

“Finally, we need to ask ourselves the question: what does it take to be a change leader?”

Towards that end, the Catholic Healthcare Association board has just confirmed that it will make the following five commitments:

1. Agree to report on quality indicators, not for the purpose of meeting some federal standards, but as a vehicle to introduce evidence-based medicine; to try and change the way we deliver.
2. Demonstrate commitment to chronic care by giving employees access to diabetes disease management. If we rewrite the protocol of our insurance and institute practice patterns so that every employee in our institution who has diabetes can have management of the disease, we put lost dollars up front to gain dollars at the far end. But this is done primarily for the purpose of a healthy workforce.
3. Prevent future health problems for employees through disease management of obesity. Again, this means changing the way we think about the partnership and the practice patterns.
4. Promote adoption of national technology standards. If 600 Catholic hospitals in this country all agreed that the next time a contract comes up they will say to the vendor “we will not consider you unless you have agreed to a conversation about national standards,” there would be progress.

5. Serve as a vehicle to collect and disseminate information on health delivery improvement. The goal is to get the ministry to think about how we can be change agents in the way we do health care. That will make the other conversations more credible conversations.

Linda Stierle, MSN, American Nurses Association

Linda Stierle began her remarks by noting that America’s 2.7 million registered nurses deliver many essential health care services in the United States today, in a variety of settings. “Nurses know firsthand about the inequities and problems in our nation’s health care system,” she said. “As 24/7 caregivers, we know all too well how the system succeeds for some, but continues to fail all too shamefully for too many others.”

The ANA is a long-time advocate for comprehensive health care reform, going back to the late 1980s, she said. “In 1992, the larger nursing community, in conjunction with some other health care organizations, published a document called ‘Nursing’s Agenda for Health Care Reform,’ which says: ‘To be most effective, a health care system must do more than provide equipment, supplies, facilities and human resources. It must guarantee universal access to an assured standard of care. It must use health resources effectively and efficiently, balancing efforts to promote health with the capacity to cure disease. And it must provide care in convenient, familiar locations. And it must make full use of the range of qualified health professionals and diverse settings for care.’”

“Specifically, ANA believes that there really must be a fundamental shift in orientation from one with a predominant focus on illness and cure to one of wellness and care,” said Stierle. “The

current system, with its focus on the costly treatment of illness, must be dramatically reformed to a system that emphasizes primary health care services, management of chronic illness, and the promotion and restoration and maintenance of health.”

“To promote greater use of disease prevention and primary health care services, these services must be available in convenient, familiar sites, including schools, homes, workplaces and other community facilities that are readily accessible to the consumer or patient. And these services must be delivered by a diverse, culturally competent nursing workforce.”

We must reshape and redirect the system away from inappropriate use of the expensive, technology-driven, hospital-based models we currently have, and a balance must be struck between high-tech treatment and prevention,” said Stierle. “It is the nursing community’s belief that the system must emphasize and support health promotion and disease prevention, such as coverage for immunizations, prenatal care, health screenings to include colorectal exams, Pap smears, mammograms, and hypertensive screenings, which have all been proven effective in preventing costly and devastating disease.”

Moving to a wellness orientation will greatly increase the need for primary care providers, Stierle said. “So to meet this end, nursing calls for a greater use of a range of qualified health care professionals in order to increase access to appropriate health care. Registered nurses, including advanced practice registered nurses, are well positioned to fill many of the current gaps in availability and accessibility of primary and preventive health care services. Today more than 160,000 registered nurses have advanced education and training in providing primary care

services. Such practitioners could be better utilized. To increase access to care, we must broaden our understanding of who is a primary care provider in our society and allow for reimbursement of those services. Many advanced practice registered nurses are prevented from practicing fully due to artificial barriers, including restrictive reimbursement policies and supervisory restrictions on their nursing practice.”

“Finally, we must engage in health workforce planning to ensure an ongoing, appropriately educated supply of health care providers across the continuum of care givers. Past and present shortages of RNs and other health care professionals clearly impact both the availability and cost of health care services. Specific to RNs, this workforce planning must take into account the research that demonstrates there is very clearly a link between RN staffing and improved patient outcomes. Such workforce planning must include data collection that can be used to better determine the future demand in such a way that health and education policy can appropriately adjust. And while human resource planning is absolutely necessary, such planning will only be successful if the work environment is conducive to promoting excellence in care and retention of the health care workforce. The continual churn of turnover and shortages in the health care system, with regard to the quality of care and patient safety, are a tremendous drain on finite resources.”

Stierle said these fundamental changes in our nation’s health care system are “really long overdue.” However, she notes that, unfortunately, there hasn’t been much progress since the nursing community put together its plan for health care reform. “If anything, we’re in a worse position than we were in 1992, when there was tremendous interest in improving the health care

system,” she said. “My sense is that now we’re at another one of those points of great potential for change.”

“I believe the larger nursing community would support everything I’ve heard over the last two days. We’ve clearly articulated the complexity of this issue and understand there is not a single answer. There are multiple answers. But I am absolutely convinced that within this room and within our industry we have the collective knowledge, wisdom and experience to address the need for major health care reform. We need a comprehensive plan, and we need to move forward together.”

Richard Sperry, MD PhD, University of Utah School of Medicine

Dr. Richard Sperry focused his remarks on offering recommendations for improving the role of the academic medical community within the health care system.

Students come to medical school very idealistic, he noted. “They want to do the right thing. They want to learn. They want to practice medicine in the right fashion. They want to serve. And we give them a great deal of material. So at the end of their four years of medical school, they’re scientifically very well trained. But ultimately what we teach them in the classroom is overshadowed by what they learn from their mentors, other physicians that they practice under. They model the behavior of their mentors.”

“The behavior that we’d like students’ mentors to model has been described as patient-centered or family-centered care,” Dr. Sperry said. “We’d like them to practice well in a team setting. We’d like them to do evidence-based medicine. And then in that vast sea of patient encounters, where it’s not

always a binary yes/no, to apply the knowledge they’ve attained to make a reasoned and sound judgment and to continually try to improve their judgment by writing down what they do and the outcome from it.”

“Unfortunately, faculty members don’t always model good behavior when it comes to the practice of medicine,” he said. “I think first and foremost, if we’re going to teach medical students and other health care professionals properly, we need to put our own house in order in terms of how we practice medicine. Academic medical centers (AMC), by and large, focus on research, often in very arcane areas of medical treatment. That often is such a dominating focus in AMCs that it takes over these other aspects of care that we really should model for our students.”

“Academic faculty need to measure specifically what they’re doing and evaluate their performance and try to improve and become the models that our students need. I think it’s important in academic medicine that we not stop with our students. We need to look to the broader physician and health care provider community. And I think we need to reach out in at least two ways. When our students leave their training programs, they begin to model some of the behaviors of their mentors. Then they begin to mimic the actions of their colleagues and their partners. And I think that means that we, as a health care community and AMCs, need to be serious about educating continually the physician-provider and other providers in the health care community.”

“It might come as a surprise to you if you haven’t spent time in an AMC that teaching is not a very valued act,” Dr. Sperry continued. “Biomolecular research is very highly valued. But teaching is not. We don’t have strong ways to reward good

teachers in our promotion processes, in our tenuring processes, and in the reward structure. Where we do have those kinds of rewards, they're generally for teaching medical students, not for synthesizing information and getting it to the community in a way that would help very busy practitioners. So the second recommendation is to get very serious about our role in education."

"Third, I think the academic group practice community lags behind others in terms of establishing true cooperative practice databases to evaluate what they do and how they practice. And yet there is sufficient expertise on most of our faculties to really contribute significantly to the establishment of these kinds of databases. We don't implement very well the things we discover. It's something that I think is a problem for AMCs in general. Those of us who champion outcomes research are often shot down. Unfortunately, those who are responsible for making ultimate decisions are influenced by the fact that 'indirects' from research are about the only source of discretionary funding they have. So the hard-core research enterprise seems to overshadow other aspects of health care and particularly outcomes research based type of health care."

Panel II: Payer, Purchaser and Consumer Respondents

John H. Warner, Jr., PhD, Science Applications International Corporation

Dr. John Warner began his remarks by saying that he felt "like an anomaly" at the meeting. "I'm one of I think only three people here who are not in health care organizations," he said. "There is not much representation of non-health care people, which is sad. It means the conference ends up

being health care people talking to health care people. I must say that many of the things being discussed are very reassuring in many aspects. But there are a lot of other stakeholders out there."

Health care is extremely important to business, he said. "First, it has to do with quality of life for employees and their families." An employee-owned company, SAIC has 42,000 employees – half in the company's self-insured plan and half enrolled in HMOs and PPOs. "Obviously, a healthy employee is a productive employee, so there's a natural business aspect to that. In the case of an employee-owned company, there's much more than that because we all own the company."

The second concern for business is obviously the cost of the health care benefit, Dr. Warner said. "In our case, we've seen the compounded growth in our health care costs at 15% each year for 5 years. That's after we eliminated half of the HMOs from the pool because they were too expensive. Each year we go through a regional negotiation and try to get the best [value] for our employees. But nevertheless a 15% [cost increase] per year is not sustainable, obviously, by any corporation. In addition, what we've done is cost-shift. Years ago, we were 80/20. It's more like 70/30 at this point."

"I think it's extremely important to remember that businesses need to remain competitive. We deal in world trade. We have to compete everywhere." The benefits that are paid through businesses are part of the cost of doing business, he said. "When health care costs are increasing at 15% per year, it leads to increasing problems with competitiveness."

Among the actions companies can take are active participation and education in the debate about alternatives, said Dr. Warner. "There are various

organizations like Leapfrog and this organization. In our case, we participate in the California Chamber of Commerce and the San Diego Regional Chamber of Commerce, and we also meet with and talk with our federal, state and local politicians in this particular area.”

But SAIC has also been very active in providing its employees with access to information that is designed to help them stay healthy. So the company set up an intranet where its employees can find information on factors that contribute to illness, like obesity, depression, smoking and substance abuse. “All of these are on an internal intranet for our employees who really want to participate in their own health and wellness,” said Dr. Warner. “That kind of thing I think industry should really want to support, including the health care industry.”

SAIC also decided to implement case management. “That was driven by a situation several years ago when we had four babies delivered in two years that cost our self-insured program \$2 million,” he said. “That was the wake-up call. But when you think about what is happening to a family when a woman is delivering a premature baby, and all the types of trauma they go through, it’s a quality of life issue too. That’s why we have case management, and I think businesses can do much more in that particular area.”

Alissa Fox, Blue Cross Blue Shield Association

In her comments, Alissa Fox focused mainly on the issue of pay-for-performance. Blue Cross Blue Shield plans have had a number of pay-for-performance initiatives underway for a long time, she said. “Plans are constantly looking at what they’re doing, weighing it and evaluating it. The most successful

are the ones that are collaborative and where we’ve worked very closely with doctors, hospitals and others to implement things that make sense.”

In one example, Anthem Blue Cross Blue Shield has different programs in the nine states in which they do business. “They use a comprehensive set of metrics to develop a hospital report card in three areas: patient safety, improved clinical outcomes and patient satisfaction. There are incentive bonuses for getting a good score.”

Another type of approach in Michigan is something called the “comprehensive, all-inclusive, percutaneous, management project” – where they’ve worked with the University of Michigan, along with 18 hospitals throughout the state, to create a data registry. After collecting all of the data, they analyzed it, looked at best practices, and got that feedback to physicians’ practices. “They found within one year that they really saw lower mortality and reduced Coronary Artery Bypass Grafts (CABG), Fox said. “They think they saved almost \$8 million.”

“Plans have a whole host of other types of strategies they’re working on,” she said. What BCBSA has done this year for the first time is partner with Harvard University to get them to look at programs our plans are doing and to come out with a quarterly report on which are the best ones, are they working, and what should other payers look at in terms of best practices. We just came out with the first one.”

There’s no magic answer, she said. “We’re constantly learning, refining, and replicating where it makes sense. We think we need to get more products out there so consumers can pick one that meets their needs. We also believe that having the consumer making a lot of these decisions will help on the cost front.”

Fox warned of the need to be careful about promoting evidence-based medicine. “I know when we’ve been too aggressive, there have been restrictions. We also have to be mindful that a lot of times people don’t like when you try to incentivize quality or incentivize cost-effective types of strategies.”

Fox said it is essential to be aggressive on the IT front. “Blues plans are very supportive of going to an interoperable system, but we need to do it in a way where we know where we’re going and do it very smartly.” In response to earlier comments suggesting that payers should pay for IT because they reap the benefit, Fox made three points. “First, we don’t really know how much IT saves. Savings are very questionable. Second, 60% of the marketplace in this country is funded through self-funded employers, so you can’t just get the funds from insurers. Third, for those of you in the provider community, HIPAA was supposed to save billions and billions of dollars, and I just wonder who in this room has seen any savings. Blues plans, I can tell you, have spent millions of dollars and haven’t received anything back.”

Fox’s last point emphasized the importance of focusing on affordability. “When we talk about doing more, we have to be mindful that the employer community and consumers are asking us to hold down the cost,” she said. “When we look at the uninsured, half of the uninsured earn less than \$50,000 a year, and for them it’s about affordability.”

Ellen Severoni, California Health Decisions

Ellen Severoni said she wanted to focus her remarks around three V’s: vision, values, and victory through collaboration.

On the subject of vision, Severoni said that “after 20 years of working as a consumer advocate, particularly in California, and thirty years of being a nurse, [it’s disappointing that] we actually don’t have a mission for the health care system. We don’t have a vision of what we want to do with these tremendous resources. And I’m struck by how easily a vision can be co-opted. So one thing we need to do as a group is commit our efforts to creating a vision of what the American health care system should be, and stick by it. Secondly, I think we need to ask our elected officials what their vision is for the health care system, and what their vision is of what we – those of us who are part of the health care system – should be doing.”

On the subject of values, Severoni said she wanted to focus on dignity and respect. Comments like “skin in the game” don’t belong in a conversation like the one we’re having together, she said. “And that’s just my opinion, but it comes from the idea of saying, ‘That is my skin that’s opened up when I open the hospital gown to get that mastectomy. It was my mother’s skin under the knife when she had ovarian cancer.’”

This is not a game, Severoni said. “We don’t think about it that way. So it doesn’t make sense for us to talk about it that way. I’m saying that, moving forward, let’s not talk like that anymore if we want to engage the public in a more formal conversation.”

On the subject of victory through collaboration, Severoni said that “every single good idea that has come today is something that has been crafted when we’re willing to collaborate with one another and to cross boundaries. That is the kind of thing that gets people motivated.”

“As Father Place said, we need to have an overarching framework against which we can ask some very specific questions like, should we do everything we can do? If not, who should decide? Without pinning ourselves to an absolute mission and vision against which all of these checks and balances of effectiveness and efficiency can be measured, I don’t think we can get very far.”

And finally, Severoni pointed out that the users of health care – particularly “the 5% of patients that use 50% of the resources” – can be a source of really good, innovative ideas about how to improve health care. “I know it’s very scary for people within the health care system to embrace the users, so to speak, as the fountain of innovations,” she said. “But I could recount 20 examples of work with health plans and medical groups where we asked patients and the doctors who served them how they would create a solution, and inevitably they would come up with the most innovative ways to make change. So let’s embrace that 5% and see them for the gold they really are.”

Panel III: Government Respondents

Michael O’Grady, PhD, U.S. Department of Health and Human Services

Dr. Michael O’Grady said he wanted to discuss Dr. Wennberg’s idea about the redesign of delivery and financial arrangements in the context of looking at the government’s role.

“So what can government do?” he said. “First, if you talk to the different stakeholders involved, you’ll get very different answers to that question.

But the one thing that I’d like to lay out as an objective is flexibility. We don’t know what delivery will look like 5 or 10 years from now, and therefore you want to be a little careful about how you lock things in stone because there’s going to be that need for innovation and you want to stay flexible. It’s important that government play an active role, but not stand in the way.”

“There are a couple of problems with what Dr. Wennberg laid out,” said Dr. O’Grady. “It sure looks like whatever way you cut it, providers are going to face a reduction in income, or at least a slowing in growth. I don’t know how you convince providers.”

In addition, he noted that although there seems to be a general consensus that there’s variation across the system in the United States, especially in the Medicare population, there doesn’t seem to be a consensus about what to do about it.

At this point, it’s difficult to see the policy options, in part because there isn’t as much research being done in the area of practice variations as there is in other areas. So that’s part of the issue, said Dr. O’Grady. “If we’re going to put out money, we have to think about how make it relevant to the real hard decisions to be made.”

“The other thing is there is not the evidence,” he said. “So I’d like to be a little incremental.” Dr. O’Grady suggested doing demonstrations as a way to explore creative and innovative options. “You might find it works, or you might find it doesn’t. That’s why we experiment.”

The other thing, in terms of outcomes research, is that the new Medicare bill includes about \$50 million for AHRQ to fund new projects. “One thing I would say to a community like this: I think

it will help, but hold your fire. If you do support it, you have to know that there will be other folks trying to take a shot at it.”

“There is a bottom-line question here,” he said. “There are big bucks involved. When the actuaries come in and talk about the baby boom retiring, there is a tremendous amount of pressure that will crowd out lots of things, unless something is done.”

Dr. O’Grady concluded his remarks on an optimistic note. “If you go in assuming nothing can change, nothing will change,” he said. “Yes, Washington is hard. But part of that is because of the diversity of the country. There are a lot of different opinions on how to solve these problems, and it takes a long, hard fight to work them out. So we need to stay open to change and try to stay flexible. It’s going to require all the tools in the toolbox.”

Irene Fraser, PhD, Agency for Healthcare Research & Quality

In her remarks, Dr. Irene Fraser focused on the research and information-providing role of government, and its multiple components. Health services research is a small component in the overall scheme of things in terms of the size of the budgets that go into health research, she said. “What we try to do is leverage that to the extent possible so that we can create as big an impact as possible. What health services research does is try to look at ways to improve the actual practice of health outside of the laboratory and to improve not just clinical practice but also the levels of system decisions. It’s not just evidence-based medicine, but evidence-based management and evidence-based policy-making.”

The cost component is, of course, critical and

we’re at a difficult juncture, she noted. “But I don’t want to lose sight of the fact that it intersects with an access dimension and quality dimension. And we still need to be making improvements in quality, which often yield improvements in cost.”

“A study that RAND did recently indicated that our chances of getting the right health care are about 50/50, depending on our condition. I think most of us would say we need to move ahead from that. The Institute for Healthcare Improvement did a study called “How Good is Good Enough?” in which they identified what an error rate of .1% would mean in the non-health care arena. The results would be a major plane crash every three days; the IRS would lose 2 million documents this year; and 12 babies would be given to the wrong parents each day. So we’re talking about trying to make some quantum leaps in improvements in quality.”

“There are several components to doing that. The first is measurement. If you’re going to improve anything, you’re going to have to measure it, in a consistent way, and in a way that everyone considers valid. That’s been a major role for research, not just for government but also for the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), the National Committee on Quality Assurance (NCQA), and now the National Quality Forum. That’s been a major role of the agency. But measurement is not enough. You have to combine it with data.”

“A second issue is IT,” said Dr. Fraser. “This is an area where the agency has been taking an increasing role. As has been mentioned, this year we’re providing \$50 million in grants for implementing IT, and we’re also doing some statewide demonstrations of interoperability. This is really exciting and important stuff.”

“The third issue is payment. There is a lot of movement going on right now in payment. We’ve been very involved in many of the initiatives. Certainly, the Center for Medicare & Medicaid Services has some major demonstrations. The Robert Wood Johnson Foundation and The Commonwealth Fund and the California Healthcare Foundation are providing funds and evaluation. I think there is hope that the pay-for-performance effort will provide the kind of value we’re talking about. I think it’s going to be very, very tricky. The critical issue is the alignment of incentives.”

“A fourth area is system design. You can have IT, you can have the right kind of payment incentives, and you can still have a dysfunctional system. With IT, you might just have faster dysfunctionality. So it will be important to get the design right to make it more patient-friendly and efficient. I know there are some initiatives to try to redesign delivery of care.”

“Finally, research is going to have to change,” she said. “The way we provide information to enable some of this change is going to have to change very, very dramatically. It’s been estimated that it takes 17 years to get 14% of knowledge generated from research to actually have an impact on patient care. That’s probably not fast enough for most us. Traditionally, research has been mostly supply-driven. We need to figure out how to make it demand-driven.”

Patricia Montoya, Secretary of Health, New Mexico

Secretary Pat Montoya began her comments by noting that New Mexico “is a state on the move.” It’s a state where innovation can occur, and that can be an incubator for change, she said. When Governor Bill Richardson took office in 2003, he

called on all of the state departments to bring forward bold ideas. “So we are taking that role of leadership and acting as change agents and as conveners to create change in the state,” she said. “That is something very new for us in our role as state government.”

New Mexico is doing some major behavioral health re-design. “In fact, people around the country are watching what we’re doing. It’s scary. Change is difficult. We don’t have the final blueprint. We’re going with what we think will work best and we’re trying these different things. But it’s something that needs to occur.”

The other piece that the Richardson administration is working on is a comprehensive, strategic health plan for the state. The vision is to build a healthy New Mexico. Secretary Montoya and her staff have traveled the state over the last year and a half, asking people what it is they want to see in health care. “We’ve shared with them some ideas we have and asked them to respond with their thoughts. This January we got legislation passed that said we would develop a comprehensive, strategic plan that will be in place for two years. It’s to be re-done every two years because the environment is changing, which means the plan needs to be fluid and flexible.”

“We’re looking at health status indicators. The overarching concern is chronic disease, especially when we look at the disparities affecting our minority communities. For the first year, we’re taking on four health status indicators. One is obesity. Another is immunizations, because when we started we were ranked 50th in the country in our immunization rate. We’ve now moved up to 43rd. We’re also focusing on two youth health status indicators. They are teen pregnancy and youth suicide, because we have some of the highest rates in the country for both of those.”

“We’re just now finishing up our planning. We’ve done tribal consultations and regional meetings, gotten input from people, and are now in the final stage of writing and putting together our plan, which will be given to the governor July 1. As I mentioned, health status indicators will be the first focus for this year. We’re going to have to get our payers, our delivery system, and our different levels of government to collaborate and coordinate. There’s going to be a big emphasis on personal responsibility, on families and on communities.”

“But then we’re going to look at systems of delivery. We’re going to go back to the continuum of care and put more emphasis on early intervention and prevention. We’re going to get a good roadmap of where we are with our delivery system in this state and what does that mean for access. We talk about it, but we haven’t pulled together our information and our data. We’re going to take a look at the financing. Where are the dollars going in our state, both public and private, in the different levels of delivery? And then that will become another level of discussion. Where do we go from there? How do those dollars get redistributed? It’s not necessarily going to be a lot of new money. We’re always looking for that, but it’s about how to do more with what we have. So we’re looking at systems of delivery, the financing and, last but not least, workforce.”

“For a small state that is often forgotten, we have really come together,” said Secretary Montoya. “We do think we can be an incubator for innovation. We’re really looking to see all the different pieces we can put together to improve health care for New Mexicans, and by doing that, build a healthier state.”

“He Who Has Health Has Hope; He Who Has Hope Has Everything!”

Presentation by John Lumpkin, MD MPH, Robert Wood Johnson Foundation

When looking at the value proposition of health, a fundamental question is: what is health? Frequently we operate in a disease model, where we define “health” as not having disease. But the World Health Organization (WHO) has a much broader model. They define health as a state of complete physical, mental and social well-being, not merely the absence of disease or infirmity. We can modify their definition to address the issue of disability by saying that it’s a state of well-being and the capability to function in the face of changing circumstances.

If we take that model of health as the starting point for talking about the values for health, it really creates a different discussion. It’s not enough to just treat disease. You don’t want to just do the amputations in response to cardiovascular disease and diabetes. Instead, you want to have good control of disease so you can prevent amputation in the first place. So the WHO and many organizations overseas talk about curative services and preventive services. In the U.S. we tend to divide health care and public health. Frequently we talk about health and health care, although health is much broader and actually subsumes health care.

The question is, does health and health care work? That’s a question we need to consider in deciding whether we’re going to have a value-based proposition. Things were very different 100 years ago. In 1960, we only spent 4% to 5% of Gross Domestic Product (GDP) on health care. Prior to 1960, we spent far more than 3% of health care expenditures on public health, and about 80% of the advances in longevity in the first half of the last century were from public

health improvements. By the year 2000, we’re spending close to 15% of GDP, and a much smaller percentage of the health care dollar – less than 3% – is going to public health. One conclusion you can draw is that health and health care actually does work. The result has been almost thirty additional years in life expectancy, and the value of that is huge.

The economic impact of health care spending

One would have to say there is certainly a relationship between health and economic development. First, there are economic costs for poor health. There is clear evidence that even second-hand smoking has a dramatic impact on the workplace because it increases costs and decreases productivity. There are also clear costs for the nation, both in terms of health care expenditures and productivity, from poor health.

There is also an impact from expending money on health. The WHO has looked at this for developing countries. For every 10 percent increase in life expectancy, they have identified a .3% to .4% rise in economic development. On the opposite side, Families USA looked at what happens in this country if we reduce spending on health care. For every million-dollar decrease in Medicaid, there is a \$3 million loss to the state. So we can see there’s a relationship between what happens in the health care sector and what happens in the economic and business sectors of a community.

The problem is trying to determine the character of that relationship. Many of us think of it as a

straight-line relationship, meaning that if you spend more money on health care you're going to get more economic growth. But is it really a straight line? Anyone who's had physiology remembers Starling's curve – as you increase the tension in the left ventricle, you increase cardiac output. If you put in more fluids, you increase the output. But congestive heart failure occurs when you go over the curve. You get past the point of efficiency and the body starts to decompensate, the body tries to correct.

The question is: where are we on that curve with health care expenditures? I think we have to look at health care expenditures differently because when you look at an auto plant, the auto plant makes the cars and sells them elsewhere. But health care is very internally directed. At some point we reach the end of that curve, and then expenditures begin to have a dramatic impact, and it is certainly having a dramatic impact on the competitiveness of U.S. businesses abroad. When you look at how much of the cost of an automobile is associated with health care, it is having a dramatic impact on our competitiveness abroad.

So what is that relationship, and how do we determine what the impact is of health on economic development?

The complexity of health and health care

Both health and health care are very complex – you may try something, but you don't know exactly what is going to happen as a result. For example, look at the reporting of quality statistics. The conceptual model of HMOs was that if you have a system where consumers can purchase based on quality and knowledge of performance of the health care system, the market would drive change and move it towards quality. But

consumers never did that, for a whole host of reasons. They didn't have the quality information and so forth. But even where quality is reported, there isn't a direct relationship between purchasing decisions by consumers and purchasers and the quality data. Nevertheless, quality did change in the health care system because the providers believed the purchasers and the consumers would be making decisions based on the quality data. Providers looked at their performance levels and they changed the way they were practicing.

In a complex system like health care, you have to take all the factors into account. I point that out because there aren't any really simple solutions. In health we have many complicated systems. This is a chart that was in the Institute of Medicine's (IoM) 2002 report on guaranteeing the health of the public in the 21st century. What we begin to see is that the health of an individual is more related to factors that aren't just a part of health care. There is individual behavior, social and family living networks, living and working conditions, and broad social, economic and cultural factors. All of them have a tremendous impact on people's health status.

An interesting example is the Cherokee Indians in North Carolina. They opened a casino and began to allocate the profits so that anyone who is at least one-eighth Cherokee in North Carolina gets a stipend of \$6,000 a year. Since then, the health status of the children of those American Indians has shown dramatic improvement. It didn't have anything to do with increased access to health care. It was the other factors in the community that had an impact on the children's health.

Recommendations

Good health care outcomes are complex. That's

why the Chronic Disease Model developed by Ed Wagner is so important. It says that it's not just clinical information systems that are going to improve health care, and it's not just decision support or delivery system design. It's also the decisions the patient makes in managing their own care. Whether or not the diabetic exercises and how they manage their diet are just as important as what occurs in the health care system. Self-management becomes an important component, but also what goes on in the community.

For example, write a prescription to exercise for a patient who lives in the inner city and they'll look at like you're crazy. "Okay, where do I exercise?" they'll ask you. "People in the community will think I'm crazy." So some of the things we're doing at the Robert Wood Johnson Foundation, with respect to diabetes, are looking at actually funding some community-based coalitions to improve the environment for diabetics who try to enhance their control.

A key component in good health care is the interaction between the prepared, proactive practice team and the informed, activated patient. It was mentioned earlier today that a key component to moving forward a health care agenda is the development of the personal health record. And it's not just the record that someone carries around in their pocket. But in order to have an informed, activated patient, having an electronic health record provides an important decision-support tool.

So not only are we looking at quality improvement from the supply side – in other words, do we have the tools to improve quality in health care facilities? After years of doing this, I would have to say we have enough tools. There is a plethora of measurements. Part of the problem

is that the cost of the acquisition of the data is so high. But if we move into an era of electronic medical records, where we see increased adoption, the cost of acquisition of this data is going to go down dramatically.

The difficulty lies on the demand side. We know how to do quality improvement, but by and large we see quality improvement on one floor, in one unit, in one hospital, in one aspect of the community. We need to change the equation, because the penalty goes to the early adopters. As others have pointed out, it doesn't do any good to buy a fax machine if no one else has a fax machine.

Quality improvement does not have a return on investment when you can't use it as a competitive edge. So we need to move into an environment where providers can actually compete on quality because there's a demand. I believe the key leverage point in the next five years will be on the demand side, and the key motivators are going to be patients, who are informed and activated, and purchasers of care.

Incremental approaches can make a difference, but we have to recognize that we are modifying a system. There can be incremental changes in the system, but there cannot be incremental changes in components of the system. We need to be mindful of the impact and how it's going to affect the system as a whole. As the IoM said, the point is not to change the providers; it's to recognize that we have to change the system. We face a challenge to do that.

A vision for the future

President Franklin Delano Roosevelt said in 1932, "Success or failure of any government, in the final analysis, must be measured by the well-being of

its citizens. Nothing can be more important to the state than its public health. The state's paramount concern should be the health of its people."

What is the value proposition for health and health care? I think we have to look at the term "value" and look at it in two contexts. But as Father Place reminded us, we also have values as a society. There is a value proposition that is both financial as well as moral.

The single most important thing we can do to improve health status, quality of health, and even control costs is to cover the uninsured. The health care expenditures of the uninsured are significantly less, they live sicker and they die younger. Eighty percent of people who are uninsured live in a household where at least one member is working for a living. We all bear the cost of not covering the uninsured because the unreimbursed costs are spread among all of us.

So as we look at a value-based decision effort, we look at the interrelationship between health, health care and economic health. This is a society where there is an interaction, and the interactions all exist within a community. There are multiple factors. It's not just a matter of whether health care leads to economic health. It is an interactive and iterative cycle.

I would argue that the vision we should adopt for health and health care is the vision that was stated by Father Place. He said the vision should be healthy people living in healthy communities. It's the combination of the two that leads toward healthy communities.

As Winston Churchill once said, "You can always count on Americans to do the right thing, but usually only after they've tried everything else." After 30 years of doing this, I think we've pretty

much tried everything else. It's time to do the right thing. We shouldn't be disheartened because we've tried things and they haven't worked. We have to realize that maybe there were some good ideas that were failures just because they came at the wrong time.

To quote John Chancellor, "The next century will be dominated by economic rivalry between trading blocs in Europe, North America, the Pacific Rim and the Caribbean Basin. In this new order, winners and losers will be determined by the quality of a country's infrastructure, the stability of its economy, and the health and education of its workers."

If we, as a nation, are going to continue to be able to compete in an increasingly consolidated world market, the health of workers is our responsibility, as is the health and the future of our nation.

Wrap-Up Discussion

Creating change

A participant observed that health care change requires both social change and cultural change. “That’s a pretty tall order of change,” he said. “But the good news is there is a whole body of research about how to make change take place. Change takes place in steps and stages and phases. It’s a process, and we have to approach it that way.”

He added that “incrementalism can be proactive, as long as we’re headed toward a specific goal and objective such as a comprehensive health plan. Let’s learn something from the early 1990s about how not to do comprehensive reform.”

“A well-defined problem is halfway toward the solution,” said another participant. “I think we have a pretty clear path on what we need to do. Whether we have the political will and effort to make those changes, I don’t know.”

Another participant observed that “the clock is ticking” to move forward on health care reform. “There is a tremendous sense of urgency in coming up with the solution, but we need to start from the framework of a vision. We need to think along the lines of radical change that gets delivered incrementally, but the incremental part is an implementation tactic. It’s not acceptable, from my perspective, that the solution be an incremental one. But the mission needs to have flexibility embedded in it.”

A participant observed that “we need to remember what we’ve done before, but we also

need to remember what didn’t work. We did Healthy People 2000, we did state health plans. It failed because we segmented health into women’s health and dental health, etc., and we did it community by community. But today’s environment allows us to do it more globally. So let’s have a reconsideration of a national health planning movement.”

A small, well-organized group can make a difference,” said another participant. “Members of Congress are worried about their own job security, and if you want them to make a change you need to get your constituents to tell them to make a change. You could try a national education campaign targeting the voters who will influence the federal government. Bring in marketing people and communications people to get the message out.”

Some specific suggestions

A representative of group practice physicians highlighted two themes that emerged during the meeting. “One is that we need to incentivize the right kind of behavior. Second, we need to find a way to really pay for information technology.” Two action items he recommended for the Foundation are (1) convene a group of thought leaders who can really take a look at creating new reimbursement strategies, and (2) think about designing a public-private sector initiative to fund IT investment by providing low-interest, long-term loans similar to student loans.

A participant from the provider community observed that there are tremendous inefficiencies

in Medicare and Medicaid regulations, which add to the cost of health care. “If Medicare could get with the insurance trade associations and come to some kind of agreement on standardizing forms and ways of retrieving data, it could provide a beginning template for what is necessary for IT into the future.” A second recommendation is to have regional demonstrations using hospice type providers in chronic disease management and see if costs decrease.”

A representative from the employer community noted that the Internet is an excellent tool for employers to provide health and wellness information to their employees. “I applaud HHS for what they’re doing in the standards for electronic medical records,” he said. “And when an industry won’t get together and establish its own standards, government should step in and set rational standards.”

A pharmacist representative observed: “I don’t think the people paying the bills are going to let health care go to 20% of GDP without us getting more efficient. We need to make full use of all providers. Pharmacy is greatly underutilized relative to the knowledge base, and we don’t do very well in deploying personnel in health care, whether it’s nurses, pharmacy, etc. This group could serve as a good forum for identifying best practices in the deployment of personnel. And clearly we have to figure out a more rational basis to get together and talk about scopes of practice.”

Another participant said that “empowering consumers to distinguish good information from bad is one of our biggest challenges as health care providers.”

Summary of key themes

Ian Morrison summarized the discussion throughout the meeting by listing 8 key themes on which there’s a consensus to look further:

1. The broad catchment of performance measurement. We need to capture the value side of the health care equation, in terms of metrics. This group could promote that.
2. Public reporting and transparency about what those measures are.
3. Reimbursement and payment policy. There is no right answer in this. But you’ve got to follow the money. You have to engage the consumer, but you also have to engage the provider. We need to reinvent the reimbursement system to create incentives to do the right thing.
4. Information infrastructure and an information management perspective that we lack now. May need to make investments in the short run to get the returns in the long run.
5. Promote a value-oriented culture, and apply that at all levels – society, the medical and health care system, individual organizations, and individual patients. Social marketing to get the reality out there.
6. Engage consumers, family and community in this. The patient is not just the user, but the family and community in which they live.
7. Care that is team-based and care management-focused. We desperately need innovation in that area. If we don’t fix that, we’re toast.

8. The notion of flexibility and innovation. Try it, test it, fix it. In the current environment, there's willingness at all levels to experiment. And we don't ignore the results. We have to be honest with the experiments and use them honestly to make policy.

Recommendations for Next Steps

This summary is a distillation of potential actionable next steps for the Foundation and its allies. It is not anticipated that all of these proposals will be undertaken. Rather, we will prioritize activities based on feedback received from the Foundation's Advisory Board.

Information, Infrastructure and Incentives

Information

Information about the Value of Products and Services:

- ★ **Challenge:** Payers and consumers currently lack information about the relative effectiveness of new pharmaceuticals and technologies, which makes it difficult to judge their value.

FAHCL proposal: To convene a meeting of public and private stakeholders, including FDA officials, to discuss whether the FDA or another agency should replace the former Office of Technology Assessment with a new entity to evaluate the comparative effectiveness of new products (possibly modeled on the United Kingdom's National

Institute for Clinical Effectiveness, or NICE).

- ★ **Challenge:** Payers, providers and consumers lack outcomes that would help them evaluate common medical practices and make informed decisions. There is a need for more federal support for outcomes research and a systematic policy for evaluating medical practice. More engagement by Academic Medical Centers in this type of research would be useful.

FAHCL proposal: To convene a discussion among interested stakeholders and policymakers about developing a strategy to increase support for outcomes research from the federal government and among the medical community, and to consider designing a programmatic response along the lines of the former Patient Outcomes Research Team (PORT) projects, which were under the auspices of the Agency for Health Care Policy and Research (AHCPR).

- ★ **Challenge:** Currently, there is not a venue that can provide a swift and balanced resolution to the many difficult social questions raised by rapid advances in medical science, technology and genomics.

FAHCL proposal: To work with appropriate parties in the public and private sectors to define and advance the idea of a "science court" that would be responsible for weighing the merits of various medical and administrative technologies and their applications. As a relatively apolitical venue, a "science court" could be an effective way to strike a balance between the public interest and the interests of the industry.

Information about Prevention and Health Promotion:

- ★ **Challenge:** An economic case for increasing the emphasis on prevention and health promotion in order to reduce chronic disease has not yet been made, either to policymakers or the public.

FAHCL proposal: To work with economists and others to develop and publish “best thinking” and “economic modeling” to further this case. We should evaluate the work of Oxford Vision 2020 where it is relevant.

- ★ **Challenge:** There is potential for the federal government to work with private entities on a social marketing campaign on prevention education, but this potential has not yet been fully explored.

FAHCL proposal: To work with the National Quality Forum, the Centers for Disease Control & Prevention and marketing and communications experts to develop a campaign. We should explore ways to build on private sector interests modeling profitable business opportunities.

Infrastructure

Information Technology:

- ★ **Challenge:** A major barrier to increased IT infrastructure is the need for investment. Many providers, particularly small ones, don’t have the resources to invest in IT.

FAHCL proposal: To convene industry leaders and others to outline recommendations for financing, particularly for small providers,

through loan programs, tax credits, private/public/community co-ops, etc.

- ★ **Challenge:** The technology now exists to successfully implement Community Health Information Networks (CHIN), which have the ability to spread access to electronic medical records among a variety of institutions.

FAHCL proposal: To research models for implementing CHINs and explore the potential for building on common elements in current efforts by trade associations such as AMGA and professional societies.

Delivery Models:

- ★ **Challenge:** Rationalizing treatment delivery will help us get the most out of our health care delivery system.

FAHCL proposal: To identify and report on best practice models with regard to deployment of personnel, community outreach, disease management, “virtual networks,” etc., looking at both the public and private sectors.

FAHCL proposal: To investigate and report on the VA health system’s experience in providing better quality health care than fee-for-service Medicare, and at less cost, and to encourage policymakers to examine that experience and its possible implications through demonstrations.

FAHCL proposal: To research the applicable elements of the hospice model and develop recommendations for regional demonstrations that would move the model “up-stream” for chronic care management.

Community Planning:

- ★ **Challenge:** Some good ideas from the past that were not implemented or were abandoned may have just come at the wrong time and should be reconsidered.

FAHCL proposal: To research the successes and failures of the community health planning movement and explore its potential application to today's environment.

Incentives

- ★ **Challenge:** Currently, financial and other incentives for providers, plans and patients are not well aligned to encourage use of evidence-based medicine. Pilot projects are underway to reduce unwarranted practice variation and to increase pay for performance, but much more can be done.

FAHCL proposal: To convene a group of stakeholders and economists to explore and report on possible reimbursement models that better align incentives for evidence-based medicine.

Appendix A: White Paper

Value in Health and Health Care

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Health is a valuable possession. In fact, it is both a possession and a resource. We value health as a possession for its own sake. We use health as a resource to produce and obtain other things that we deem to be valuable. Health is also a multidimensional entity. At a minimum it involves both quality and length of life.

Placing a value on health is the first step in determining the return on investment (ROI) from resources devoted to improving health. However, “valuing health is among the most difficult of all topics to discuss in polite company. It involves ethical, legal, religious, political, and economic values. There is no way to do it that does not give us at least some discomfort” (Cutler, 2004, p.11).

Accurately placing a value on health requires us to consider its possession and its production aspects, its quality and its length aspects. To ignore any one of these aspects is to have an impoverished view of health and to calculate a falsely low value for health.

Health is produced by many factors. Genetics, family traditions and practices, personal habits, environmental and cultural factors all influence health. Health-related research, health education, and medical care also contribute to health. An individual’s health status results from the interaction of all of these factors – a feature that complicates any analysis of health.

Unfortunately, attempting to be all-inclusive in our definition of health quickly makes the problem of valuing health an intractable problem. We can, however, establish a lower bound for the value of health by determining the value of individual components and then assuming that the value or impact of other components is not negative. For example, if we determine that a health care procedure increases longevity, the ROI from investing resources in this procedure can be viewed as a lower bound since this same investment could simultaneously produce a positive gain in the quality of life, a positive gain in worker productivity, etc.

The focus for this manuscript is value and choices. I assume the following: 1) the value of health is positive; 2) we value health significantly greater than other things we also desire; 3) we are willing to trade a certain amount of our resources to obtain more health; 4) the quantity of resources we can devote to health and other things is limited forcing us to make choices; 5) we want to get the greatest possible return from the use of our limited resources. These are standard economic assumptions.

To get the greatest possible return from the use of our limited resources we must make decisions about resources devoted to health to assure that we: 1) extract the most health possible from resources devoted to health, and 2) appropriately

balance the amount of resources devoted to health against the amount of resources devoted to other things. In return on investment verbiage, we seek to: 1) increase the ROI from resources devoted to the production of health; and, 2) appropriately balance the ROI from an investment in health against the alternative potential investments of those resources. The return on investment perspective has the effect of refocusing the discussion from costs and expenditures per se, to the question of value. Cutler (2004, p. 123) expressed it well: “Cost control is not a goal in itself. Increasing the value of the system is.”

Given the complexity of the many interacting components that influence health, I will narrow the focus of this manuscript to the contributions of health care. Thus, the question of value and choices becomes the question of value and related to health care. The focus on health care is appropriate because of the large relative percentage of our resources that are devoted to health care.

The economic framework

The seminal article examining the economics of health care was written by Kenneth Arrow (1963). He examined health care within the framework of general equilibrium theory and Pareto optimality to illuminate several well-known, if poorly understood, reasons that resources devoted to health care may not be employed efficiently (i.e. they may not be employed in a manner that maximizes the ROI). Arrow’s analysis is not the focus of this manuscript, but it is a classic and remains worthy of study. I will, however, use the framework of economic develop a framework for thinking about how to increase the ROI from resources devoted to health care. This framework

raises many unanswered questions and highlights that we have much work yet to do.

The concept of economic efficiency

The basic economic problem is to produce and distribute the goods and services we want given the prevailing resource and technology constraints. It is a “constrained optimization” problem. The economist calls an optimal solution to this problem efficient. Three types of efficiency are described (Hurley, 2000, p. 60). Technical efficiency is achieved when production is organized to minimize the inputs required to produce a given output. (In a technical sense, an efficient furnace is one that produces the most heat possible for a given quantity of fuel). Cost-effectiveness efficiency is achieved when production is organized to minimize the cost of producing a given output. (In a cost-effectiveness sense, an efficient furnace is one that is designed to be technically efficient and also designed to burn the least expensive fuel available). Allocative efficiency is achieved when individual outputs are produced in a technically and cost-effectively efficient manner at an optimal level and are distributed in line with the value that consumers place on them. Note that allocative efficiency addresses what is produced and who receives the goods and services produced. (Following the furnace example, a home mechanical system is efficient in an allocative sense if it is both technically and cost-effectively efficient and if it produces and delivers the desired air temperature to the various rooms in the house as desired by the individual occupants of the rooms).

As indicated in the furnace examples above, the three concepts of efficiency are additive. They also generate different degrees of complexity. The concept of allocative efficiency is particularly

complex since there are alternative ways to define optimal and alternative ways to assess value. As noted in the discussion of Arrow's classical paper, the standard welfare economics approach assumes the Paretian definition of optimal (see footnote 2). Other definitions of optimal can be used which may yield different conclusions.

The methods for determining value are most important for our purposes. Broadly stated, there is a "welfarist" approach to determining value and an "extra-welfarist" approach to determining value. The welfarist approach determines value using utility, while the extra-welfarist approach determines value using some other measure (usually a health measure).

Maximizing the value of investment in health care

With this basic background in economic efficiency, I am prepared to suggest a framework for maximizing the return on investment from resources devoted to health care and the attendant questions that must be addressed. The framework has four major imperatives: the first imperative addresses technical and cost-effectiveness efficiencies; the last three imperatives address allocative efficiency. These imperatives are: 1) Stop trading valuable resources for things that do not have positive value; 2) Stop trading valuable resources for things that cost more than they are worth; 3) Appropriately balance the amount of resources devoted to health care against alternative uses for those resources; and 4) Determine what is equitable.

1. Stop trading valuable resources for things that do not have positive value.

This should be a no-brainer. If we want to obtain a maximal return on investment, it is axiomatic

that we do not want to throw money away. In health care some of the things that consume resources and yet have no value are:

1. Paying money for health care that is not delivered (sometimes called fraud). I do not take the position that fraud is rampant and that we could balance the federal budget if we simply eliminated health care fraud. But, there is certainly some fraud in the system and it is economic dead weight.
2. Paying money for medical care that has been demonstrated to have no value or that has been demonstrated to be harmful (negative value). Although some medical procedures and practices have not been shown to be effective, we know that some procedures and practices are useless or even counterproductive under certain circumstances.
3. Paying money for medical care known to be valuable under some circumstances but that is administered under circumstances that significantly diminish the value of the care (for example, a submitting to a valuable surgical procedure that you don't need). Jack Wennberg and colleagues at Dartmouth have made enormous contributions to our understanding of practice variations – i.e. variations in the application of medical procedures and practices. When otherwise beneficial practices and procedures are misused, costs are incurred, but benefits are diminished and, in the extreme case, they are zero or negative.
4. Paying for medical care that is delivered in a more expensive manner than necessary (i.e., non-cost-effective care).
5. Paying multiple times for defective medical

care (paying for it the first time when it is delivered and then paying again to fix the defect).

To sum up this imperative in one phrase: we should get what we pay for, need what we get, and what we get should be delivered in a cost-effective, error free manner. This is the definition of quality medical care.

To a great extent this first imperative focuses on technical issues. If we can address the technical issues surrounding space flight we can address these technical issues. We are not there yet – but we can get there if we want to. We have much work to do!

2. Stop trading valuable resources for things that cost more than they are worth.

Addressing the second imperative requires us to learn how to determine the real costs associated with various medical interventions (a much more difficult exercise than might be supposed). It also requires us to do some soul searching to discover our own preferences and values – hard work in the video game age. In order to compare costs to the value of outcomes, one not only needs determine the cost, but one must also explicitly determine the worth – the value – of the outcomes of a medical intervention (or non-intervention). This means assigning a value to different states of health and ill-health, and, ultimately placing a value on human life. To make this value assignment we are forced to take a welfarist or an extra-welfarist view. Do we allow individuals to tell us the value of health and life (a welfarist viewpoint) or do we look to some other external standard to impute the value of health and life (the extra-welfarist viewpoint)?

The viewpoint we take on the value question is

important. The welfarist cares about individual preferences for things such as an MRI scan to rule out intracranial disease when we have a headache. The extra-welfarist would discount our preferences for the MRI and ask instead, what impact the MRI will have on the course of the disease. These are not necessarily compatible viewpoints: the “value” of the MRI used to compare against the cost of the MRI will be different depending upon the perspective taken. Many health services researchers adopt the extra-welfarist position that health outcomes matter most, but that is a value judgment and may not square with what patients actually want. Patients don’t demand health, they demand health care. Patients (and physicians) do not always make the appropriate connections between health care and health, and hence the two viewpoints often diverge.

The value question is further compounded by the fact that the collective “we” is a very heterogeneous group. Whose health and life are we to consider? The elderly value health and life differently than the young. The rich value health and life differently than the poor. How do we aggregate these different values to form the “value” we will use in determining if cost exceeds the benefit? Are we willing to accept a different value for different groups of people (producing a different cost-to-benefit ratio for the old and the young for example)?

There is also a system or operations issue tied up in this imperative. Valuable health care in one circumstance may not be valuable in another circumstance. Medical procedures and practices can be misused if they are not provided at the right time or in the right way to the right patients. Thus, determining that a practice or procedure produces benefits in excess of its resource costs is not enough if there is a

propensity to misuse the practice or procedure.

Another issue that arises when determining the value of medical interventions (and non-interventions) is the issue of externalities. Externalities exist when the value of the benefit accrues to individuals external to the intervention. Externalities can be both positive and negative. The classic example of positive externality is the medical intervention of immunization. An immunized individual feels the pain, but others who are in contact with that individual stand to gain because that individual is no longer a repository of infectious disease. How should we account for externalities?

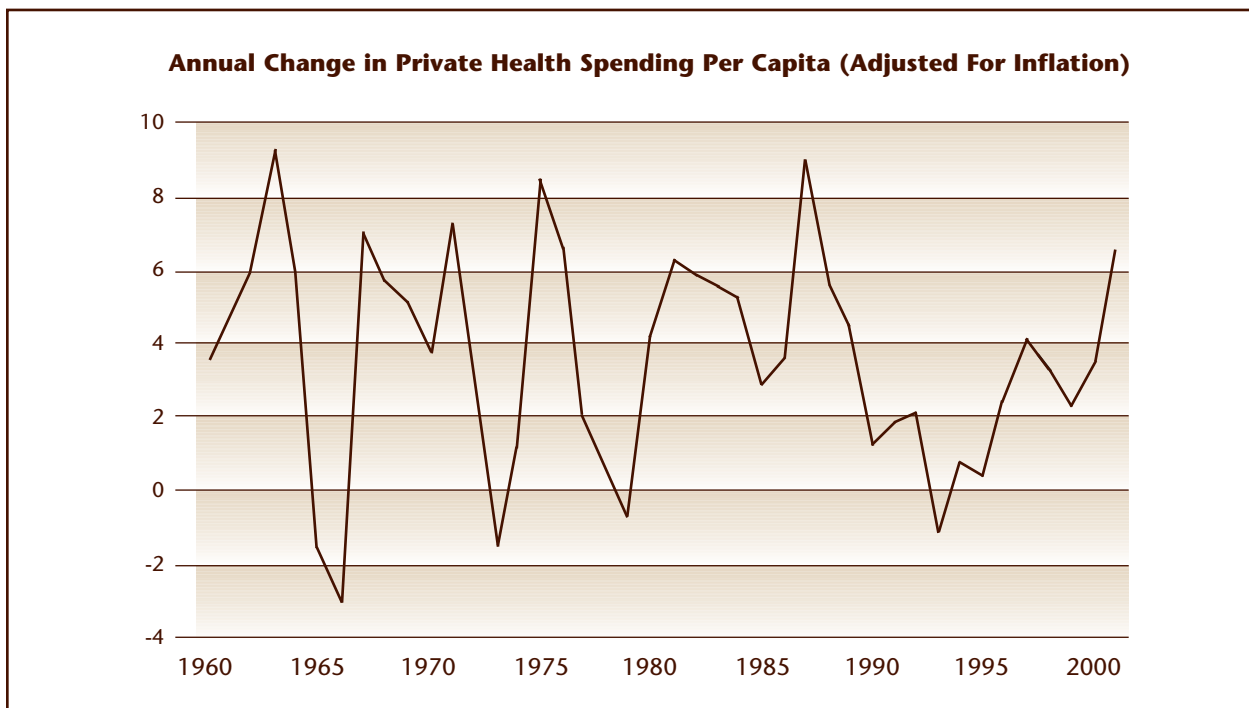
To completely evaluate a medical procedure or practice and pronounce it as having a benefit that exceeds its cost is a very difficult exercise. Useful techniques such as cost-effectiveness analysis exist (Gold, Siegel, Russell, & Weinstein, 1996; Drummond, O'Brien, Stoddart, & Torrence, 1997;

Drummond & McGuire, 2001). Cost-effectiveness analyses compare the relative value of two different treatment options (or one treatment compared to no treatment). However, these techniques have not yet been applied to most medical interventions (indeed most medical interventions have not even been adequately studied to determine their clinical effectiveness under various circumstances). Thus, we are not now in a position to the cost and benefits of many medical practices and procedures. We have much work to do!

3. Appropriately balance the amount of resources devoted to health care against alternative uses for those resources.

The percentage of Gross Domestic Product (GDP) devoted to health care continues to grow. Health care spending in 2002 was 14.9 percent of GDP (Levit, Smith, Cowan, Sensenig, & Catlin, 2004).

Figure 1



Although yearly, inflation adjusted, per-capita private spending has been erratic over the past four decades, such expenditures have grown at an average real rate of about 3.5 percent (see figure 1).

The marginal propensity to spend on health care (the percent of new GDP growth devoted to health care) has varied between 15 percent and 22 percent over the past two decades (Pauly, 2003, p. W3-24). This means that unless our preferences for health care change in the future, the percent of GDP devoted to health care will approach 20 percent over time. Resources devoted to health care are resources that cannot be devoted to other things we value. Is 20 percent of GDP too great a percentage? How much is too much? Who should decide this question? Is it best to let patients decide how much of the nations resources to devote to health care, or should a figure be imposed upon them by an external force (say the government)?

Recent studies have made the point that we will be able to afford the current growth rate of health care expenditures for many years into the future (Chernew, Hirth, & Cutler, 2003). "Fundamentally the problem of medical care costs is not one of affordability. We can afford to spend more on health care if we want to. The real problem is value" (Cutler, 2004, p. 75).

The collective "we" can afford to devote an increasing amount of resources to health care if "we" want to, but if our goal is to maximize the ROI from resources invested in health care, the real question is: are we getting as much for our spending as possible? (NOTE: Although "we" can afford increasing health care expenditures, this expenditure trajectory forces more of our neighbors to become uninsured!)

To accurately balance our preference for health care against our preferences everything else, it is essential that we have an accurate way to measure the true costs and benefits of health care. However, the techniques used to measure the price and the quality of health care are notoriously inaccurate. "[W]e are dramatically mismeasuring, and almost certainly underestimating, the contribution of improvements in health to economic welfare" (Nordhouse, 2003, pp. 10-11).

Measurement problems on the expenditure side of the equation are well known. The value of U.S. health care expenditures is a function of both quantity and price. However, price determinations have proven problematic. For example, it has been very difficult to obtain actual transaction prices for most health care encounters. Consequently, list prices for deeply discounted medical services have been used in calculating the medical care price index (thus overstating the true price).

Medical price indices also assume that the quality of the relevant goods and services is static. However, many studies suggest that a significant amount of unmeasured increase in the quality of health care is hidden in the growth of the medical consumer price index (Newhouse, 1992; Cutler, McClellan, & Newhouse, 1998; Triplett, 1999). The failure to account for quality increases has the effect of artificially inflating the price of medical care.

Adjusting the national health accounts to include the value of the improvements in health that result from health care would make a significant difference. It has been estimated that the increase in life expectancy alone added approximately \$2.6 trillion per year (in constant 1996 dollars) to national wealth between 1970 and 1998 (Murphy and Topel, 2003, p. 42). Most of this increase in life expectancy was the result of medical care, but the

value of this care was not included in the reported average real GDP of \$5.5 trillion during that same period. It is remarkable to think that GDP during the last three decades of the twentieth century would have increased by an average of about 50% each year simply by including the value of increased life expectancy! The value of increased life expectancy during this time period is a lower bound for the value of health care since some of the value of improved health for the living is still excluded (I would expect that the value of productivity gains from improved health are captured by the GDP, however the possession value of health is ignored).

Nordhouse took a welfarist approach to the value of health care and asked study subjects to compare the value they personally derive from health care advances to the value derived from other consumer advances. His work demonstrated that over the last half century, health care expenditures have contributed as much to overall economic welfare as the rest of all other consumption expenditures combined (Nordhouse, 2003, p. 37). From this perspective, historical spending on health care has yielded results that exceed in value the amount we have spent by a good margin.

We cannot appropriately balance resources devoted to health care against resources devoted to other things we desire if we do not have accurate information about the true costs and benefits of health care. We have considerable work to do!

4. Determine what is equitable.

The fourth imperative is the question of equity. Equity is an issue that is significantly opinion driven and one that is likely to produce considerable disagreement.

The discussion so far has concentrated on efficiency. Maximizing return on investment from resources devoted to medical care requires optimal efficiency. The term “efficiency” in economics usually refers to Pareto efficiency (see footnote 2). A Pareto efficient solution to the economic problem is usually not a single point, but a mathematical frontier defining an infinite number of points. However, many so-called efficient solutions would tax the conscience of any moral individual (depending, of course, upon that individual’s moral precepts). Pareto efficiency is just as compatible with starvation in the presence of gluttony as it is with a more homogeneous distribution of resources. A superb discussion of this issue can be found in Reinhardt (2003).

We are forced to accept that the best solution to the economic problem in an ethical sense may be a suboptimal solution in an efficiency sense. Simply pursuing the maximum return on investment from resources devoted to health care may bring us into conflict with our cherished ethical ideals. We are faced, then, with the question of how much economic efficiency we are willing to sacrifice so that we can sleep at night.

Deciding that we value equity in health care is just the beginning. We must also decide what we mean by the term equity. Do we mean horizontal equity (those with equal status are treated equally)? Do we mean vertical equity (those with different status are treated differently in proportion to the status difference)? What is it that we want to equalize in our pursuit of equity?

The three most common focal variables for equity are: 1) allocation of resources according to the need for health care; 2) allocation of resources to assure equality of access to health care; and, 3) allocation of resources to equalize the distribution of health (Hurley, 2000, p. 89). Unfortunately,

these three notions of equity are not compatible: each leads to a different distribution of health care resources (Culyer, 1993). We must choose to focus our equity concerns either on need, on access, or on health per se – we can't logically focus on all three. Even after we choose a focus, we still have an analytical problem since defining terms like need, access, ability to pay, and health can be difficult and non-uniform.

From a pragmatic viewpoint, the central questions of equity are: who gets what first, who gets what second, who gets what never, and who pays the bill. The Marxist doctrine of "to each according to his/her need; from each according to his/her ability to pay" answers these questions in a very egalitarian manner, but are we prepared to be egalitarian? Is there some other ethical theory that we are willing to accept as a guide for making ethical decisions?

Discussions of equity and social justice suffer as much from different definitions as from different opinions. We are a long way from reaching consensus on this issue. We have not even defined terms and framed the debate. We have much work to do!

Conclusion

Demonstrating that the value of a return on investment in health care is large is different than demonstrating that we are getting everything for our money that we could get. It is also different than demonstrating that health care is where we want to spend our money given all of our options. "While recent economic studies have shown that in the aggregate, 'medical spending as a whole is worth the increased cost of care,' the 'whole' may hide many individual medical interventions of dubious clinical and economic merit" (Reinhardt, Hussey, & Anderson, 2004, p.

20). This sentiment is echoed by Cutler (2004, p. 21), "We spend a lot on medicine, but we get more in return. That is not to say that everything is good. There is a good deal of waste. But a central feature of the medical system is the increasing value it provides over time."

To maximize the ROI from resources devoted to health care we must deal with the waste. We must deal with the individual medical interventions of dubious clinical and economic merit. To maximize the value of investing resources in the health care system there are three imperatives that we must follow: 1) Stop trading valuable resources for things that do not have positive value; 2) Stop trading valuable resources for things that cost more than they are worth; 3) Balance the amount of resources devoted to health care against alternative uses for those resources. To maintain our ethical integrity we must also follow the fourth imperative: 4) Determine what is equitable.

Given that we will continue to spend an increasing percentage of our nation's resources on health care, it is essential that we take seriously the task of increasing the value of the health care system. We must take the effort to address these issues. We have much work to do!

Bibliography

1. Arrow, K. J. (1963). Uncertainty and the welfare economics of medical care. *American Economic Review*, 53(3), 941-973.
2. Chernew, M. E., Hirth, R. A., & Cutler, D. M. (2003). Increased spending on health care: how much can the United States afford? *Health Affairs*, 22(4), 15-25.
3. Culyer, A. J. (1993). Equity and equality in health and health care. *Journal of Health Economics*, 12, 431-457.
4. Cutler, D. M. (2004). *Your money or your life: strong medicine for America's health care system*. Oxford: Oxford University Press.
5. Cutler, D.M., McClellam, M., & Newhouse, J.P. (1998). Are medical prices declining? Evidence from heart attack treatments. *Quarterly Journal of Economics*, 113(4), 991-1024.
6. Drummond, M., & McGuire, A. (Eds.). (2001). *Economic evaluation in health care*. Oxford: Oxford University Press.
7. Drummond, M. F., O'Brien, B., Stoddart, G. L., & Torrance, G. W. (Eds.). (1997). *Methods for the economic evaluation of health care programmes* (2nd ed.). Oxford: Oxford University Press.
8. Gold, M. R., Siegel, J. E., Russell, L. B., & Weinstein, M. C. (Eds.). (1996). *Cost-effectiveness in health and medicine*. Oxford: Oxford University Press.
9. Hurley, J. (2000). An overview of the normative economics of the health sector. In *Handbook of health economics*, vol. 1A, A. J. Culyer & J. P. Newhouse (Eds.). New York: Elsevier.
10. Levit, K., Smith, C., Cowan, C., Sensenig, A., & Catlin, A. (2004). Health spending rebound continues in 2002. *Health Affairs*, 23(1), 147-159.
11. Murphy, K. M., Topel, R. H. (2003). The economic value of medical research. In *Measuring the gains from medical research: An economic approach*, K. M. Murphy and R. H. Topel (Eds.). Chicago: The University of Chicago Press.
12. Newhouse, J. P. (1992). Medical care costs: how much welfare loss? *Journal of Economic Perspectives*, 6, 3-21.
13. Nordhaus, W. D. (2003). The health of nations: contribution of improved health to living standards. In *Measuring the gains from medical research: An economic approach*, K. M. Murphy and R. H. Topel (Eds.). Chicago: The University of Chicago Press.
14. Pauly, M. V. (2003). Should we be worried about high real medical spending growth in the United States? An economist's view of what to worry about – and what not to worry about – in understanding health spending growth. *Health Affairs Web Exclusive*, January 8, 2003:W3-15 – W3-27.

15. Reinhardt, U. E., Hussey, P. S., & Anderson, G. F. (2004). U.S. Health care spending in an international context: why is U.S. health care spending so high, and can we afford it? *Health Affairs*, 23(3), 10-25.
16. Reinhardt, U. E. (2003). Can efficiency be left to the market? In *Uncertain times: Kenneth Arrow and the changing economics of health care*, P. J. Hammer, D. Haas-Wilson, M. A. Peterson, and W. M. Sage (Eds.). Durham: Duke University Press.
17. Triplett, J. E. (Ed.). (1999). *Measuring the prices of medical treatments*. Washington, D.C.: Brookings Institution Press.

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Leon Evans	Executive Director, Center for Health Care Services
Allan D. Feezor	Chief Planning Officer, University Health Systems of Eastern Carolina
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Alissa Fox	Executive Director for Policy, Blue Cross Blue Shield Association

Irene Fraser, PhD	Director, Center for Organization, Delivery and Markets, Agency for Healthcare Research and Quality
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Martin Hickey, MD	Chair, NM Hospitals & Health Systems Association; former CEO, Lovelace Health Systems; BOD, Lovelace Clinic Foundation
Daniel L. Hiebert	Associate Administrator, Rockwood Clinic; Chairman, Healthcare Committee, Spokane Regional Chamber of Commerce
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Tom Holt, CAE	Executive Director, Oregon State Pharmacy Association
James T. Howell, MD MPH	Chair, Department of Rural Medicine, Nova Southeastern College of Osteopathic Medicine; Former Secretary, Florida Department of Health
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Lucinda Long	Vice President for Global Policy/Global Professional Affairs, Wyeth Pharmaceuticals
Juanita Lovett, PhD	Clinical Psychologist; Member, Board of Directors, Wye River Group on Healthcare
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Ian Morrison	Founding Partner, Strategic Health Initiatives
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Wendy Selig	Vice President of Legislative Affairs, American Cancer Society
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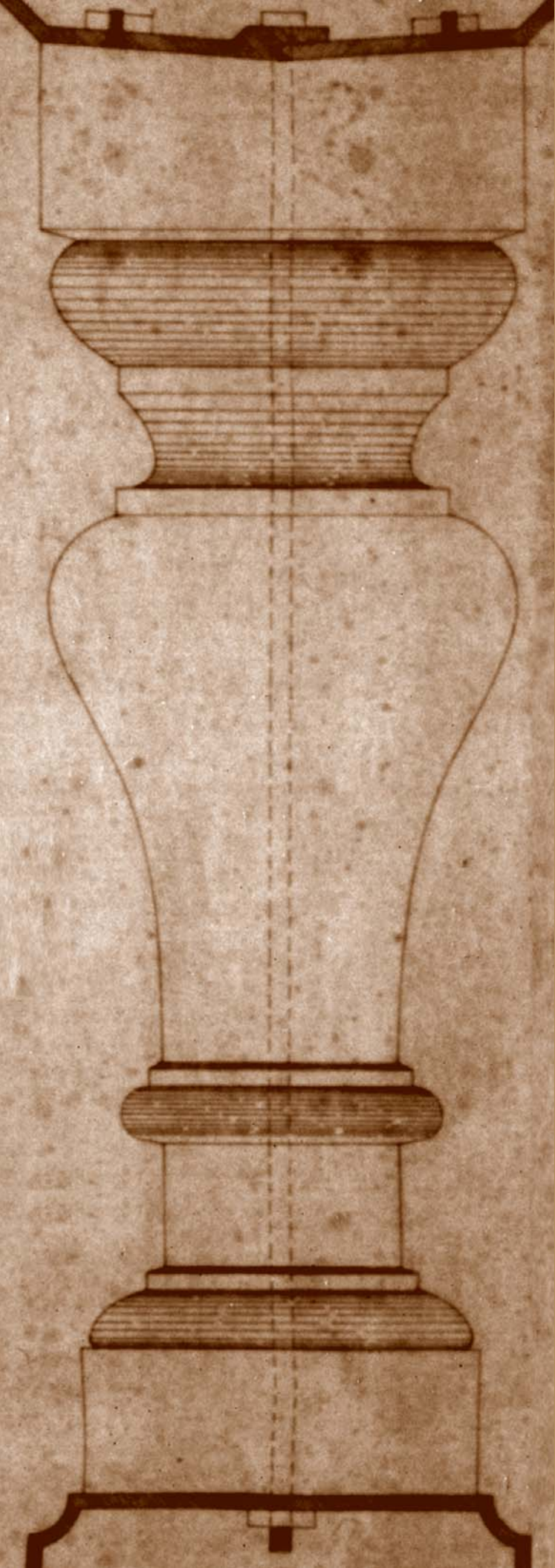
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